

## **Customer Reactions and Competitive Responses to Mergers in a B2B Service Industry**

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## **ABSTRACT**

The primary aim of this doctoral research was to empirically investigate customer and competitive reactions to post-M&A integration through both quantitative and qualitative customer perspectives, and to identify the business impact of these reactions and its potential causal mechanisms. The topic is widely recognised among practitioners but has received relatively little attention in the academic literature (Anderson et al., 2001; Schweiger and Very, 2003), which might explain the reason why decisive factors for M&A success are still elusive (Homburg and Bucerius, 2005).

The research was carried out in three stages. Project-1 engaged in a systematic review of the marketing literature in order to build a foundation of knowledge on customer-supplier relationships. The review results were integrated into a literature-based conceptual model, indicating the link between customer relationship management activities, customer loyalty and company performance, under ‘business as usual’ conditions. Based on this conceptual model, Project-2 empirically investigated post-M&A business issues through a single case study of multi-business mergers. Interviews with key account managers and their customers suggested a potential underlying causal mechanism of integration effects on customer-supplier relationships. Finally, Project-3 tested the key variables and interrelationships identified in Project-2 through a survey method in order to begin the process of generalization. Survey responses from business-to-business (B2B) customers were analysed by applying Structural Equation Modelling, which indicated potential causal correlations between integration activities, perceived changes in customer relationship variables and changes in the level of behavioural customer loyalty during the post-M&A period.

The findings suggest a possible answer to the overall research question — what are the key factors that affect post-M&A business performance, or more specifically, what are the key variables that influence customer reactions and why/how? Post-M&A integration actions were found to trigger customer relationship issues. For instance, the integration of operations and IT systems leads to perceived deterioration in service performance, while salesforce integration creates organisational issues such as employees’ internally focused attitudes, which result in perceived declines in customer

orientation and account management quality. Furthermore, integration actions as a whole generate an unstable business environment that promotes intensive competitive attacks. Some contextual factors which magnify these issues were also identified, specifically the complexity of the merger/integration and the depth of the pre-merger customer relationships. The issues above negatively influence customers' purchase intentions and, in the worst cases, drove customers to terminate contracts, which would exert a negative impact on the merging parties' business performance during the post-M&A integration period.

The research has made a step towards a better understanding of how customers and competitors respond to post-M&A integration and the mechanisms by which those responses arise, particularly within the focal industry context of this study. It contributes to the M&A-integration and performance literature by illuminating the role and drivers of competitive attacks, and customer reactions in determining market-related M&A performance. It also contributes to the M&A-integration and business network literature by suggesting the mechanisms through which the customer-supplier relationship is impacted by post-M&A integration activities. Finally, contributions to practice and methodological development, as well as limitations and implications for future research, are also presented.

## **ACKNOWLEDGEMENTS**

Completing this doctoral research has required significant personal commitment, but without the contributions of many people involved, I could not have reached this stage. Since it is not possible to recognise every one of the contributors here, I would like to highlight several of them who deserve distinct recognition.

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## **DISSEMINATION TO DATE**

### **Conference Papers**

Title: "Customer Responses to Mergers and Acquisitions: A Conceptual Framework and Research Agenda"

Co-author: Richard Schoenberg

Conference: British Academy of Management Conference, Brighton, UK, September 2009

Title: "Customers: The Forgotten Stakeholder in Mergers and Acquisitions"

Co-author: Richard Schoenberg

Conference: Strategic Management Society Annual Conference, Miami, Florida, USA, November 2011

### **Journal Papers**

Title: "Customer and Competitor Responses to Mergers and Acquisitions: An Empirical Investigation in the Logistics Industry"

Co-author: Richard Schoenberg

Journal: Advances in Mergers and Acquisitions, Volume 11, 2013

Title: "The Impact of Post-Merger Integration on the Customer-Supplier Relationship"

Co-author: Richard Schoenberg

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# Chapter 1

## Linking Document

### **Customer Reactions and Competitive Responses to Mergers in a B2B Service Industry**

Panel Chair: Prof. Mark Jenkins

Lead Supervisor: Dr. Richard Schoenberg

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## I. INTRODUCTION

### 1. Aim of the Research

The primary aim of this doctoral research was to empirically investigate customer and competitive reactions to post-M&A integration through both quantitative and qualitative customer perspectives, and to identify the business impact of these reactions and its potential causal mechanisms. The topic is widely recognised among practitioners, for instance, M&As deliver no benefits to customers (Sikora, 2005), create customers' fears for service disruptions (Clemente and Greenspan, 1997) and drive competitive attacks (Bekier and Shelton, 2002). However, it has received relatively little attention in the academic literature (Anderson et al., 2001; Schweiger and Very, 2003), which might explain the reason why decisive factors for M&A success are still unknown (Homburg and Bucerius, 2005).

### 2. Background and Overall Research Question

The organisation the author belonged to carried out a series of major acquisitions, and as a result, a global logistics conglomerate was formed. Its revenues grew at a much faster pace than that of its rivals but almost all the growth was attributed to the M&A activities. During the integration period between 2003 and 2005, the organisation recorded a decline in its organic revenue and lost substantial market share, especially in the key markets. Although the organisation finally showed a sign of recovery from the fourth year, it lost a large amount of money due to numerous integration issues.

Almost at the same time, some of the organisation's competitors also suffered from similar post-M&A integration issues. A well-known example in the industry was the acquisition and integration of P&O Nedlloyd by A.P. Moeller-Maersk. They lost approximately 22% of their customer base during the integration period due to its IT system integration problems (Lisch, 2009). UPS and Menlo Worldwide Forwarding was another example. Their integration resulted in decreased revenues due to some customer losses and increased costs (UPS, 2006).

The situation above can be explained as ‘**1 + 1 < 2**’ (opposite to the synergy equation), which drove the author to begin the doctoral research with a simple question — what are the key factors that (negatively) affect post-M&A business performance? Conventional business wisdom suggests that it can be customer reactions (i.e. increase or decrease in business with the supplier) that affect company performance. For instance, customer loss is one of the key risk factors of value leakage during the post-M&A integration (Gates and Very, 2003) and mitigating negative effects on customers is a critical element for success of M&As (Schweiger, 2002). But a question still remained — what are the key variables that (negatively) influence customer reactions during the post-M&A integration period and why/how?

In search of possible answers to this overall research question, convincing studies were hardly found in the literature. Academics provide implications with sound empirical evidence, however they tend to focus on company internal issues, such as integration process, cultural conflict and synergy realization. Therefore, even the frequently cited integration management studies (e.g. Haspeslagh and Jemison, 1991) cannot thoroughly answer the above questions. Practitioners, on the other hand, discuss both company internal issues and external issues, such as lost customers and competitive attacks (e.g. Bekier and Shelton, 2002). However, most of their arguments are based on anecdotal evidence, thus they cannot show exactly what factors are critical and why/how.

Considering the above, this research is designed to empirically investigate practical business issues, hence its findings are expected to contribute not only to the academic literature but also to the business world by providing suggestions to mitigate the negative impacts of post-M&A integration and thus improve organisational learning and business performance for the future.

### **3. Key Issues around M&A**

Mergers and acquisitions (M&A) are predominantly driven by strategic objectives, for instance, approximately 90% of historic M&A deals were made for the purpose of corporate development (Bower, 2001). However, since premiums are paid in most M&A deals, synergies must be captured in order to create value through M&A (Sirower, 1997) and the value is created only through post-M&A integration (Haspeslagh and Jemison,

1991). Post-M&A integration is the critical final stage of M&A activities and defined as an interactive process between merging parties to transfer strategic capabilities such as operational resource, functional skills and general management skills (Haspeslagh and Jemison, 1991). There are three types of integration activities with different challenges: 1) procedural integration or standardization, 2) physical integration, and 3) managerial and sociocultural integration (Shrivastava, 1986), which are normally carried out within one to two years after completion of an M&A deal (Homburg and Bucerius, 2005; Gates and Very, 2003).

Considering the high M&A failure rates of 44-45% (Schoenberg, 2006), it would be possible to assume that post-M&A integration causes unexpected problems internally and externally. It is argued that "*Managers and employees for whom uncertainty has been created mentally disengage and must be re-enlisted... competitors who sense a moment of potential weakness will redouble their efforts and focus on the market franchise of the acquired organization... Customers wonder if their levels of service will change*" (Haspeslagh and Jemison, 1991: P179). However, the full set of variables that determine the success or failure of integration actions have not yet been identified (Schweiger and Goulet, 2000).

In this section, key issues around M&A are discussed based on previous research findings and arguments in the literature. Particular focus is given to the impact of post-M&A integration on key stakeholders by applying the 3C framework (Ohmae, 1991) — Company, Customer and Competitor. Through the discussions, identified gaps in knowledge are presented.

### **1) Key Issues Documented in The Literature**

#### **A. M&A Integration and Company**

In general, organisational integration is vital for synergy realization (Larsson and Finkelstein, 1999), which requires high levels of consolidation, standardisation and coordination (Schweiger and Very, 2003) that lead to closing facilities, cutting people and changing processes (Bower, 2001). The key challenges are people and value/cultural issues on top of process issues (Bower, 2001).

In terms of people issues, it is known that low employee resistance is one of the key criteria for post-M&A synergy realization (Larsson and Finkelstein, 1999; Larsson et al., 2004). However, post-M&A integration creates or enhances employees' individual uncertainty (Hartog, 2004) and organisational politics (Schweiger and Very, 2003), that generate employees' internally focused attitude (Bekier and Shelton, 2002; Schweiger, 2002). Together with knowledge leakage due to the departure of key people (Schweiger and Very, 2003), these issues negatively affect the level of employee morale (Clemente and Greenspan, 1997), quality of day-to-day operations (Bekier and Shelton, 2002; Palmatier et al., 2007) and organisational productivity especially in service industries (Schweiger, 2002). Furthermore, it is also known that M&A/integration creates long-term instability in a target firm's top management team, which results in poor financial performance after M&A (Krug and Aguilera, 2005).

The people issues are, in many cases, driven by conflicts of merging parties' organisational cultures (Brahy, 2006), where many studies indicate the link between organisational cultural differences and post-M&A financial performance (e.g. Datta, 1991; Very et al., 1997). However, there is a lack of consensus in those studies (Schoenberg, 2000) and inconsistent results are reported between accounting and financial methods (Stahl and Voigt, 2004; 2005). Nevertheless, a longitudinal study of socio-cultural integration provides valuable insights. Ashkanasy and Holmes (1995) found that it starts with a period of shock and retreat, followed by rapid adaptation and change. They also found that even for a merger of compatible organisational cultures, serious people problems emerge. They state that it takes around 18 months to stabilize the post-merger situation and after two years, the merger effect is overtaken by economic factors.

Furthermore, it is claimed that organisational identity (who we are: employees' perceived oneness with the organisation) is as influential as organisational culture (how we do things: norms/patterns of behaviour in the group) during the post-M&A integration period (Zaheer et al., 2003). It is known that employees' identification with a newly merged organisation determines their level of motivation (Van Dick et al., 2006), which is one of the key success factors of post-M&A integration (Bartels et al., 2006).

## B. M&A Integration and Customer

It is known that one of the critical success factors for post-M&A integration is customer retention (Zollo and Meier, 2008) as well as perceived customer value (Dalziel, 2007). However, companies in M&A tend to focus too much on cost savings and deliver no particular benefits to their customers (Sikora, 2005). In a business-to-business setting, key customers' buying behaviours sometimes make it hard for merging parties to achieve expected synergies (Öberg, 2008), whereas in a business-to-consumer setting, customers in general tend to perceive corporate acquisitions negatively and intend to switch brands after the announcement (Thorbjørnsen and Dahlén, 2011). In terms of the impact of post-M&A integration on customers, the following factors have been discussed in the literature: salesforce, customer orientation, operations and products.

The salesforce is a key messenger of M&A benefits to important customers (Bekier and Shelton, 2002) but a complex integration process creates an internally focused attitude. As a result customers are ignored (Meyer, 2008), with no clear customer communication (Clemente and Greenspan, 1997), which fosters uncertainty among customers (Homburg and Bucerius, 2006). Perceived customer orientation, or supplier commitment, plays a key role particularly during the post-M&A integration period. Customers tend not to be convinced by the acquirer's reputation (Anderson et al., 2001) and may potentially decide to terminate the relationship when they do not feel confident about the acquirer's commitment (Havila and Salmi, 2000). On the other hand, merging parties' high levels of customer orientation mitigates the negative impact of post-M&A integration (Homburg and Bucerius, 2005) and even enables their market expansion (Cording et al., 2008). Changes in operational processes and performance during the post-M&A integration period can be very detrimental. Customers are concerned about inconsistency of supply (Anderson et al., 2003) and service disruptions (Clemente and Greenspan, 1997), thus when operational performance deteriorates they react negatively e.g. consider switching suppliers (Bocconcelli et al., 2006). A broadened product portfolio is a clear positive factor. Customers positively perceive extended product variations through post-M&A integration (Anderson et al., 2003) thus revenue synergies are expected from broadened product offerings (Schweiger and Very, 2003).

### C. M&A Integration and Competitor

It is known from the competitive strategy literature that competitors quickly and strongly respond if they perceive competitive threats (Porter, 1980). A great number of responses are expected when a firm's market action has a visible competitive impact on its rivals (Chen et al., 1992) and M&A is the most visible competitive move among others (Chen and Miller, 1994).

Competitive responses can become fierce when integration starts. An unstable post M&A business environment creates customers' fears of service disruptions, which enhances competitive attacks (Clemente and Greenspan, 1997), by attempting to disrupt the merging parties' customer relationship (Schweiger, 2002), for instance, sales pitches to customers with aggressive price offerings and headhunting approaches for talented personnel at an acquired firm (Bekier and Shelton, 2002). The effects are well summarised in the following argument: "*...the best time to attack your competitor is when he is in the middle of a complex merger process. This is when his customers are neglected, his key employees are likely to leave... and this is the time when he is least likely to be able to muster a coordinated response to any form of attack*" (Meyer, 2008: P211).

Furthermore, competitive attacks may lead to customer losses, which result in value leakage during the post-M&A integration period (Gates and Very, 2003; Meyer, 2008). Studies of the PricewaterhouseCoopers (PWC) merger case in the United Kingdom indicate that PWC substantially lost its market share in three years after the merger (Duxbury et al., 2007; Pong and Burnett, 2006), which might have been due to strong competitive attacks during their integration period .

#### **2) Identified Gap in Knowledge**

The literature provides a wealth of knowledge in many aspects of M&A and its impacts on business; however, at the same time, there are some limitations in each field of study.

**Integration and Company:** This may be one of the most developed fields in M&A research, providing important insights of post-M&A integration and its impact on

employees of the merging organisations. However, a potential limitation would be that researchers study and discuss only the company's internal issues without taking external factors into consideration. Some suggest, for example, that M&A research should adopt a multidisciplinary approach and examine internal as well as external factors that impact on integration outcomes (Javidan et al., 2004).

**Integration and Customer:** This has a limited research history and the topics have received limited attention in the literature (Schweiger and Very, 2003). M&A-integration and performance studies (e.g. Cording et al., 2008; Homburg and Bucerius, 2005; Zollo and Meier, 2008) provide structural models assessing the link between post-M&A integration and marketing factors. However, these studies treat customers as aggregates (e.g. market share) and do not explicitly study the customer-supplier relationship issues (Anderson et al., 2003), therefore, one cannot know how integration impacts on customer relationships. M&A-integration and business network studies (e.g. Anderson et al., 2001; Bocconcini et al., 2006; Havila and Salmi, 2000; Öberg, 2008) provide insights on how customer-supplier relationships are affected by M&A activity from a business network perspective. However, since almost all of the studies are exploratory case studies, one cannot see a generalized view of the impact of integration on customer relationships.

**Integration and Competitor:** Competitive attacks during M&A integration are a well-known phenomenon in business practice, which are often reported in practitioner papers. From an academic perspective, this would be the least developed field both in competitive strategy and M&A research, but at the same time, a salient area for future research (Schweiger and Very, 2003).

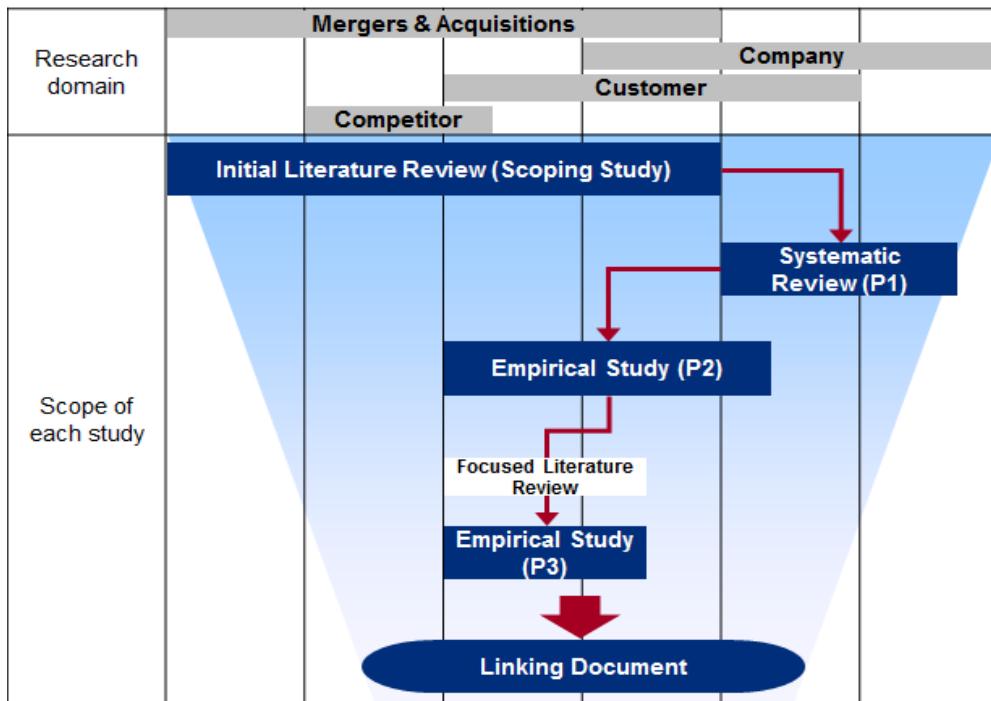
To conclude, most would agree that post-M&A integration generates cultural clash, which negatively affects motivation, day-to-day operations and productivity. The literature provides plenty of evidence for that. However, the attempts to link cultural differences with financial/accounting measures have not yet reached a consensus. This might imply that the internal factors alone cannot explain the phenomenon. Studies on the external factors, on the other hand, are largely underdeveloped. Some scholars (e.g. Haspeslagh and Jemison, 1991; Schweiger and Very, 2003) point out the importance of considering customer reactions and competitive responses. However, the literature

search conducted by the author indicated that there has been no empirical study that investigates correlations between the internal and external factors, and their impacts on business performance, in a business-to-business setting. The fact that market-related issues have been neglected for so long in the literature might explain the reason why decisive factors for M&A success are still unknown (Homburg and Bucerius, 2005).

## **II. RESEARCH METHODOLOGY**

### **1. Research Structure**

This research was initiated by the overall research question: What are the key factors that (negatively) affect post-M&A business performance, or more specifically, what are the key variables that (negatively) influence customer reactions and why/how? Based on the overall research question and the above identified gap in knowledge, a series of research projects have been structured as follows in order to systematically build knowledge toward that end. Firstly, a systematic literature review (Project 1) was carried out to build a knowledge foundation of customer-supplier relationships in ‘business as usual’ conditions. The focus was on customer perceptions and reactions (customer’s view) as well as customer relationships and business performance (supplier’s view). Secondly, an empirical study (Project-2) was designed to assess/verify the key findings in Project-1 and then explore the customer relationship variables impacted by post-M&A integration through a single case study of multi-business mergers. This focused on ‘M&A’, ‘Customer’ and ‘Company’ as a research domain, with ‘Competitor’ as part of the customer relationship elements. Thirdly, a further empirical study (Project-3) was designed to test the key variables identified in Project-2 through a survey method in order to begin the process of generalisation. This focused on ‘M&A’ and ‘Customer’ as a research domain, with ‘Company’ and ‘Competitor’ as part of the customer relationship elements. Finally, all the key findings and contributions were synthesized in the Linking Document. The research domain and scope of the series of studies during the Executive Doctorate Programme are visualized as follows (**Ch-1 Figure 1**):



**Ch-1 Figure 1: Research Field and Scope**

## **2. Philosophical Position**

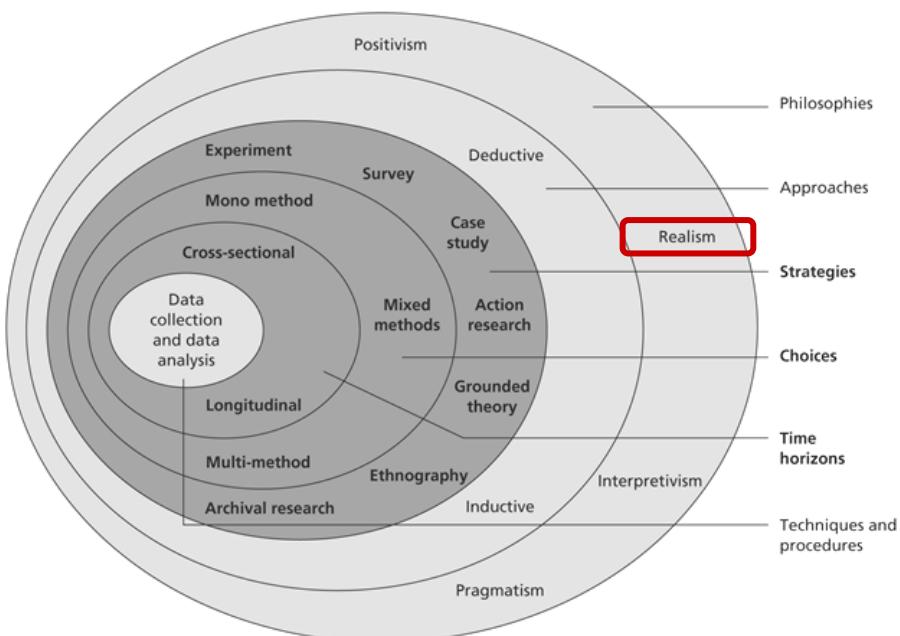
The primary paradigm applied in these research projects is ‘Realist’ — sharing Positivism’s view of causal relations and Interpretivism’s views on social reality but arguing the importance of underlying structures and mechanisms that can be revealed and explained by building models (Blaikie, 1995). Layder (1993: P16, quoted in Dobson, 2001) states that “*a key aspect of the realist project is a concern with causality and the identification of the causal mechanisms in social phenomena*”.

The rationale behind the application of the paradigm is attributed to the author’s personality and business background – over 20 years of professional experience in a Marketing & Sales environment at multi-national corporations – which has driven the author to focus on a combination of hard facts and underlying soft issues affecting a firm’s top/bottom-line. In principle, Project 2 is designed to explore the what/why/how factors, which are then tested with larger samples to present a causal model in Project-3. This approach can be best fitted to the realism research design principle presented by Sobh and Perry (2006) who claim:

- A market place complexity and context should be investigated through why/how questions with qualitative methods,

- A conceptual framework, or research propositions, should be built prior to an empirical research that is to confirm or disconfirm the framework,
- Triangulation is the heart of the realism paradigm to provide a single reality,
- Qualitative data analysis should focus on reasons why, or interpretations of relevant data to the initial conceptual model, to identify underlying mechanisms,
- Data analysis results would lead to a generation of empirically based conceptual frameworks that could be operationalized for testing by large scale survey later.

Although the Realist's view cannot be fully supported by that from the opposite side of paradigms, such as Postmodernism, it would not cause a serious issue based on the fact that most scholars in Marketing and M&A fields are likely to take the Realist (or Positivist) position when linking customer or people issues with business performance (e.g. Ashkanasy and Holmes, 1995; Birkinshaw et al., 2001). Furthermore, it is claimed that "*Business and management research is often a mixture between positivist and interpretivist, perhaps reflecting the stance of realism...*" (Saunders et al., 2007: P7). The applied research paradigm implies appropriate research strategies, methods and techniques. The concept is well illustrated by the research onion (Saunders et al., 2007) in **Ch-1 Figure 2**. For instance, the author as a "Realist" is recommended to apply a deductive approach with a case study and/or survey strategy.



**Ch-1 Figure 2: The Research Onion** (Saunders et al., 2007)

### **3. Research Outline**

The following is an outline of the research design including research questions and unit of analysis, as well as data collection/analysis methods applied in each research project.

#### ***1) Project-1***

The objective of this systematic literature review was to build a knowledge foundation of customer-supplier relationships in ‘business as usual’ conditions. Since there have been very few empirical studies to date that investigate the impact of M&A on customer-supplier relationships, it would be important to know what was already known in the customer relationship management field and what methods had proved to be valid and reliable.

The unit of analysis was a customer-supplier relationship in a ‘business as usual’ situation (i.e. not in a post-M&A integration environment), focusing on a business-to-business (B2B) context. The following two research questions were explored in this study — 1) Customer’s perspective: What are the key factors that affect a customer’s perceptions and reactions? 2) Supplier’s perspective: What are the key elements of customer relationship activities that impact on a firm’s business performance?

Based on a defined systematic review protocol, 50 papers were selected from ten years of empirical studies, from which key variables and interrelationships were identified. Those were then synthesized by applying a mapping technique (Huff and Jenkins, 2002). The end product of this literature review was a literature-based causal map and a conceptual model, which indicates the link between customer relationship management activities, external/conditional factors, customer relationship, customer loyalty and company performance, under ‘business as usual’ conditions.

#### ***2) Project-2***

The objective of this study was to empirically investigate the impact of post-M&A integration on merging parties and their customers, focusing particularly on the key factors and mechanisms. This was undertaken in a logistics company ('the case-study

organisation') that carried out a series of major acquisitions that underwent full integration between 2003 and 2005. The research domain was 'M&A', 'Customer' and 'Company', while 'Competitor' was included as part of the customer relationship elements.

The following three research questions were explored in this study — 1) How was the business performance of the case study organisation during its integration period compared to that in its pre/post-integration period? 2) What are the key customer relationship variables in the logistics industry and which variables were impacted by the merger integration? 3) How/why does the integration affect those customer relationship variables? The unit of analysis was the customer-supplier relationship within the context of the case-study organisation's post-M&A integration phase.

Explanatory case study methodology was adopted as the research approach, while archival records, documentation information and interviews were applied as the sources of evidence (Yin, 2003). In terms of the interviews, a semi-structured interview method with a Q-sort technique was adopted to collect both quantitative and qualitative data in an efficient and effective manner. The interviews were conducted with 20 supplier key account managers (KAMs) and 20 customers, which brought quantitative data as well as rich qualitative data. In order to systematically analyse the qualitative data, the concept of 'structured data displays' (Lillis, 1999) was adopted together with a mapping technique (Huff and Jenkins, 2002). The end product of this study was an identified set of critical customer relationship variables that were affected by the post-M&A integration, and potential underlining mechanisms through which these variables were affected.

### **3) Project-3**

The objective of this study was to test the key variables/interrelationships identified in Project-2 and build a model explaining how post-M&A integration affects customer relationships and competitive responses, as well as customers purchase intentions. Through that approach, the study aimed to begin the process of generalization. The research domain was 'M&A' and 'Customer', while 'Company' and 'Competitor' were included as part of the customer relationship elements.

The following two research questions were explored in this study — 1) What are the key integration factors that affect customer relationship variables during the supplier's post-M&A integration period? 2) What are the key customer relationship variables that influence the level of customer loyalty during the integration period? Considering the objective of this study, the focus was given to the behavioural aspect of customer loyalty, which is defined as a customer's intention to continue or extend business with the supplier (e.g. Cannon and Homburg, 2001; Lam et al., 2004). The unit of analysis was a customer-supplier relationship (from the customers' point of view) during the supplier's post-M&A integration phase in a B2B service context. Suppliers were logistics service providers and customers were mainly manufacturers that use the services (i.e. purchasing decision makers, influencers and users of the logistics services). Both an acquirer's customers and a target's customers were considered.

Drawing on the M&A and customer relationship literature and previous research results, a theoretical framework was developed, which addressed the link between integration activities and behavioural customer loyalty during the post-M&A integration period. Guided by the framework, a theoretical model with research hypotheses and corresponding measures was developed.

A questionnaire survey method was adopted and 139 usable responses from customers of merging logistics companies were collected mainly through social media (e.g. LinkedIn Groups). The collected data were then analysed using Structural Equation Modelling which allows simultaneous modelling of relationships among multiple variables (Haenlein and Kaplan, 2004). The end product of this study was a structural model indicating potential causal correlations between integration activities, customer relationship variables and competitive responses, and behavioural customer loyalty during the post-M&A period.

#### **4) Summary**

The scope of each research project is summarised in **Ch-1 Table 1**, while the data collection and analysis method is summarised in **Ch-1 Table 2**:

Overall research question		What are the key factors that affect post-M&A business performance, or more specifically, what are the key variables that influence customer reactions and why/how?		
	Type of study	Research domain	Research question	Unit of analysis
P1	Systematic literature review	Customer and Company	<ul style="list-style-type: none"> <li>• What are the key factors that affect a customer's perceptions and reactions in a business-to-business setting?</li> <li>• What are the key elements of customer relationship management activities that impact on a firm's business performance in a business-to-business setting?</li> </ul>	<ul style="list-style-type: none"> <li>• Customer-supplier relationship</li> <li>• Business-as-usual in a B2B setting</li> <li>• Perceptions of suppliers and customers</li> </ul>
P2	Empirical study (case study)	M&A, Customer and Company + Competitor	<ul style="list-style-type: none"> <li>• How was the business performance of the case study organisation during its integration period compared to that in its pre/post-integration period?</li> <li>• What are the key customer relationship variables in the logistics industry and which variables are impacted by the integration?</li> <li>• How/why does the integration affect those customer relationship variables?</li> </ul>	<ul style="list-style-type: none"> <li>• Customer-supplier relationship</li> <li>• The case study organisation's post-M&amp;A integration phase</li> <li>• Perceptions of supplier KAMs and the combined firm's customers – MNC's</li> </ul>
P3	Empirical study (survey)	M&A and Customer + Company and Competitor	<ul style="list-style-type: none"> <li>• What are the key factors that affect customer relationship variables during the supplier's post-M&amp;A integration period?</li> <li>• What are the key customer relationship variables that influence the level of customer loyalty during the integration period?</li> </ul>	<ul style="list-style-type: none"> <li>• Customer-supplier relationship</li> <li>• Logistics service providers' post-M&amp;A integration phase</li> <li>• Perceptions of acquirers' customers and targets' customers</li> </ul>

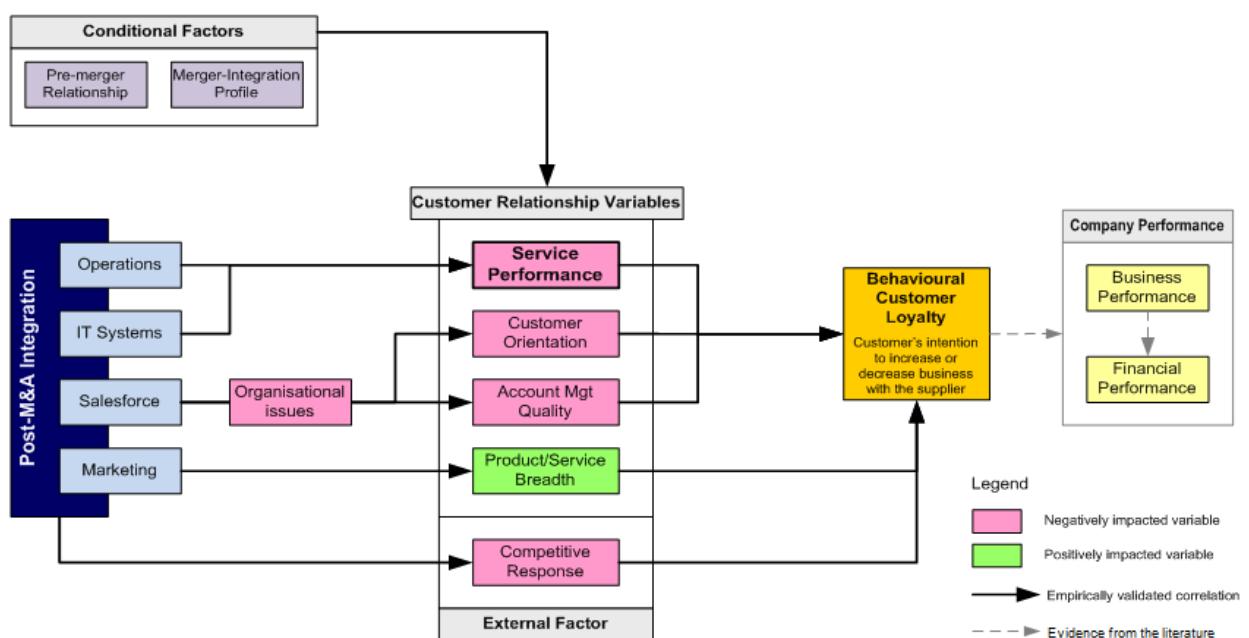
**Ch-1 Table 1: Scope of Projects 1-3**

	Context	Data source	Supplier	Customer	Data collection method	Data analysis method	End product
P1	Business-as-usual	Selected scholarly journals, books <b>50</b> papers	Various (MNCs, SMEs)	Various (MNCs, SMEs)	Systematic review	Mapping technique	Literature-based conceptual model
P2	Post-M&A integration	Archival records, Documentation and Interviews <b>20</b> customers + <b>20</b> supplier KAMs	The case study organisation (MNC)	Various (MNCs)	Case study + Semi-structured interviews with Q-sort technique	Structured data displays + Mapping technique	Underlying causal mechanism
P3	Post-M&A integration	Target samples mainly from social media <b>139</b> respondents	Logistics service providers (MNCs)	Various (MNCs, SMEs)	Online questionnaire survey	Structural equation modelling	Structural model

**Ch-1 Table 2: Data Collection/Analysis Method in Projects 1-3**

### III. KEY FINDINGS

By synthesising the key findings from the series of studies, an integrated M&A impact model has been developed, which explains how post-M&A integration affects customer relationship variables and competitive responses, which in turn influence behavioural customer loyalty and then company performance (**Ch-1 Figure 3**):



**Ch-1 Figure 3: Integrated M&A Impact Model**

**Integration actions and their impacts:** The research revealed that a series of post-M&A integration actions trigger changes in most of the key customer relationship variables. Operational integration, IT system integration, organisational restructuring (particularly salesforce integration) and marketing integration were found to be influential in customer relationships among other things. This finding is consistent with prior research (Gates and Very, 2003) that indicates around 70% of companies measure the integration progress of operations, product portfolio, people and IT systems to assess their integration performance. It was also revealed that the customer relationship variables substantially impacted by those integration actions are service performance, customer orientation, account management quality and product/service breadth, among other things. This finding provides empirical support to the anecdotal discussions on integration effects (Bekier and Shelton, 2002; Clemente and Greenspan, 1997).

**Impact of operational and IT system integration:** The qualitative study (Project-2) implied that large-scale operational and IT system integration damages the service performance of the organisation, while the quantitative study (Project-3) indicated that incomplete IT system integration damages service performance from the customer's point of view. Both findings provide empirical support to the anecdotal discussion in practitioner journals (Bekier and Shelton, 2002; Palmatier et al., 2007) and are consistent with the argument in the M&A/IT literature (McKiernan and Merali, 1995) that the urgent need for operational integration often leads to incomplete IT system integration and malfunctions, which has a detrimental effect on service quality.

**Impact of salesforce integration:** The research revealed that post-M&A organisational restructuring, particularly salesforce integration, creates organisational issues such as employees' internally focused attitude, employee dissatisfaction and knowledge leakage, which result in a decline in customer orientation and account management quality. The finding provides empirical support to the anecdotal discussion in the practitioner journals (Bekier and Shelton, 2002; Clemente and Greenspan, 1997) and is consistent with the arguments in the M&A literature — employee satisfaction strongly affects organisational productivity especially in service industries (Schweiger, 2002), a complex integration process fosters employees' internally focused attitude with internal politics and as a result customers are ignored (Meyer, 2008) and proper measurements of salesforce integration can help the merging parties to focus attention on their customers during the integration (Gates and Very, 2003).

**Impact of marketing integration:** The research indicated that complete marketing integration leads to a broadened product/service portfolio. The positive impact is recognised not only by suppliers but also by customers. This is in line with the findings of previous studies (e.g. Anderson et al., 2003) that customers positively perceive extended product variations.

**Influence of conditional factors:** The research indicated that the complexity of the merger/integration negatively influences customers' perceptions about changes

in product breadth and account management quality (i.e. the greater the complexity, the worse the perceived product breadth and account management quality), and, at the same time, positively influences competitive response (i.e. the greater the complexity, the greater the competitive response). The former finding is relevant to previous research in the M&A literature that a cross-border merger has a unique set of challenges and its integration is more difficult than that of a domestic merger (Shimizu et al., 2004). The latter finding is in line with the previous research on competitive responses (e.g. Chen et al., 1992) that when a firm's market action has a visible competitive impact on its rivals, a great number of responses are to be expected. It was also indicated that the depth of the pre-merger relationships negatively influences customers' perceptions about the changes in customer orientation and account management quality (i.e. the deeper the pre-merger relationships, the worse the perceived change), and at the same time, positively influences competitive response (i.e. the deeper the pre-merger relationships, the greater the competitive response). This is a new finding not documented in the M&A literature.

**Customer relationship variables and customer loyalty:** The literature review (Project-1) revealed that customer relationship variables, such as account management quality, directly or indirectly influence behavioural customer loyalty under 'business as usual' conditions (e.g. Doney and Cannon, 1997), where behavioural customer loyalty is defined as a customer's intention to continue or extend business with the supplier (e.g. Cannon and Homburg, 2001; Lam et al., 2004).

**Service performance:** The research indicated that a deterioration in service performance results in decreased behavioural customer loyalty during the M&A integration period. This is consistent with the previous study findings in the marketing literature that product/service performance is positively associated with behavioural customer loyalty under 'business as usual' conditions (Fynes and Voss, 2002; Heskett et al., 1994; Patterson et al., 1997). A similar finding is also reported in the M&A-integration and business network literature that customer reactions are largely influenced by changes in operational procedures (Bocconcelli et al., 2006). Furthermore, this research has highlighted the over-riding influence of service performance over other variables, i.e. perceived change in service performance is

by far the most influential predictor for behavioural customer loyalty. This may be largely attributed to the nature of the logistics industry, where reliable on-time delivery performance is one of the most important order-winning criteria (Transport Intelligence, 2006). Nevertheless, this is a new finding not documented in the literature.

**Customer orientation:** The qualitative study indicated that a decline in customer orientation results in decreased behavioural customer loyalty during the M&A integration period. This is consistent with the previous study findings in the M&A literature that the level of customer orientation is positively associated with market expansion performance (Cording et al., 2008) and a high level of customer orientation mitigates the negative impact of post-M&A integration on market-related performance (Homburg and Bucerius, 2005). However, the quantitative study implied the over-riding influence of service performance on customer orientation, which suggests that customers may switch suppliers when service performance is perceived to have deteriorated, regardless of changes in customer orientation. This may be a particular effect during the ‘unstable’ post-M&A integration period especially in the logistics industry; nevertheless, it has not been documented in the M&A literature.

**Account management quality:** The qualitative study indicated that a decline in account management quality results in decreased behavioural customer loyalty during the M&A integration period. This is consistent with previous research in the marketing literature that account management quality is positively associated with customer trust in the supplier and customer commitment to the supplier, which leads to behavioural customer loyalty under ‘business as usual’ conditions (de Ruyter et al., 2001). However, the quantitative study implied the over-riding influence of service performance on account management quality, which suggests that customers may switch suppliers when service performance is perceived to have deteriorated, even if account management quality is perceived to have improved. This may be a particular effect during the ‘unstable’ post-M&A integration period especially in the logistics industry; nevertheless, it has not been documented in the M&A literature.

**Product/service breadth:** The research indicated that a broadened product/service portfolio directly contributes to an increase in behavioural customer loyalty during the M&A integration period. This is consistent with previous findings in the marketing literature that a supplier's product/service breadth is positively associated with behavioural customer loyalty under 'business as usual' conditions (e.g. Wathne et al., 2001) and the M&A literature that product-line extension results in revenue enhancement (Capron and Hulland, 1999) and revenue synergies can be expected from broadened product offerings (Schweiger and Very, 2003).

**Competitive response:** The qualitative study implied that M&A integration actions, as a whole, generate an unstable business environment for the merging parties, which enhances competitive attacks that in turn result in decreased behavioural customer loyalty. This is also supported by the quantitative study. The finding provides empirical support to the discussions in the M&A literature that competitors focus their efforts to steal market share from the acquired organisation by taking advantage of its weakness (Haspeslagh and Jemison, 1991), competitors attempt to disrupt the acquirer's customer relationships (Schweiger, 2002) and the merging firms become most vulnerable to competitive attacks during the integration period due to internal organisational issues (Meyer, 2008).

**Customer loyalty and business/financial performance:** The literature review revealed that behavioural customer loyalty affects a supplier's business performance, such as share-of-wallet and market share, which directly influences its financial performance, such as profitability and share price (e.g. Kamakura et al., 2002; Rust et al., 1995). This correlation under 'business as usual' conditions was also confirmed for the integration period by this research through the post-M&A case study.

## IV. CONCLUSION

Post-M&A integration is the critical final stage of M&A activities (Haspeslagh and Jemison, 1991) and vital for synergy realization (Larsson and Finkelstein, 1999). It requires high levels of consolidation, standardisation and coordination (Schweiger and Very, 2003), including facility closures, layoffs and process changes (Bower, 2001).

Unfortunately, the business world continues to report high M&A failure rates of 44-45% (Schoenberg, 2006), which may imply that post-M&A integration causes unexpected problems internally and externally. However, the full set of variables that determine the success or failure of integration actions have not yet been identified (Schweiger and Goulet, 2000), possibly because market-related issues have received relatively little attention in the literature (Homburg and Bucerius, 2005).

In the logistics industry, many recent mergers have resulted in the '**1 + 1 < 2**' situation (opposite to the synergy equation), which led to the overall research question in this doctoral research — What are the key factors that (negatively) affect post-M&A business performance? Conventional business wisdom suggests that one of the key factors would be customer reactions but what are the key variables that (negatively) influence customer reactions and why/how?

The ultimate end product of this research is the integrated M&A impact model (**Ch-1 Figure 3**) that suggests a possible answer to the overall research question. Here is the summary. Post-M&A integration actions were found to trigger customer relationship issues, particularly within the context of the logistics industry. For instance, integration of operations and IT systems leads to perceived deterioration in service performance, while salesforce integration creates organisational issues such as employees' internally focused attitudes, which result in perceived declines in customer orientation and account management quality. Furthermore, integration actions as a whole generate an unstable business environment that promotes intensive competitive attacks. Some contextual factors which magnify these issues were also identified, specifically the complexity of the merger/integration and the depth of the pre-merger customer relationships. The issues above negatively influence customers' purchase intentions and, in the worst cases, drive customers to terminate contracts, which would exert a negative impact on the merging parties' business performance during the post-M&A integration period.

## **1. Knowledge Contribution**

The literature review focused on key findings from ten years of empirical studies in the customer relationship management field, in a business-to-business (B2B) setting. As its end product, a literature-based conceptual model has been developed, which indicates

the factors that affect customer's perception/reaction (customer's view) and the elements of customer relationship management activities that impact on winning and retaining business (supplier's view). Put another way, the model indicates the link between customer relationship management activities, customer loyalty and company performance, under 'business as usual' conditions. To summarise, this study contributes to the advancement of the customer relationship management literature by synthesizing fragmented knowledge into a conceptual model, both from customers' and suppliers' viewpoints. The simplified version of the model was endorsed by practical business managers (interviewees) in the empirical study.

The empirical research has brought some new understanding to M&A research in addition to the already known phenomena such as corporate value destruction (e.g. Sirower, 1997), integration process issues (e.g. Haspeslagh and Jemison, 1991), cultural clash (e.g. Ashkanasy and Holmes, 1995), lost identity (e.g. Van Dick et al., 2006) and top management turnover (e.g. Angwin, 2004a). Specifically, it has made the following knowledge contributions to the research field of post-M&A integration:

Firstly, this research has advanced our understanding of customer's reactions to post-M&A integration and their impacts on business performance by identifying a mechanism through which those reactions arise. The qualitative study implied an underlying causal mechanism of the integration effects on customer-supplier relationships, which was then tested by the quantitative study. By synthesising the key findings from the studies, the integrated model (**Ch-1 Figure 3**) has been developed, which provides empirical support to the anecdotal discussions on the topic (e.g. Bekier and Shelton, 2002; Clemente and Greenspan, 1997; Sikora, 2005) with a detailed traceable data set. It is the first M&A research to build such a model based on customer voices in a B2B setting, particularly within the context of the logistics industry. Furthermore, this research helps to connect emerging research streams in the M&A literature — 1) the M&A-integration and performance studies (e.g. Cording et al., 2008; Homburg and Bucerius, 2005; Zollo and Meier, 2008) that treat customer reaction as one of the market metrics but do not explicitly examine the customer-supplier relationship issues, and 2) the M&A-integration and business network studies (e.g. Anderson et al., 2001; Bocconcelli et al., 2006; Havila and Salmi, 2000; Öberg, 2008) that predominantly examine the customer-supplier

relationship issues through exploratory case studies but without linking those to business performance.

Secondly, the magnitude of competitive responses and its impact on behavioural customer loyalty during the post-M&A integration period was empirically investigated for the first time. This is a frequently discussed issue, particularly among practitioners (e.g. Clemente and Greenspan, 1997) but has not been extensively studied by scholars within the M&A research. Schweiger and Very (2003) argue that competitive response is a salient area for future M&A research and this study has made an initial attempt to answer that call. The findings not only bring empirical support to previous discussions and case study findings in the M&A literature (e.g. Meyer, 2008) but also help to connect the M&A literature with the competitive strategy literature, which has already found that M&A is the most influential competitive move on rival firms (Chen and Miller, 1994).

Thirdly, this research has increased our practical understanding of post-M&A integration effects by investigating integration actions by key business function, i.e. operations, IT systems, salesforce and marketing. This approach is new and different from previous studies of M&A-integration and performance (e.g. Cording et al., 2008; Homburg and Bucerius, 2005; Zollo and Meier, 2008), which treat integration as a single, generic construct. In practice, it is known that post-M&A integration is carried out by business function (Schweiger, 2002) and most companies measure the integration progress of the separate functions to assess their integration performance (Gates and Very, 2003). For instance, if integration actions were not investigated by business function, one could not obtain the finding that completeness of IT system integration acts as a key predictor of how customers perceive changes in service performance, particularly in the logistics industry. Furthermore, this research investigated the impact of integration actions on the merging parties and their customers from multiple angles, i.e. operational, marketing and relationship perspectives based on the theory and previous research results in customer relationship management. Through this approach, it identified the over-riding influence of service performance on behavioural customer loyalty over other customer relationship variables, which is a new finding not documented in the marketing and M&A literature.

Finally, this research introduced new constructs as key conditional factors, i.e. 'complexity of merger/integration profile' and 'depth of pre-merger relationships', which were found to have significant impacts on perceived changes in customer relationship variables during the post-M&A integration period. It is noteworthy that prior studies in the customer relationship management field have revealed that other conditional factors, i.e. 'supply importance' and 'supply complexity', affect customer relationships under 'business as usual' conditions (e.g. Cannon and Perreault, 1999; Patterson et al., 1997; Stock, 2005); however, this research suggested that they have no significant influences during the post-M&A integration period. Last but not least, these new constructs, combined with functional integration actions, customer relationship variables and competitive response, have contributed to providing a broader picture of the effects that post-M&A integration has on customer-supplier relationships.

In summary, this research has made a step towards a better understanding of how customers and competitors respond to post-M&A integration and the mechanisms by which those responses arise, particularly within the context of the logistics industry. It contributes to the M&A-integration and performance literature (e.g. Cording et al., 2008; Homburg and Bucerius, 2005; Zollo and Meier, 2008) by illuminating the role and drivers of competitive attacks and customer reactions in determining market-related M&A performance. It also makes contributions to the M&A-integration and business network literature (e.g. Anderson et al., 2001; Bocconcelli et al., 2006; Havila and Salmi, 2000; Öberg, 2008) by suggesting the mechanisms through which the customer-supplier relationship is impacted by post-M&A integration activities.

## **2. Methodological Contribution**

In addition to the knowledge contributions above, this research also made the following methodological contributions, which can be applied to most studies in the business management field. They are: 1) an interview technique enabling participants to focus on the research topic and explore their past experiences in a logical manner within the agreed interview timeframe, 2) qualitative data analysis techniques to systematically analyse collected data and identify potential causal links, and 3) a survey data collection technique using social media to identify and approach large pools of target business managers.

Firstly, a relatively novel application of the Q-sorting technique was introduced in this research to collect both quantitative and qualitative data during interviews in an efficient/effective manner. In general, managers (customers) will agree to be interviewed when the topic is interesting and relevant to their work (Saunders et al., 2007), but it is important to maintain their interest during the interview (Håkansson, 1982). Taking that into consideration, well established interactive techniques were explored and the Q-sorting technique was selected. The technique is a part of 'Q-Methodology' invented by W. Stephenson in 1953, which aims to combine the advantages of both quantitative (standardization) and qualitative (richness) methods (Donner, 2001; Van Exel and De Graaf, 2005). However, despite its decades of history and popularity, the technique has been facing criticisms from some qualitative researchers. This is mainly due to its pre-designed statements and forced distribution method (Watts and Stenner, 2005) as well as its reliability (Van Exel and De Graaf, 2005). To mitigate this methodological scepticism, some modifications were made to the technique and the reliability issue was tested through pilot studies, the results of which were reviewed and endorsed by the research panel. The technique was further modified to fit the research objectives and applied in the following steps: 1) importance rating of the customer relationship variables in a 'business as usual' situation and during the post-M&A integration period, 2) identification of key variables impacted by the post-M&A integration, and 3) exploration of why and how. The applied technique worked very well with business managers, enabling them to focus on the topic and explore their past experiences in a logical manner within the agreed interview timeframe (45-60 minutes).

Secondly, a combination of the concept of 'structured data displays' and the mapping technique was applied in this research to systematically analyse the qualitative data and identify potential causal links. The interview data from the open-ended questions are rich and informative but their analysis may be subject to bias due to interpretations made by a researcher. To mitigate the potential bias and enhance trustworthiness of the analysis results, the concept of 'structured data displays' proposed by Lillis (1999) was applied. This is a technique to systematically reduce the vast amount of rich qualitative data (i.e. interview transcriptions) so that one can analyse the data step by step by providing an auditable trail. Systematically integrated data were then visualised by applying a mapping technique — the way to simplify complex ideas, highlight critical aspects and

reveal causal relationships (Huff and Jenkins, 2002). The combined data analysis method enabled the author to prioritise variables for in-depth investigation and to systematically identify an underlying causal mechanism of the phenomenon.

Finally, the quantitative research data were collected through social media (mainly LinkedIn), which was the first case at a doctoral research community – at least it was in Cranfield School of Management. In the quantitative study, it was vital to identify large pools of target business managers matching the research purpose, which was the hardest challenge in this study. In search of potential data sources suited for this study, social media such as LinkedIn were identified. LinkedIn is one of the largest professional networking sites with 120 million registered members worldwide (as of August 4, 2011). However, a recent study investigating the use of social media in academic research workflows revealed that social networking sites (e.g. LinkedIn) are used mainly for identifying research opportunities and sharing research findings but not for data collection (Nicholas and Rowlands, 2011). Since there was no guideline in the literature for data collection methods using social media, everything had to be developed from scratch. Particular challenges, administration processes and tactics (e.g. monitor group discussions regularly, update messages constantly with different discussion titles... etc.) were documented in detail (see **Chapter-4, IV.3. Data Collection Method**). Considering the fact that many researchers, especially doctoral students, struggle to collect data from business managers, this section of the thesis would contribute to most researchers who apply a questionnaire survey method in the business management field.

### **3. Practical Contribution**

As stated at the beginning of this chapter, key findings from each research project are expected to contribute to business practice by providing suggestions to mitigate the negative impacts of post-M&A integration and thus improve organisational learning and business performance for the future. The end product of the literature review provides some valuable implications in a 'business as usual' situation. For instance, the customer relationship variables in the literature-based conceptual model can be used to develop a scorecard monitoring relationship strength with important customers. Once customer relationship issues are identified, managers can take actions by focusing on improving some of the supplier controllable variables, which would certainly lead to improvement in

the overall customer relationship. In the case of requiring a pin-point action, managers can refer to the literature-based causal map and single out the most significant customer relationship variable(s) that affects the particular relationship quality variable at issue.

The empirical research was initiated by a simple question: What are the key variables that (negatively) influence customer reactions during the post-M&A integration period and why/how? Here is a high-level summary of the key findings from the research projects, which would provide an answer to the question:

- Post-M&A integration actions (namely integration of operations, IT systems and salesforce) trigger customer relationship issues.
- Large-scale operational integration as well as incomplete IT system integration leads to perceived deterioration in service performance, which is the decisive predictor for behavioural customer loyalty.
- Post-M&A organisational restructuring, particularly salesforce integration, creates organisational issues such as employees' internally focused attitude, which result in perceived declines in customer orientation and account management quality.
- Perceived declines in customer orientation and account management quality result in decreased behavioural customer loyalty.
- When service performance deteriorates, customers may switch suppliers even if account management quality is improved.
- Complete marketing integration leads to perceived enhancement in a product / service portfolio that directly contributes to an increase in behavioural customer loyalty.
- Customers having long-term relationships with merging parties tend to negatively perceive changes in customer orientation and account management quality, and are more likely to accept offers from merging parties' competitors.
- The overall integration actions, especially in a complex merger case, generate an unstable business environment that enhances competitive attacks, which results in customer losses.

Although the research suggests that deterioration in service performance is the decisive predictor for decreased behavioural customer loyalty, it might be inevitable in many cases during the post-M&A integration period. Some customers may immediately

switch to other providers, while others may accept the deterioration but give an opportunity for improvement. In order to mitigate the risk of losing customers, suggestions for managers involved in post-M&A integration activities are provided, among other things:

- (1) Pay extra attention to the feasibility of an operational transition plan and its execution, particularly in terms of its impact on service performance. — This suggestion may sound common sense but the case study in this research has emphasised the practical importance of such actions. The organisation launched a dedicated integration programme including operational transitions after months of preparation. However, in the post-integration review, the management revealed that the integration was more complex than they had initially considered and even more that their planned integration strategy was theoretically based but operationally flawed. This suggests the importance of operationally grounded planning and execution of any operational transition.
- (2) Complete IT system integration prior to operational transitions in order to secure operational visibilities. — It became apparent during the research that incomplete IT system integration results in poor operational visibility that leads to (perceived) service performance deteriorations in most logistics merger cases. Hence, one of the inferred remedies for this problem is to prioritise IT system integration prior to any physical operations integration.
- (3) Assign dedicated account management teams to handle all the issues especially for important long-term-relationship customers of both merging firms. — This may not necessarily be easy to implement since many account managers are themselves anxious and confused following a merger and, for the best performers, possibly subject to headhunting offers from competitors. However, it would indeed help reassure customers. The qualitative data provided evidence that customers stay or even increase business with merging parties if supplier KAMs can demonstrate their continued commitment to their customers (see **Chapter-3, X.3.3) F**).
- (4) In cases where service performance deteriorates, take immediate operational actions focusing resources on its recovery rather than putting further pressure on the salesforce. — The management may need to consider the over-riding effect of

service performance on customer loyalty, at least in the logistics industry. Customers are unlikely to accept even a week of operational disruptions, where salespeople have limited influence on the situation. For instance, merging parties with service performance problems may allocate more sales resources trying to recover the situation, but the quantitative data implied that the efforts do not bear fruit.

- (5) Minimise internal radical changes in order to mitigate employees' internally focused attitude, which can diffuse within the entire organisation. — The internally focused attitude, including organisational politics, can be one of the worst side effects of M&A. The qualitative data highlighted that if it is not properly managed, customers would lose confidence in the business relationships and, in the worst case, switch to other service providers.
- (6) Minimise changes for customer-facing functions considering the fact that customers are cautious about the integration effects. — It was found that customers who experienced limited changes perceived post-M&A integration relatively positively, whilst those who experienced many changes perceived it very negatively. In most cases, however, customers claimed that their key contact persons were changed or fired and their know-how was lost, which also implies the importance of the suggested action (3) above.
- (7) Keep an eye on and be prepared for enhanced attacks from competitors, i.e. they will seek bad news and aggressively approach customers with attractive propositions. — This study highlighted that competitors take their rival's merger integration as an opportunity to acquire customers, in some cases by boosting customers' fear of operational disruptions even with false information. Furthermore, it is important to note that once the business (particularly from MNC's) is lost, it would take at least two to three years to win it back due to its common contract period.

At the time when this section of the thesis was being written up, one of the largest mergers in the logistics industry was announced – “*UPS<sup>1</sup> buys TNT Express<sup>2</sup> for €5bn*” (Transport Intelligence, 19<sup>th</sup> March 2012). Their joint press release indicated that they will develop a plan to integrate their operational networks and customer relationships without sacrificing their service quality. But in reality, considering the size of the deal, their operational overlap in Europe and the potential complexity of their integration, they might possibly fall into the similar situation the case-study organisation faced during its post-M&A integration period. The CEO of Deutsche Post DHL stated “*The takeover of TNT Express by UPS creates an opportunity for DHL to pick up dissatisfied customers*” (Financial Times, 24<sup>th</sup> May 2012). However, if managers developing/executing their integration activities are to follow the learning and suggestions in this thesis, they may be able to mitigate the risk of losing customers and thus deliver expected business performance.

#### **4. Contribution Summary**

Key contributions to knowledge, methodology and practice delivered by this research are summarised in the table below (**Ch-1 Table 3**):

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<sup>1</sup> United Parcel Service (UPS) is a global leader in logistics ([www.ups.com](http://www.ups.com)).

<sup>2</sup> TNT Express is one of the largest courier companies in the world ([www.tnt.com](http://www.tnt.com)).

Domains of Contribution	Extent of Contribution		
	Confirmed	Developed	Brand New
Knowledge	Integrated the knowledge in the customer relationship management field, both from customers' and suppliers' viewpoints, under 'business as usual' conditions.	<ul style="list-style-type: none"> <li>▪ Increased our practical understanding of post-M&amp;A integration effects by investigating integration actions by key business function and their impacts from a customer relationship management perspective.</li> <li>▪ Introduced new constructs, i.e. complexity of merger / integration profile and depth of pre-merger relationships, which contribute by providing a broader picture of the post-M&amp;A integration effects on customer-supplier relationships.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Advanced our understanding of customer's reactions to post-M&amp;A integration and their impacts on business performance by identifying a mechanism through which those reactions arise, particularly within the context of the logistics industry. Furthermore, the M&amp;A impact model helps to connect two emerging research streams in the M&amp;A literature.</li> <li>▪ Made an initial attempt to empirically investigate competitive responses to post-M&amp;A integration, which helps to connect the literature between M&amp;A and competitive strategy.</li> </ul>
Methodology	Applied a combination of structured data displays and mapping technique, which enabled the researcher to systematically analyse the qualitative data and identify potential causal links.	<ul style="list-style-type: none"> <li>▪ Adjusted application of the Q-sorting technique for interviews with business managers, which enabled participants to focus on the topic and explore their past experiences in a logical manner within the agreed interview timeframe.</li> <li>▪ Newly developed a survey data collection technique through social media, which enabled the researcher to identify and approach large pools of target business managers.</li> </ul>	n/a
Practice	<p>Identified the following chain effects during the post-M&amp;A integration period in the logistics industry:</p> <ul style="list-style-type: none"> <li>▪ Salesforce integration enhances employees' internally focused attitude that damages the level of customer orientation and account management quality, which results in decreased customer loyalty.</li> <li>▪ Complete marketing integration leads to perceived enhancement of the product/service portfolio which positively influences customer loyalty.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Incomplete IT system integration leads to perceived deterioration in service performance, which is the decisive predictor for customer loyalty.</li> <li>▪ Overall integration effects drive intense competitive attacks that result in customer losses.</li> </ul>	<p>Identified the following issues during the post-M&amp;A integration period in the logistics industry:</p> <ul style="list-style-type: none"> <li>▪ When service performance deteriorates, customers may switch suppliers regardless of the level of customer orientation and account management quality.</li> <li>▪ Long-term-relationship customers negatively perceive changes caused by the integration and are more likely to accept offers from merging parties' competitors.</li> </ul>

**Ch-1 Table 3: Overall Contribution Matrix**

## **5. Limitations and Future Research**

This research is not without limitations, which should be acknowledged, together with areas for future research.

Firstly, this research has deliberately taken a customer perspective drawn from the marketing literature. However, it is recognised that there are many other perspectives on the subject of M&A, such as strategy, finance/accounting and organisational behaviour, which may help to explain post-M&A business performance issues (Angwin, 2007). For instance, the strategy school primarily focuses on issues related to value creation and synergy realisation (e.g. Larsson and Finkelstein, 1999; Schweiger and Very, 2003), whilst the finance/accounting school is mainly concerned about the methods of payment and performance measures (e.g. King et al., 2004; Sirower, 1997). The organisational behaviour school sheds light on people, leadership and cultural issues, linking these with post-M&A performance (e.g. Datta, 1991; Teerikangas and Very, 2006). Compared to the well-established approaches above, the customer perspective with insight into customers' purchasing decisions has been largely absent from the M&A literature (Anderson et al., 2001), but was expected to provide potentially novel explanations of post-M&A business performance.

Secondly, there are also some potential limitations in the literature review itself. Despite the utmost care taken at every stage of the systematic review procedure, there is still the possibility of missing key papers that discuss different aspects of customer relationship management with different implications. Furthermore, some variables from different research settings were merged into one or omitted when building the literature-based conceptual model, which might cause misinterpretation of the interrelationships between the variables. However, this may not cause a serious problem because the objective was to build a knowledge foundation of customer-supplier relationships and the simplified version of the model was endorsed by practical business managers (interviewees) in the empirical study.

Thirdly, in common with many M&A studies (e.g. Cording et al., 2008; Homburg and Bucerius, 2005; Zollo and Meier, 2008), the data collection methods of the empirical studies relied on the interview/survey participants' retrospective memory of up to six

years. The limitation is acknowledged but it may not seriously damage the credibility of the research data for the following reasons. The respondents are managers/directors who are expected to be intelligent enough to properly recall events. Furthermore, M&As are major corporate events, thus things are expected to be recalled more accurately and completely (Huber and Power, 1985, cited in Schoenberg, 2006). These points were supported in the study in that none of the interviewees expressed difficulties in recalling the events of up to six years ago, while some interviewees (customers) provided lively comments, for instance: “*increase of the rates by 180%*” and “*on-time performance went down to 92% or below*”.

Fourthly, the findings in this research were based on a single case study with 40 interview participants and a survey with 139 respondents, focusing on selected merger cases in the logistics industry. The small sample size might have resulted in the reporting of false negative findings, considering the statistical suggestion that the smaller the number of samples, the greater the risk for false negatives (Hanson, 2011). Further, the indicative yet extremely low survey response rate might imply the existence of non-response bias in the data set. Therefore, the generalizability of the findings may be limited. In particular, caution should be exercised when extending the new findings, for instance, the over-riding influence of service performance on behavioural customer loyalty over other customer relationship variables. It is hoped that future research will collect and analyse data from cross-industry merger cases with much larger sample sizes and higher response rates in order to mitigate the potential false negative and non-response bias issues, thus enabling the generalizability of the findings of this research to be established. In order to collect large samples from business managers, future researchers can possibly apply the survey data collection technique using social media developed in this study.

Fifthly, the measurement of post-M&A integration actions is an issue raised by some of the unexpected contradictory findings between the qualitative study (open-ended interviews in the case study) and the quantitative study (the survey of selected merger cases). The issue was identified when measuring the impact of operational integration on service performance as well as that of salesforce integration on customer orientation and account management quality. The qualitative study suggested strong negative impacts for both but the quantitative study rejected the correlations. The examination of

the raw survey data (see **Chapter-4, VII.2. Reflections on the Data Analysis**) implied that the negative impacts were certainly there, however they were not driven by the specific measure used in the quantitative study, i.e. the extent of integration. To remedy this, future quantitative studies may need to introduce more fully specified integration metrics, which could include, for instance, ‘speed of integration’ (Angwin, 2004b; Homburg and Bucerius, 2006) and ‘acquisition experience’ (Cording et al., 2008) alongside the ‘extent of integration’.

Sixthly, some of the key customer relationship variables identified in the qualitative study were discarded when conducting the quantitative study, mainly due to measurement and operationalization issues. These were employee satisfaction, organisational culture and psychological contract. These variables may influence the level of account management quality and customer loyalty during the post-M&A integration phase, and future research is expected to develop suitable measures and operationalization of these in a survey setting.

Finally, this research made an initial attempt to empirically investigate competitor responses to post-M&A integration. However, this was done through customers’ perceptions about competitors’ moves rather than direct inputs from them, due to the difficulty of directly approaching competitors in this research setting. Future research will hopefully overcome the limitation by developing dedicated measures drawn from the competitive response literature (e.g. Chen and Miller, 1994).

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## Chapter 2

### **Project-1: Systematic Literature Review**

### **Customer Relationship Management, Customer Loyalty and Company Performance**

Panel Chair: Prof. Mark Jenkins

Lead Supervisor: Dr. Richard Schoenberg

Panel Member: Dr. Emma Parry, The late Dr. Joe Jaina

Conducted between September 2007 and October 2008

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## ABSTRACT

The aim of this literature review was to build a knowledge foundation of customer-supplier relationships under ‘business as usual’ conditions. Since there have been very few empirical studies to date that investigate the impact of M&A on customer-supplier relationships, it would be important to know what was already known in the customer relationship management field and what methods had proved to be valid and reliable.

Based on a defined systematic review protocol, 50 papers were selected from ten years of empirical studies, from which key variables and interrelationships were identified. Those were then synthesized into a literature-based conceptual model that indicates the factors that affect a customer’s perception/reaction (customer’s view) and the elements of customer relationship management activities that impact on winning and retaining business (supplier’s view) in a business-to-business (B2B) setting. Put another way, the model indicates the link between customer relationship management activities, customer loyalty and company performance, under ‘business as usual’ conditions. This review contributes to the advancement of the customer relationship management literature by synthesizing fragmented knowledge into an overall conceptual model, which includes both customers’ and suppliers’ perspectives. In addition, managerial implications as well as limitations are also presented.

## I. INTRODUCTION

### 1. Aim of the Review

The aim of the systematic review (SR) was to build a knowledge foundation of customer-supplier relationships focusing on the factors that affect a customer's perceptions and reactions (customer's view) and elements of customer relationship management activities that impact on winning and retaining businesses (supplier's view) in 'business as usual' conditions. Since there have been very few empirical studies to date that investigate the impact of M&A on customer-supplier relationships, it would be important to know what was already known in the customer relationship management field and what methods had proved to be valid and reliable.

### 2. Background and Overall Research Problem

The research was hosted by an organisation that carried out a series of major acquisitions that underwent full integration between 2003 and 2005. During the integration phase, the organisation ran into a tough business situation that can be explained as ' $1 + 1 < 2$ ' (opposite to the synergy equation). This drove the author to begin the research with a simple question — What are the key factors that affect post-M&A business performance? Conventional wisdom suggests that it can be customer reactions that affect post-M&A business performance. But a question still remains — What are the key variables that affect customer reactions (i.e. buying decision) during the post-M&A integration? In search of the possible answers to the questions above, convincing studies were hardly found in the M&A literature. Academics provide good implications with sound empirical evidence; however, they tend to focus on company internal issues, such as integration process, cultural conflict and synergy realization. Therefore, even the frequently cited comprehensive studies (e.g. Haspeslagh and Jemison, 1991; Larsson and Finkelstein, 1999) cannot thoroughly answer the enquiry. Practitioners, on the other hand, discuss both company internal issues and external issues, such as lost customers and competitive attacks (e.g. Clemente and Greenspan, 1997; Sikora, 2005); however, most of their arguments are based on anecdotal evidence, thus they cannot demonstrate exactly what factors are critical. The business issue

discussed here is not uncommon but the M&A literature cannot provide sufficient solutions for it.

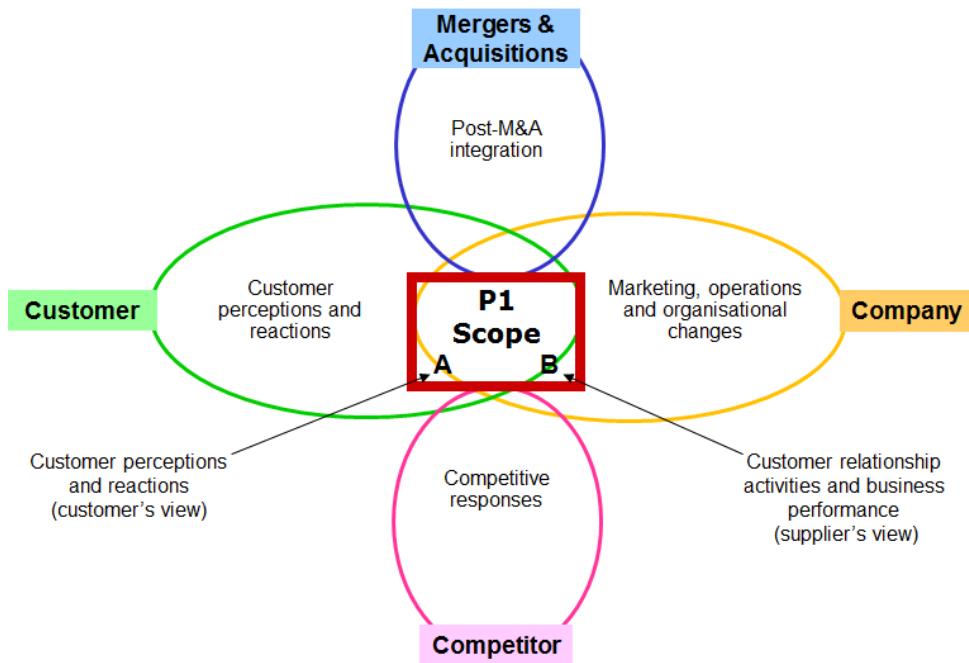
### **3. Research Field**

Based on the overall research problem mentioned above, an initial literature search was conducted to assess the breadth of the literature. The following four sets of search words were explored through ProQuest and EBSCO, with and without M&A context: 1) Company changes, competitive attacks and customer relationship, 2) Company changes and customer perceptions/reactions, 3) Company changes and competitive attacks, and 4) Competitive attacks and customer perceptions/reactions. The search brought a very disappointing result. As shown in the table below (**Ch-2 Table 1**), out of over 7,000 papers extracted, only 25 relevant papers were identified, of which only three were within the M&A context.

Initial search words	No. of papers identified (ProQuest + EBSCO)					
	Overall	Title check	Abstract check		Full-paper check	
			ALL	M&A related	ALL	M&A related
1 Company changes, competitive attacks and customer relationship	2,937	125	13	4	7	2
2 Company changes and customer perceptions/reactions	3,087	177	26	4	12	0
3 Company changes and competitive attacks	1,211	96	16	7	5	1
4 Competitive attacks and customer perceptions/reactions	537	22	3	1	1	0
	7,772	420	58	16	25	3

**Ch-2 Table 1: Initial Paper Search**

The first review of the M&A related literature in the scoping study followed by the initial paper search above has clearly indicated that there are a very limited number of papers that investigate customer perceptions/reactions (and competitive attacks) within the M&A context. Therefore, following the advice from the research panel, it was decided to focus on the literature without M&A context and build a knowledge foundation of customer-supplier relationships — A) Customer perceptions and reactions (customer's view) and B) Customer relationship management activities and business performance (supplier's view). Utilizing the suggested “Mapping Your Field” framework (Jenkins, 2003), the research field is clarified as follows (**Ch-2 Figure 1**).



**Ch-2 Figure 1: Research Field Mapping (Project-1)**

## II. METHODOLOGY — SYSTEMATIC REVIEW PROTOCOL

### 1. Systematic Review Question

As discussed in the previous section, it was decided to explore the literature for customer perceptions/reactions and customer relationship activities without M&A context, which generally means ‘Customer Relationship Management’ (CRM). Furthermore, considering the relevance to the planned empirical research project (Project-2) and its host organisation that is engaged in business-to-business (B2B) services, the study field was defined as ‘customer relationship management and service management in a business-to-business setting’. Accordingly, research questions to the literature in this study were defined as follows:

- A) Customer's view — What are the key factors that affect a customer's perceptions (e.g. satisfaction) and reactions (e.g. increase/decrease business with a supplier) in a business-to-business setting?
- B) Supplier's view — What are the key elements of customer relationship management activities that impact on a firm's business performance (e.g. winning and retaining businesses from its customers) in a business-to-business setting?

## **2. Search Strategy**

To systematically identify relevant knowledge from the literature, keywords, search strings and search engines were defined for electronically available journals. Other sources of information were also defined.

### **1) Keywords**

The following keywords were selected from frequently used words in the literature and their synonyms from [www.thesaurus.com](http://www.thesaurus.com):

Keywords	Explanation
Customer's view	B2B, business-to-business, industrial
	Customer, client
	Perceive-perception, behave-behaviour, attitude, attention, recognize-recognition, cognition-cognitive, interpret-interpretation, sense-sensing
	Switching-cost, trust, commit-commitment, satisfy-satisfaction, value, service quality
	Respond-response, react-reaction
	Switch, recommend-recommendation, word-of-mouth, loyal-loyalty
Supplier's view	B2B, business-to-business, industrial
	Customer, client
	Relationship, relation, interaction, partnership
	Trust, commit-commitment, satisfy-satisfaction, loyal-loyalty, service quality
	Lose-lost-loss, defect-defection, attrition, churn, churn/attrition rate, lapse-lapsed, retain-retention, maintain-maintenance, leave, switch, change
	Cross-sell/selling, cross-buy/buying, one-stop-shopping, key supplier, global account, key account, share-of-wallet

\* Heskett et al., 1994, Kamakura et al., 2002, Lam et al., 2004, Mentzer et al., 1997, Ngobo, 2004, Parasuraman et al., 1985, Rauyruen and Miller, 2007

\*\* Birkinshaw et al., 2001, Holmlund and Strandvik, 1999, Kamakura et al., 2002, Ngobo, 2004, Ulaga and Eggert, 2006

**Ch-2 Table 2: Applied Keywords**

### **2) Search Strings**

Based on the systematic review questions and the keywords, the following two sets of search strings were formed. Since major search engines allow only a limited number of words in one search (e.g. maximum of 20 words at ProQuest), the most important and specific words were selected from the keywords.

#	Search strings	SR questions
A	(b2b OR 'business-to-business' OR industrial) AND (customer OR client) AND (perception OR perceiv* OR behav* OR attitude OR respon* OR react* OR cogniti* OR switch* OR trust OR commit* OR satisf* OR value OR 'service quality' OR recommend* OR 'word-of-mouth' OR loyal*)	What are the key factors that affect customer's perceptions and reactions in a B2B setting?

B	(b2b OR 'business-to-business' OR industrial) AND (customer OR client) AND (relation* OR commit* OR satisf* OR loyal* OR loss OR lost OR attrition OR churn OR retain OR retention OR cross-selling OR cross-buying OR one-stop-shopping OR key supplier OR global account OR key account OR share-of-wallet)	What are the key elements of customer relationship management activities that impact on a firm's business performance in a B2B setting?
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**Ch-2 Table 3: Search Strings**

### 3) Search Engines

Here is the list of key search engines/databases for business and management (Cranfield university library: <http://www.cranfieldlibrary.cranfield.ac.uk/>) with relevant information based on a quick assessment of each database using a basic search string:

Search term used	(b2b OR business-to-business OR industrial) AND (customer OR client) AND (satisf* OR loyal*)			
Database	No. of hits (Title)	No. of hits (Abstract)	No. of hits (All text)	Remarks
ABI/INFORM (ProQuest)	29	1,810	84,674	Can be used as the main search engines.
Business Source Premier (EBSCO)	36	765	112,135	
CSA Illumina (former PsycINFO)	0	49	2,691	Can be used as supplemental search engines when applicable.
Google Scholar	14	n/a	72,200	
Emerald	2	26	8,613	
ScienceDirect	2	40	4,540	
Scopus	5	88	961	Can be neglected due to the limited number of relevant information sources.
Blackwell Synergy	0	8	8,027	
IngentaConnect	0	11	n/a	
Oxford Reference Online	0	n/a	23	
Zetoc	n/a	n/a	n/a	

**Ch-2 Table 4: Key Search Engines**

Furthermore, applicability of the search strings was tested using the selected search engines. According to Dr. David Denyer, systematic review specialist at Cranfield School of Management, the reasonable/manageable number of hits is up to 1,500. As shown here, both search strings have been proved to be applicable.

Search String	Search criteria	Academic journal, 1998 - 2008 (10 years)
	No. hits (abstract) on Feb-2008	
	ProQuest	EBSCO
A	873	1,190
B	735	634

**Ch-2 Table 5: Search Strings Test**

#### **4) Other Sources of Information**

Finally, other sources of information were considered as follows:

Information source	Decision and rational
Journals not cited in the databases	Those journals identified by cross-referencing exercises or recommended by the research panel are included. Otherwise, it was decided not to go any further because their credibility would be doubtful if they cannot be found through the process.
Conference papers	In general, those papers can be included if related to my SR questions. Google Scholar can sometimes find relevant conference/unpublished papers from wide range of information sources. However, the main sources for that kind of papers should be selected articles (cross referencing) and recommendation from the research panel.
Working papers or unpublished papers	
Books	A collection of academic articles, such as Elsevier's 'Advances in Mergers and Acquisitions', can be identified through cross-referencing exercises and must be included. A complete book can be included only if it is directly related to my SR questions and cited by the selected articles or recommended by the research panel.
Reports from relevant institutions	In general, those reports are excluded due to expected lack of methodological rigor. Only industry related reports, such as 'Transport Intelligence', can be included just as a reference.
Documents on the Internet	There are enormous numbers of reports and documents available on the Internet, however, it was decided not to include them as official information sources because it is hard to assess and justify their methodological quality.

**Ch-2 Table 6: Other Sources of Information**

#### **3. Selection Criteria**

All the journals, books and papers identified through the search method above were assessed by the following check points for their titles and abstracts:

Check Point	Decision (Inclusion/Exclusion) and Rational
Type of literature	Scholarly journals, books and papers identified through the search method above are included considering expected high level of methodological rigor, while the ones with anecdotal or commercial arguments (e.g. practitioner's journals) are excluded.
Type of study	Empirical studies are targeted so that their findings can be extracted in a systematic way with comparison. Conceptual/theoretical papers can be included only if they provide model(s) or framework(s).

Applied method		Papers with quantitative method are preferred for the comparison purpose, but that of qualitative method should not be excluded as long as they provide clear and comparable findings.
Publication year		The business environment, particularly market (customer) reactions, has been changing rapidly, hence recent studies are preferred. Papers published after 1998 (10 years) are included depending on size of the identified literature.
Written language		Only English papers are included without exception.
Research Sample/Content	Sector	Researches for the private sector to be focused and that for the public sector and non-profit organizations can be excluded.
	Industry	All industry samples to be included with preference to the service industry.
	Business model	Samples from a B2B setting to be selected (B2C, C2B and C2C should be excluded unless a paper provides a universal model).
	Geographic scope	Samples from all regions/countries to be included (Europe preferred).
	Organization type	Samples of Multinationals preferred but SMEs cannot be excluded.

**Ch-2 Table 7: Selection Criteria**

Once the papers were shortlisted by the title/abstract assessment above, the next step was a full paper screening of their empirical study using the following criteria:

**SR-Q A:** Decisive (important) factors for business customers in making buying decisions — perceptual / behavioural aspects.

**SR-Q B:** Correlation between customer relationship management activities and a firm's business performance.

#### **4. Quality Assessment**

Quality of the selected journals, books and papers were assessed by the following framework (applicable mainly for empirical papers):

No.	Quality Appraisal Criteria	Quality Level/Score			
		<b>1 = Low</b>	<b>2 = Medium</b>	<b>3 = High</b>	Not Applicable
1	<b>Journal Quality</b> (Grading by Cranfield SoM)	1* = National	2* = Lower international	3* = Top international, 4* = World leading	Books, unpublished papers...
2	<b>Theory</b> (Proposition and Theory Building)	Not clear research objectives, limited review of literature and weak theory building with less realistic propositions.	Clear research objectives plus acceptable level of literature review and theory building with reasonable/ realistic propositions.	Robust research objectives, excellent review of literature and compelling theory building with sound propositions.	n/a
3	<b>Methodology</b> (Sampling and Data Collection Method)	Less satisfactory research design with inadequate sample selection or inappropriate data collection methods.	Satisfactory research design with adequate sample selection and appropriate data collection methods to some extent.	Excellent research design with adequate/convincing sample selection and appropriate data collection methods.	n/a

4	<b>Analysis</b> (Data Analysis, Interpretation and Conclusion)	Less reliable data analysis — invalid method or illogical lead/chain from data analysis (e.g. statistics), interpretation to conclusion.	Reasonably reliable data analysis — valid method and acceptable lead/chain from data analysis (e.g. statistics), interpretation to conclusion.	Highly reliable data analysis — valid method and logical lead/chain from data analysis (e.g. statistics), interpretation to conclusion.	n/a
5	<b>Contribution</b> (Practical Knowledge Contribution)	Findings are not clear or not meaningful. Limited contribution to management practices.	Clear findings but not significantly contributing to management practices.	Clear and meaningful findings that significantly contribute to management practices.	n/a

**Ch-2 Table 8: Quality Assessment Framework**

### **1) Quality Screening**

Papers with the average quality score (overall score divided by five) of two or higher were selected as the final knowledge base.

### **2) Cross-Referencing**

Journals not cited in the databases, conference papers, working papers/unpublished papers and books cannot be systematically identified through the search strings/engines above. Hence, cross-referencing was conducted from the selected papers.

## **5. Data Extraction**

Reviewed papers were summarised in the defined template. Here is a sample of the template with actual data:

Title	Relationship quality as a predictor of B2B customer loyalty	ID No. and SR-Q	73 - a
		Relevance (H–M–L)	H
Abstract	This study aims to provide a picture of how relationship quality can influence customer loyalty in the business-to-business (B2B) context. Building on prior research, we propose relationship quality as a higher construct comprising trust, commitment, satisfaction and service quality. We believe that these dimensions of relationship quality can reasonably explain the influence of overall relationship quality on customer loyalty. In addition, this study provides more insightful explanations of the influence of relationship quality on customer loyalty through two levels of relationship quality: relationship quality with employees of the supplier and relationship quality with the supplier itself as a whole. Aiming to fully explain the concept of customer loyalty, we follow the composite loyalty approach providing both behavioral aspects (purchase intentions) and attitudinal loyalty.		
Author	Rauyruen and Miller	Institution	University of Technology, Sydney, AU
Lit. Type	Journal (empirical study)	Publication Date	2007
Journal / Publisher	Journal of Business Research	Research Field	Marketing (Loyalty, Relationship and Service)
Industry	Customer: Not specified Supplier: Logistics (service)	Biz Model	B2B
Geo. Scope	Australia	Org. Type	Customer: SMEs Supplier: MNCs + SMEs
# Samples	306 out of 7,000 potential targets (response rate: 4%) — Customers as respondents		

Aim & Applied Method	Questionnaire survey (on-line and paper) to investigate correlations between relationship quality and customer loyalty in a B2B setting
Outcome / Performance Measures	Customer loyalty: <ul style="list-style-type: none"> <li>○ Behavioural loyalty — Repurchase intention or possible share-of-wallet</li> <li>○ Attitudinal loyalty — Psychological attachments, including positive word-of-mouth</li> </ul>
Key Variables	Relationship quality: <ul style="list-style-type: none"> <li>○ Trust in employees &amp; supplier</li> <li>○ Calculative &amp; affective commitment to employees &amp; supplier</li> <li>○ Overall satisfaction</li> <li>○ Perceived overall service quality</li> </ul>
Design & Operation	<ul style="list-style-type: none"> <li>▪ Measurement: Loyalty type from the loyalty literature, loyalty determinants from relationship and service marketing literature.</li> <li>▪ Sample selection: To investigate customer perceptions, the authors targeted the population of SMEs (owners &amp; mgrs) in AU, who most likely use the suppliers' services. No data about the suppliers are targeted / used.</li> </ul>
Data Analysis	Hypothesis testing by structural equation modelling AMOS 5 with maximum likelihood estimation method, and Confirmatory Factor Analysis (CFA)
Key Findings	<ul style="list-style-type: none"> <li>▪ Out of 16 potential correlations, only 6 paths are empirically demonstrated: <ul style="list-style-type: none"> <li>○ Trust in supplier positively relates to attitudinal loyalty</li> <li>○ Affective commitment to supplier positively relates to attitudinal loyalty</li> <li>○ Overall satisfaction positively relates to both attitudinal &amp; behavioural loyalty</li> <li>○ Perceived overall service quality positively relates to both attitudinal &amp; behavioural loyalty</li> </ul> </li> <li>▪ Overall satisfaction and perceived service quality influence business customers' (re)purchase intentions, while trust and commitment do not</li> <li>▪ Employee level relationship quality has no significant impact on both attitudinal and behavioural loyalty</li> <li>▪ Calculative commitment has no significant impact on both attitudinal and behavioural loyalty</li> </ul>
Time Dim.	Not specified
Quality Score	No.1    2    No.2    3    No.3    3    No.4    2    No.5    2.5    Avg.    2.5
Remarks	<ul style="list-style-type: none"> <li>▪ As stated, the loyalty mechanism of MNCs may be different from that of SMEs.</li> <li>▪ It is suggested to investigate customer relationship, or contact point, in detail.</li> </ul>

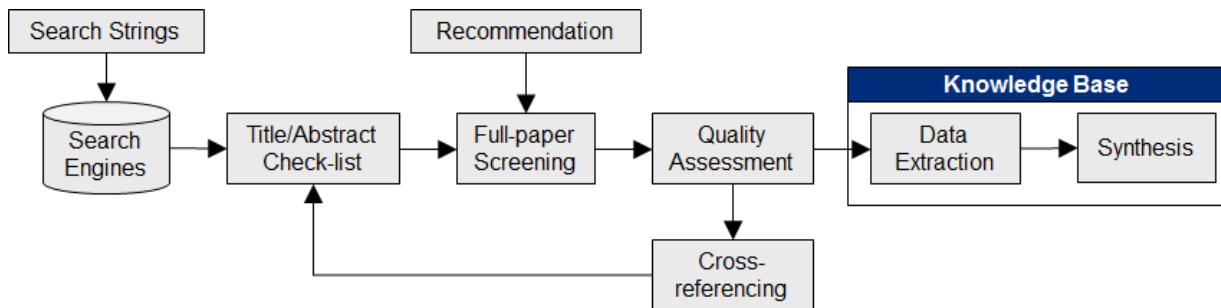
**Ch-2 Table 9: Data Extraction Template**

## **6. Synthesis**

Once the data extraction from all the relevant papers is completed, the final stage is to integrate them into one structured review paper and then build a literature-based causal map applying a mapping technique (Huff and Jenkins, 2002) as well as a conceptual model. The model is designed to indicate factors that affect a customer's perception and reaction (customer's view) and elements of customer relationship management activities that impact on winning and retaining businesses (supplier's view) in a B2B setting.

## 7. Overall Procedure

Here is the overall procedure to systematically identify relevant literature and build a solid knowledge base during Project-1 (**Ch-2 Figure 2**):



**Ch-2 Figure 2: Systematic Review Procedure**

## III. DESCRIPTIVE ANALYSIS (LITERATURE PROFILE)

A brief profile of the literature reviewed in this study is described in this section. As shown in the table below (**Ch-2 Table 10**), out of over 3,000 papers extracted from ProQuest and EBSCO, 58 highly relevant papers were identified through the title, abstract and full paper check process. Finally 50 papers were selected as the knowledge base of the project, applying the quality screening criteria explained above.

SR-Q	No. of Hits			Title Check			Abstract Check			Full-paper Check*					Final Assessment		
	Pro Quest	EBSCO	Total	Pro Quest	EBSCO	Total	No Go	Back -up	Go full paper	H	M+	M	L	ToT	Go	NG	ToT
A	873	1,190	2,063	102	92	194	-	7	94	36	38	8	12	94	31	5	36
B	735	634	1,369	55	54	109	-	15	72	22	28	14	8	72	19	3	22
Total*	1,608	1,824	3,432	157	146	303	37	22	166	58	66	22	20	166	50	8	58

\* Including duplications

Duplications	78
Real total	225

H: Highly relevant to SR-Q

M+: Relevant to SR-Q

M: Somewhat relevant to SR-Q

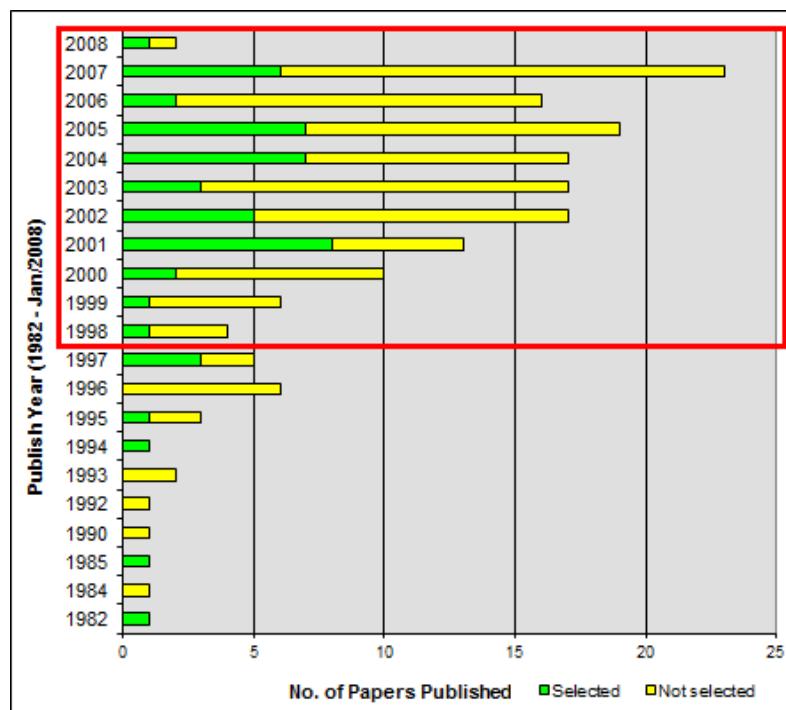
L: Less relevant to SR-Q

Go: Included in findings

NG: Not included

**Ch-2 Table 10: No. of Papers Identified and Reviewed**

The figure below (**Ch-2 Figure 3**) shows the evolution of the study for the selected field — customer relationships in a B2B setting. It covers 166 papers shortlisted through the abstract check, issued between 1998 and January 2008 (except papers identified through cross-referencing). It is clear that the study field has been receiving strong attention from academics recently.



**Ch-2 Figure 3: No. of Papers Investigating B2B Customer Relationships**

From this point, the portfolio of 50 selected papers is described as the knowledge base of the project. As shown in the table below (**Ch-2 Table 11**), the vast majority of papers are from the marketing arena, many of which are world leading journals such as 'Journal of Marketing'. A weighted average grade of the papers, using Cranfield School of Management's (SoM) guidelines (Cranfield School of Management, Feb 2008) is 3.2, which would be reasonably high.

Journal	# papers	SoM grade
Journal of Marketing	9	4
Journal of Business Research	7	2
European Journal of Marketing	4	3
Industrial Marketing Management	4	3
Journal of Personal Selling & Sales Management	4	3
Journal of the academy of marketing science	3	4
Journal of International Marketing	2	3
Journal of Relationship Marketing	2	n/a
Other journals and books	15	various
Total / Weighted average (excl. n/a)	50	3.2

**Ch-2 Table 11: Reviewed Major Journals and SoM Grade**

The majority of the studies are based on samples either from Europe or the USA followed by Asia Pacific (**Ch-2 Table 12**), while half of them target service industries

including the logistics industry (**Ch-2 Table 13**). This nicely fits with the preference mentioned in the literature selection criteria for industry and geographic coverage.

Geographic coverage	# papers
Europe	15
USA	15
Asia Pacific	8
USA + Europe	4
n/a	3
Rest of the World	2
Worldwide	2
USA + AsiaPacific	1
Total	50

Industry	# papers
Logistics	4
Financial services	4
Advertising	3
Business services	3
Information technology/system	3
Consulting	2
Telecommunications	2
Consulting engineering	1
Hotel	1
Public sector	1
Service	1
Sub-total	25
Manufacturing	Industrial manufacturing
	Manufacturing
	Automotive parts
	Electronics manufacturing
	High-end copier
	Sub-total
	14
	Various
	11
	Total
	50

**Ch-2 Table 12: Geographic Coverage**

**Ch-2 Table 13: Industry Coverage**

In terms of sampling, although most papers apply a multiple-firm method, some papers also apply a single firm case study (**Ch-2 Table 14**) that is similar to the planned empirical research method in Project-2. Regarding the organisations, about half of the suppliers are multi-national corporations (MNCs) or large firms but many of the customers are either small/medium enterprises (SMEs) or a combination of SMEs and MNCs (**Ch-2 Table 15**), which does not perfectly fit with the preference mentioned in the literature selection criteria.

Supplier sample	# papers
Multiple firms	38
Single firm	10
n/a	2
Total	50

Supplier org.	# papers
L-firm	23
L-firm + SME	17
SME	3
Gov. agent	1
n/a	6
Total	50

Customer org.	# papers
L-firm + SME	16
SME	7
L-firm	6
Consumer	4
Gov. agent	3
University	1
n/a	13
Total	50

**Ch-2 Table 14: Supplier Samples**

**Ch-2 Table 15: Supplier/Customer Org. Type**

Concerning respondents, the majority of the studies collected data from customers, notably purchasing managers, while some collected from suppliers (mainly sales managers) and others collected from both through dyadic sampling (**Ch-2 Table 16**). Apparently it is not easy to apply the dyadic sampling method, but Homburg and Fürst (2005) claim that one should analyse data from both supplier and customer perspectives to study, for instance, a customer's feeling of fairness.

Respondents profile		# papers
Customers (34)	Purchasing managers	12
	Owners and managers	2
	Distributor	1
	Info Mgt, Product, Purchasing managers	1
	Insurance policy holders	1
	Key contacts	1
	MKT managers	1
	Purchasing, engineering, manufacturing managers	1
	Senior gov. engineers	1
	Senior managers	1
	Users (secretaries)	1
n/a		11
Suppliers (7)	Key Account Mgrs	2
	Sales managers	2
	MKT managers	1
	Quality/OPS managers	1
	n/a	1
Suppliers + Customers (7)	Salespeople/supplier + Key contacts/customer	2
	Key Account Mgrs/supplier + General mgrs/customer	1
	Contact employees, managers and purchasing mgrs	1
	MKT mgrs/supplier + Purchasing mgrs/customer	1
	n/a	2
n/a (2)	n/a	2
Total		50

**Ch-2 Table 16: Respondents Profile**

Regarding the research method, most papers in this field apply a quantitative method (i.e. questionnaire survey) although some combine survey with interview (**Ch-2 Table 17**). Another feature of this research field is that a structural equation modelling has been becoming very popular for quantitative data analysis and hypothesis testing (**Ch-2 Table 18**).

Analysis method	# papers
Structural equation model	34
STD regression model	7
Descriptive statistics	2
Other (incl. n/a)	7
Total	50

**Ch-2 Table 17: Applied Analysis Method**

Type	Method	# papers
Empirical	Questionnaire survey	38
	Semi-structured interview + Questionnaire	3
	Unstructured interview + Questionnaire	2
	Unstructured interview	2
	Structured interview (survey)	1
Theoretical	Unstructured interview	1
	n/a	3
Total		50

**Ch-2 Table 18: Type of Study and Method**

Finally, the selected papers were grouped by the systematic review question (a: customer's view, b: supplier's view) and then sub-grouped by distinctive research field as follows (**Ch-2 Table 19**).

SR-Q	Research field	# papers
a	Relationship quality + Loyalty	12
	Satisfaction + Service quality	6
	Customer-relation (IMP+)	5
	Customer value	3
	Loyalty	3
	Other	2
	Sub-total	31
b	Account management	5
	Loyalty	4
	Chain effects	3
	Satisfaction + Service quality	3
	Other	2
	Customer value	1
	Customer-relation (IMP+)	1
	Sub-total	19
Total		50

**Ch-2 Table 19: Systematic Review Questions and Research Field**

## IV. RESULTS OF THE SYSTEMATIC REVIEW

Since all the papers in this systematic review were identified from outside the author's original research field of M&A, it would be important to document captured knowledge from the literature in this section before moving into argument. Therefore, background information and key findings of the selected papers were summarised followed by brief remarks/criticism, if applicable. This section is divided into two parts based on the systematic review questions — 'Customer perception and reaction' (customer's view) and 'Customer relationship management activities and business performance' (supplier's view).

**Note:** To make it easy for readers to do cross-referencing between key findings, suggested models and a data summary, the ID number of each paper is highlighted in the body text. The data summary can be found in **Appendix A** and **Appendix B**.

### 1. Customer Perception and Reaction (Customer's View)

As shown in the figure above (**Ch-2 Table 19**), the literature in this section was divided into six sub-fields: relationship quality & loyalty, customer satisfaction & service quality, customer relationship (mainly from IMP), customer value, loyalty and other. In addition, there are four papers focusing on the logistics industry or company(s) directly related to the host organisation of this study.

#### 1) *Study of the logistics industry*

The papers in this sub-field mainly discuss service quality, customer satisfaction and loyalty by investigating samples from logistics companies i.e. the research host organisation's rivals.

Through a questionnaire survey of 234 customers in Singapore (or Asia Pacific region), Lam et al. (2004) [ID: 83] argue the following interrelationship of the variables and implications:

- Perceived customer value (quality versus cost) leads to satisfaction,
- Satisfied customers appear to be loyal (repeat purchase and/or recommend),

- Customers are mainly driven by their level of satisfaction for recommendation, but are influenced by both their level of satisfaction and perceived value for repeated purchase,
- Switching costs not only help a supplier to retain its customers but also encourage customers to recommend the supplier to other customers.

Since the study is based on a single company case with low response rate (8%), the results above cannot be simply generalized. However, the supplier in discussion seems to be the research host organisation's rival and the findings are highly relevant to the author's systematic review question and research topics.

There is another study from the Asia Pacific region with a similar scope. Through a survey of 306 customers in Australia, Rauyruen and Miller (2007) [ID: 73] found the following correlations of the variables:

- Trust in supplier positively relates to attitudinal loyalty,
- Affective commitment to supplier positively relates to attitudinal loyalty,
- Overall satisfaction positively relates to both attitudinal and behavioural loyalty,
- Perceived overall service quality positively relates to both attitudinal and behavioural loyalty,
- Overall satisfaction and perceived service quality influence business customers' (re)purchase intentions, while trust and commitment do not,
- Employee level relationship quality has no significant impact on both attitudinal and behavioural loyalty,
- Calculative commitment has no significant impact on both attitudinal and behavioural loyalty.

The study focuses on small to mid-sized customers (SMEs). As stated in the paper, the loyalty mechanism of multinational corporations (MNCs) may be different from that of SMEs. Also, the low response rate (4%) of the survey is an issue. Nevertheless, it is highly relevant to the systematic review question and research topics, especially considering the fact that it covers the research host organisation's rival firms.

There is one more similar study, from the Baltic region. Through a survey of 200 customers, Palaima and Auruskeviciene (2007) [ID: 139] documented the following finding/links of the variables:

- Loyalty and word-of-mouth are perceived as a single construct (loyal customer = positive word-of-mouth),
- Service quality is a strong antecedent for social aspects of relationship, customer confidence (or trust) and loyalty,
- Special treatment affects social relationship that affects both customer confidence (or trust) and commitment,
- Customer confidence (or trust) is a strong antecedent for commitment that has a strong impact on loyalty.

This study is based on customers of a single company; however, it may have some quality issues, such as a limited review of the literature to build its theoretical model, unclear sample selection method and a limited understanding of the industry, all of which lead to unconvincing conclusions, especially from a practitioner's point of view. Apparently the quality of the paper is relatively low but since it targeted the logistics industry, it was decided to keep this as one of the references.

Finally, there is an operational satisfaction study in the United States. Through a survey of 181 users at their universities, Li et al. (2006) [ID: 164] examined the difference in customer satisfaction between FedEx and UPS:

- Key factors customers/users consider when using courier services are: 1) availability, 2) responsiveness, 3) reliability, 4) completeness, and 5) professionalism — adapted from the 10 dimensions of service quality (Parasuraman et al., 1985),
- The study failed to reject all the null hypotheses, which means that there are no significant differences in customer satisfaction between UPS and FedEx, both for incoming and outgoing services,
- The result above might explain the reason why the two companies are equally competing in and dominating the US market.

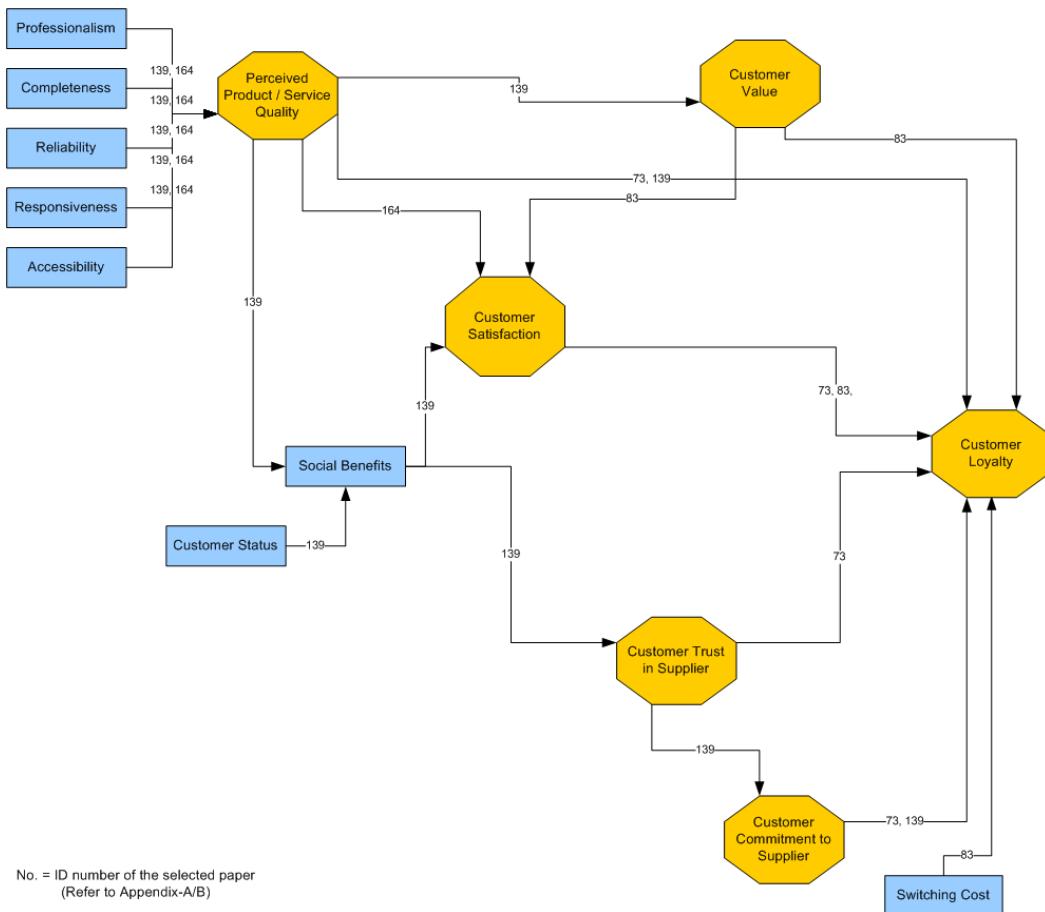
There are some issues with the study. First, they failed to demonstrate their initial hypotheses. Second, as noted in a research limitation, 'price' (or cost) of the service is not included in the study, which may play an important role in a carrier selection. Third, the targeted samples are 'users' rather than 'professional buyers', which may make the study less interesting to business managers. Finally, they applied only a basic statistical technique (t-test) for the data analysis, which is less convincing compared to other

marketing studies. Apparently the quality of the paper is also relatively low but since it targeted the logistics industry, it was decided to keep this as one of the references.

### **Literature-based Causal Map (Logistics Industry)**

Here is a summary of the studies conducted on customer perceptions of logistics companies, which leads to the first causal map. A customer's level of loyalty can be anticipated by the following five key variables: supplier's service quality (Palaima and Auruskeviciene, 2007; Rauyruen and Miller, 2007), received value (Lam et al., 2004), overall satisfaction (Lam et al., 2004; Rauyruen and Miller, 2007), trust in the supplier (Rauyruen and Miller, 2007) and commitment to the supplier (Palaima and Auruskeviciene, 2007; Rauyruen and Miller, 2007). According to these authors, these five key variables are considered not to be independent but interdependent. Soft factors such as trust and commitment are claimed to be as significant as hard factors such as service quality and value, while satisfaction is positioned as an intermediate (soft/hard). Other factors are also highlighted as influential: customer status and social benefits (Palaima and Auruskeviciene, 2007) and switching cost (Lam et al., 2004). Furthermore, the industry-specific dimensions need to be considered when assessing a supplier's service quality (Li et al., 2006). Finally, although Rauyruen and Miller (2007) propose further fractionalization of variables — loyalty (attitudinal and behavioural), commitment (affective and calculative) and commitment/trust (company-level and employee-level) — it was decided not to take these into account after considering the expected complexity of the causal map.

The suggested causal map in this sub-field is visualized in **Ch-2 Figure 4** below — Relationship quality and loyalty are highlighted in 'gold' as key variables/outcomes, while the rest is marked in 'blue' as sub-variables (Note: the number in the map represents the ID number of the respective paper, details of which can be found in **Appendix A** and **Appendix B**):



**Ch-2 Figure 4: Literature-based Causal Map (Logistics Industry)**

## 2) Relationship quality and loyalty

There are several definitions of ‘relationship quality’ but many may agree that it contains product/service quality, customer overall satisfaction, customer trust and customer commitment — overall means of assessing the relationship strength (Caceres and Paparoidamis, 2007; Rauyruen and Miller, 2007; Woo and Ennew, 2005). Concerning loyalty, it is relatively easy to measure attitude (or intention) but it is hard to measure actual behaviour (Caceres and Paparoidamis, 2007). Therefore, as expected, almost all the papers in this sub-field discuss a wide range of variables that finally link to ‘intentional loyalty’.

Caceres and Paparoidamis (2007) [ID: 60] found the following correlations of the variables through a survey of 234 clients from the advertising industry in Europe:

- Technical service quality (what) and functional service quality (how, mediated by “commercial service”) have a direct and positive effect on relationship satisfaction,

- All the elements of relationship quality (satisfaction, trust and commitment) are positively correlated with each other and have a positive impact on attitudinal loyalty,
- Service quality (what/how) is not directly related to loyalty but mediated by satisfaction.

Gounans (2005) [ID: 64] claims the following correlations of the variables through a survey of 127 clients from the consulting (training & recruitment) service industry in Greece:

- Service quality (mainly how & overall) and supplier's bonding activities (mainly social) positively influence customer's trust,
- Customer's trust is positively related to their affective commitment and negatively related to their calculative commitment,
- Customer's affective commitment has a positive impact on their intentional loyalty, while calculative commitment has a negative impact on their intentional loyalty.

In addition to the key findings above, Gounans (2005) argues that 1) service quality dimensions are industry-specific (customized research design required), 2) time dimension as well as lost customers should be taken into consideration, 3) cultural-specific framework to be considered. A criticism of this paper is that it is not very clear why Gounans selected only service quality and bonding as antecedents to trust and commitment.

Johnson et al. (2001) [ID: 68] discuss the following links of the variables through a survey of 844 customers (purchasing managers), not specified but assumed to be from the component manufacturing industry in the USA:

- Customers who perceive equity with the salesperson are more likely to be satisfied with and committed to the salesperson,
- Customers who are satisfied with the salesperson are more likely to be committed to the salesperson,
- Customer's level of commitment to the salesperson is positively related to perceived level of switching costs,
- Customer's level of commitment to the salesperson and perceived level of switching costs are negatively related to their perception of acceptable alternatives,

- Customers who are committed to the salesperson are less likely to consider terminating the current relationships, while customers who have many acceptable alternatives are more likely to consider terminating the current relationships.

This study is based on theoretical models from the employee turnover literature, considering similarities between customer defection and employee defection. The authors focused on individual relationships and no consideration is given to a corporate level relationship. A criticism of this study is that it is not clear why the authors did not consider issues concerning product/service quality (expectation vs. actual) and value (benefits vs. costs) when discussing switching cost and defection intention.

Patterson et al. (1997) [ID: 72] found the following interrelationship of the variables through a survey of 128 customers (senior managers) from the management consulting service industry, not specified but assumed to be in Australia:

- Loyalty (repurchase intentions) is strongly affected by perceived satisfaction,
- Satisfaction is positively influenced by disconfirmation (expectation vs. actual), actual performance and fairness,
- Disconfirmation is positively affected by post-purchase (actual) performance but negatively affected by pre-purchase expectations,
- Disconfirmation has a stronger influence on satisfaction than actual performance,
- Novelty has a positive effect on pre-purchase expectations and a negative effect on perceived actual performance,
- Purchase importance has a positive effect on pre-purchase expectations and perceived actual performance,
- Decision complexity has a positive effect on pre-purchase expectations,
- Uncertainty has a negative effect on pre-purchase expectations and perceived actual performance.

Measurements of expectation/performance in this study are specifically designed for the management consulting service, contracting on a project-to-project basis with high involvement events.

Abdul-Muhmin (2005) [ID: 106] argues the following correlations of the variables through a survey of 282 customers (purchasing managers) from the industrial manufacturing industry in Saudi Arabia:

- Among the instrumental factors (product, pricing, distribution and communication), only product quality has a significantly positive effect on customer's relationship satisfaction,
- Supplier's benevolence and credibility as well as customer's relationship satisfaction have significantly positive effects on customer's relationship commitment,
- Both customer's relationship satisfaction and relationship commitment are negatively associated with their intention for relationship termination,
- Supplier's opportunism does not have a significant negative effect on customer's relationship satisfaction and relationship commitment, which may reflect the cultural difference between the Western and Saudi Arabian country/company.

As stated in the discussion part, the results are potentially influenced by the cultural difference between the West and Saudi Arabia, therefore a cautious approach may be required when applying the findings to European customer-supplier relationships.

Selnes and Gønhaug (2000) [ID: 147] argue the following relationships of the variables through a survey of 150 customers (decision makers) from the telecommunications industry, not specified but assumed to be in Norway:

- Supplier reliability is positively associated with customer satisfaction but negatively associated with customer's negative effect,
- Customer's negative effect is negatively associated with both customer satisfaction and customer's behavioural intention (loyalty),
- Supplier's benevolence is positively associated with customer's positive effect,
- Customer's positive effect is positively associated with customer's behavioural intention (loyalty),
- Customer's behavioural intention is influenced more by an effective response (positive/negative affect) than a cognitive response (satisfaction),
- Supplier's reliability and benevolence, which have more or less equal effects on customer's behavioural intention, are mediated by negative effect and positive effect respectively.

Venelis and Ghauri (2004) [ID: 157] claim the following correlations of the variables through a combination of qualitative study (i.e. semi-structured interview) and a survey

of 241 customers (marketing/communication directors) from the advertising industry in the Netherlands:

- Qualitative study (interview) provides a support for the construct — bonds, trust and service-quality affect relationship-commitment that affects relationship-intentions (loyalty),
- Switch bonds (tied due to switching cost) have a positive effect on customer's calculative commitment that does not have a significant effect on customer's relational intention,
- Stuck bonds (tied due to customer's internal rules/regulations) have a negative effect on customer's affective commitment but have a direct positive effect on customer's relational intention,
- Trust has a positive effect on customer's affective commitment that has a strong positive effect on customer's relational intention,
- Service quality not only has a strong positive effect on affective commitment but also has a direct positive effect on customer's relational intention,
- Social bonds (social network between the parties) and investment bonds (tied due to investment in knowledge) are not proved to be significantly related to relationship commitment, which is not consistent with the literature.

A criticism is that the difference between relationship intention and commitment in this study is not very clear, which may cause confusion in their findings.

de Ruyter et al. (2001) [ID: 180] argue the following correlations of the variables through a combination of qualitative study (i.e. interview) and a survey of 491 customers from the high-end copier segment in the Netherlands:

- Qualitative study (interview) provides support for the construct — offer (service quality), relationship and market characteristics affect commitment/trust that affects loyalty intention,
- Offer characteristics (service quality) are positively associated with trust as well as loyalty intention,
- Relationship characteristics (account management) are positively associated with affective commitment and trust,
- Market characteristics (switching barriers) are positively associated with both affective and calculative commitment,

- Trust is positively associated with affective commitment and loyalty intention but negatively associated with calculative commitment,
- Both affective and calculative commitment are positively associated with loyalty intention,
- Affective commitment is evenly influenced by offer characteristics (service quality), market characteristics (switching barriers) and trust,
- Trust is more influenced by relationship characteristics (account management) than offer characteristics (service quality),
- Loyalty intention is strongly influenced by affective commitment, followed by trust and then offers characteristics (service quality) and calculative commitment.

A criticism is that the difference between loyalty intention and commitment in this study is not very clear, which may cause confusion in their findings.

Doney and Cannon (1997) [ID: 187] argue the following correlations of the variables through a survey of 210 customers (purchasing managers) from the industrial manufacturing and distribution industry in the USA:

- Antecedents of trust:
  - Supplier firm size and its willingness for customization (adaptation) have a positive effect on customer trust of the firm,
  - Salesperson expertise, likeability/friendliness, similarity in interest/value and contact frequency have a positive effect on customer trust of the person,
  - Customer trust of the salesperson has a positive effect on customer trust of the firm,
  - Supplier's information sharing and relationship length have no significant effect on customer trust of the firm,
  - Salesperson power in the firm, degree of social interaction and relationship length have no significant effect on customer trust of the person,
- Consequences of trust:
  - Selected suppliers and their salespeople are more trusted by customers than those not selected,
  - However, actual purchase choice/decision is not significantly influenced by trust of the supplier firm and its salesperson but is influenced by relative price/cost and delivery performance (service quality and customer value),

- Trust, past purchase experience and current purchase choice/decision influence customer's future purchase intention (intentional loyalty).

In the questionnaire, respondents are asked to 1) reflect on a recent specific purchase decision, 2) nominate selected suppliers and non-selected suppliers, and 3) assess selected suppliers (1/2 respondents) and non-selected suppliers (1/2 respondents). This study is unique in its model/method that tests the link between customer perception and actual purchase decision, which brings the interesting finding: 'trust' has no significant effect on actual purchase decision.

### **3) Customer satisfaction and service quality**

In general, studies in this sub-field shed light on key variables that affect the level of perceived service quality and overall satisfaction.

Parasuraman et al. (1985) [ID: 91] suggest the following 10 variables as determinants of perceived service quality through exploratory interviews of 14 executives from four service firms and 12 focus groups of their customers/users: 1) reliability, 2) responsiveness, 3) competence, 4) access, 5) courtesy, 6) communication, 7) credibility, 8) security, 9) understanding of the customer and 10) tangibles. This is a conceptual paper (not yet empirically investigated when the paper was published), but is one of the most frequently cited papers in the service management area and can be used as a strong conceptual background for the planned empirical study.

Bruhn and Frommeyer (2004) [ID: 109] claim the following links of the variables through a survey of customers (113 in 1999, 107 in 2000 and 120 in 2001) from the IT services industry in Switzerland:

- Core service, empathy and relationship value (i.e. trust, familiarity and fairness) are positively associated with customer satisfaction,
- Customer dialogue is positively associated with customer retention.

A criticism of this study is that 1) the authors failed to demonstrate the expected positive association between satisfaction and retention and 2) although they conducted a longitudinal study (three surveys between 1999 and 2001), expected perceptual changes (time dimension) is not clearly documented.

Homburg and Rudolph (2001) [ID: 125] argue the following relationships of the variables through a combination of qualitative study (i.e. interview) and a survey of 2,552 customers (purchasing, engineering and manufacturing managers) from the mechanical machinery industry in 12 European countries:

- All the seven factors (satisfaction with product, salespeople, product-info, order-handling, technical-service, interaction and complaint-handling) are positively associated with overall customer satisfaction,
- Among others, satisfaction with salespeople, order-handling and complaint-handling are the most important factors for overall satisfaction,
- The important factors are different by customer's functional role:
  - Purchasing manager's overall satisfaction is strongly/positively influenced by its satisfaction with salespeople, and order-handling,
  - Engineer's overall satisfaction is strongly/positively influenced by its satisfaction with complaint-handling,
  - Manufacturing manager's overall satisfaction is strongly/positively influenced by its satisfaction with product, salespeople, and complaint-handling.

The overall methodology (conceptual framework building, interviews to identify missing elements and a survey with large samples to test hypotheses) employed in this study would be the most promising approach compared to other studies in B2B marketing. Furthermore, data analysis methods/techniques used in this study are highly sophisticated.

Homburg and Stock (2004) [ID: 127] highlight the following interrelationship of the variables through a survey of 164 dyads (salespersons and customers) from various industries, not specified but assumed to be in Germany:

- Salesperson's job satisfaction positively influences the perception of his/her customers' overall satisfaction in two ways:
  - Directly through the emotional contagion from salesperson to customer,
  - Indirectly through the quality of salesperson-customer interactions,
- The link between salespeople's job satisfaction and customer satisfaction is particularly strong/significant when:
  - The salesperson-customer interactions are frequent,
  - The customer is highly involved in the supplier's value creating process (high intensity) ,

- The product/service offered by the supplier is innovative.

The conceptual model is based on a social psychological concept (emotional contagion) — “*the receiver catching the emotion being experienced by the sender, wherein the emotion of the receiver converges with that of the sender*” (Howard and Gengler, 2001: P189). This study is highly sophisticated in terms of the applied method (dyadic sampling of salesperson and customer).

Stock (2005) [ID: 153] argues the following correlations of the variables through a survey of 221 suppliers (salespeople) from manufacturing (machinery, electronic and automotive) and service (banking and insurance) industries, not specified but assumed to be in Germany:

- Overall level of customer satisfaction is inversely associated with customer price sensitivity (higher the satisfaction, lower the price sensitivity),
- The inverse relationship between customer satisfaction and price sensitivity is enhanced when the customer perceives:
  - The supplier's products/services are complex,
  - The supplier's product/service specificity (adaptation) is high,
- Perceived importance of the products/services and the size of the customer firm are positively associated with customer price sensitivity (higher the importance and/or larger the customer firm, higher the price sensitivity),
- Relationship age has an inverse effect on customer price sensitivity, while interaction frequency has no significant impact.

The study is based on the equity theory (perceived equity = fairness between inputs and outcomes) and transaction cost theory (transaction specific asset and uncertainty). The concept of this study (customer satisfaction and price sensitivity) is unique in the marketing literature; however, there might be a flaw in its method, i.e. the claimed difference in customer's price sensitivity could be attributed to the industry nature and/or to the specific relationship nature, because a wide range of industries is covered in the survey with one customer input per supplier.

#### **4) Customer relationship**

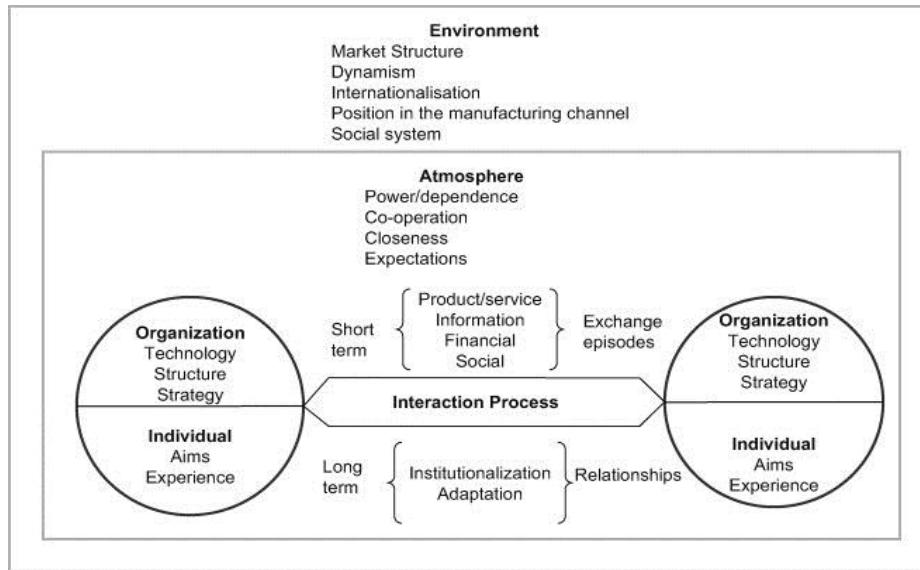
This sub-field is largely influenced by the theoretical and empirical contributions of the Industrial Marketing and Purchasing Group (IMP) that was established in the mid-1970s

by researchers from various universities in Europe (source: IMP official website — <http://www.impgroup.org>).

Håkansson (1982) [ID: 171] suggests the following points as a summary of a series of theoretical and empirical study conducted by the IMP:

- Characteristics of industrial market:
  - Both buyers and sellers are active participants in the market,
  - The relationship between buyers and sellers is frequently long-term and involves a complex pattern of interactions,
  - The link between buyers and sellers becomes institutionalized — each party expects the other to fulfil its responsibilities,
- Key variables that influence the interaction between buyers and sellers are:
  - Elements and process of interaction (short-term and long-term),
  - Buying/selling parties (organisations and individuals),
  - Environment (vertical/horizontal market structure and general social influences), within which the interaction takes place,
  - Atmosphere (power-dependence and conflict-cooperation), affecting and affected by the interaction,
  - Relations between the variables.

It presents one of the most comprehensive frameworks for the buyer-seller relationship in a B2B setting (**Ch-2 Figure 5**). However there are issues from a practicality point of view. It should be used as an overall concept and thus cannot provide implication of any correlations. Furthermore, the whole picture has never been studied — researchers normally select some combinations of variables from the framework when conducting an empirical study (e.g. Walter et al., 2002; Woo and Ennew, 2004).



**Ch-2 Figure 5: IMP Interaction Model (Håkansson, 1982)**

Woo and Ennew (2004) [ID: 160] argue the following correlations of the variables through a survey of 98 customers from the consulting engineering industry in Hong Kong:

- Relationship Quality is defined as a higher-order construct representing Cooperation (behavioural trust and commitment), Adaptation (continuous improvement, responsiveness to changes and coordination) and Atmosphere (attitudinal trust and commitment),
- Relationship Quality has a direct and positive impact on Service Quality but does not directly influence Satisfaction and Behavioural Intentions,
- There is a chain effect — Relationship Quality influences Service Quality that influences Customer Satisfaction that influences Behavioural Intention (loyalty and word-of mouth).

There are some issues with this paper. As stated as a research limitation, this study did not cover transactional quality (what is delivered) when investing service quality. Most importantly, it is hard to understand why the authors conceptualized that service quality is affected by relationship quality. Considering the findings from other empirical studies (e.g. Caceres and Paparoidamis, 2007; de Ruyter et al., 2001; Lam et al., 2004), it should be other way around — in fact they mentioned that service quality may impact on relationship quality over time as part of their conclusion.

Cannon and Perreault (1999) [ID: 173] propose the following eight relationship types through a survey of 443 customers (purchasing managers) from various industries in the USA:

- Basic buying/selling — Low operational linkage, adaptations, legal bonds and expenditure with high trust.
- Bare bones (no frills) — Low info-sharing, legal bonds, cooperation, buyer adaptations trust and expenditure.
- Contractual transaction — Low cooperation, buyer adaptations and trust. High legal bonds, market monitoring. Common in service/public sector.
- Custom supply — Low trust. High seller-adaptations and market monitoring.
- Cooperative systems — Low legal bonds and buyer-adaptations. High operational linkage, cooperation and trust.
- Collaborative — High info-sharing, legal bonds, cooperation and trust.
- Mutually adaptive — Low trust. High operational linkage, info-sharing, adaptations and expenditure. Common in manufacturing sector.
- Customer is king — High operational linkage, info-sharing, legal bonds, cooperation, seller-adaptations, trust and expenditure. Common in manufacturing sector.

Implications from the above taxonomy are:

- The level of operational linkage and info-sharing determines relationship “closeness”,
- Close relationship does not always lead to high level of trust/satisfaction, because customer needs are different by relationship type,
- Relationship length (age) does not have a significant impact on the relationship types.

Walter et al. (2002) [ID: 181] argue the following correlations of the variables through a survey of 303 customers (purchasing managers) from the electronics, mechanical engineering and chemicals industry:

- Customer perception of the supplier's purchasing functions (cost, volume and quality) and network functions (intermediation, information and innovation) are positively associated with customer trust,

- Customer perception of the supplier's purchasing functions and network functions as well as customer trust are positively associated with perceived relationship value,
- Perceived availability of alternative suppliers is negatively associated with perceived relationship value; however, it has a positive moderating effect on the link between:
  - perceived purchasing functions and customer trust,
  - perceived purchasing functions and relationship value,
  - perceived network functions and relationship value.

Kingshott (2006) [ID: 190] claims the following relationship of the variables through a survey of 343 customers (distributors) from the automotive parts industry in Australia:

- Supplier's behaviours engaging in developing/nurturing relationships (relational orientation) have a positive effect on building trust and very strong psychological contracts with its customer,
- Perceived psychological contracts have a positive effect on building trust with its customer and gaining commitment from its customer,
- Perceived trust with the supplier has a positive effect on commitment towards the supplier.

One thing that is not clear in this study is who (in the customer's organisation; e.g. purchasing managers, users or executives) assessed the supplier relationship, which may affect interpretation of the results. Also a criticism of this study is that the demonstrated positive correlation of the constructs can be just common sense, considering the fact that the author asked the respondents (customers) to assess their "major suppliers" which normally mean key partners they rely on.

## **5) Customer value**

There are several definitions of 'customer value' but many may agree that it refers to a trade-off between perceived benefits and sacrifices (e.g. cost) made by the customer (Hansen et al., 2008; Homburg et al., 2005; Walter et al., 2002).

Mentzer et al. (1997) [ID: 70] applied the Means-End Value Hierarchy Model (MEVHM) to clarify customer's underlying logistics needs (benefits and values). They

carried out 13 focus groups with customers of the Defense Logistics Agency (DLA) in the USA. They present the following attributes-to-benefits-to-value customer logic:

- Value: Responsibility to stakeholders,
- Benefits: Delivery effectiveness, Cost saving, Good communication, Customer-friendly procedures and Trust — strategic attention needed from DLA,
- Attributes: Timeliness, Availability, Product quality, Order count, Right product, Follow-up effort, Communication system support, Flexible contract execution, Product/system expertise and Credibility — tactical attention needed from DLA.

The attributes-benefits-value map presented in this paper is specific to DLA's customers even though many of the attributes are associated with traditional logistics operations. The traditional attributes concept "7R's" (Mentzer et al., 1989) referred to in this paper can also provide a good guideline — Deliver the Right product in the Right amount at the Right place at the Right time for the Right customer in the Right condition at the Right price.

Homburg et al. (2005) [ID: 124] applied two of Hofstede's popular cultural dimensions (Hofstede, 1980), Individualism (Germany - Low, USA - High) and Uncertainty Avoidance (Germany - High, USA - Low), to examine the concept of customer value/benefits in B2B markets in an international context. They argue the following correlations of the variables through a survey of 981 customers (purchasing managers) in the chemical, mechanical and electrical engineering industries in both Germany and the USA:

- Product quality and trust (plus service quality, moderately) are important determinants of customer's perception of core benefits,
- Joint action, supplier flexibility and supplier commitment are important determinants of customer's perception of add-on benefits,
- There is a significant cross-cultural effect on customer's perception of benefits, especially:
  - Product quality is more strongly associated with core benefits in Germany than the USA,
  - Supplier flexibility is more strongly associated with add-on benefits in the USA than Germany,
  - Supplier commitment is more strongly associated with add-on benefits in the USA than Germany.

Outside the findings above, the authors argue that customer value is a key success factor in B2B relationships. This study is highly sophisticated in terms of theory building (wide variety of cross-disciplinary referencing) and data analysis. The only criticism of this study is that it is not clear why they selected product quality as key determinants (variables) of customer benefits and why they focused only on individualism and uncertainty avoidance as cultural dimensions.

Hansen et al. (2008) [ID: 176] highlight the following interrelationships of the variables through a survey of 264 customers from the telecommunications industry, not specified but assumed to be in Norway:

- Perceived corporate reputation, information sharing and flexibility are positively related to perceived customer value,
- The impact of corporate reputation (on customer's perceived value) is significantly higher than other effects,
- Perceived customer value has a significantly positive influence on (positive) word-of-mouth,
- Perceived customer value has a negative effect on alternative search — When customers perceive value, they do not actively search for alternative suppliers.

There would be a question about why and how the authors selected/hypothesized the outcomes and variables in the study. Furthermore, it is not clear who (in the customer's organisation; e.g. purchasing managers, users or executives) assessed the perceived value, which may affect interpretation of the results.

## **6) Loyalty**

Studies in this sub-field discuss a wide range of variables (except relationship quality) that finally link to 'intentional loyalty'.

Bennett et al. (2005) [ID: 3] argue the following correlations of the variables through a survey of 267 customers (owners, decision-makers) from the advertising (telephone directory) industry in Australia:

- Involvement (with the brand/supplier selection) and satisfaction (with the brand/supplier deliverables) are positively associated with attitudinal (brand) loyalty,

- Involvement is a more influential factor than satisfaction for loyalty when a buyer has a limited experience with the brand/supplier,
- Satisfaction becomes more important than involvement for loyalty when a buyer gains an extensive experience with the brand/supplier,
- Experience moderates the effect of involvement and satisfaction on loyalty.

There may be some issues in this study. First, the industry under discussion (direct advertising) can be classified as a commodity service and does not seem to fit with one of the authors' selection criteria — high risk B2B service. Furthermore, the model presented in this study looks too simple, compared to similar empirical studies (e.g. Chumpitaz and Paparoidamis, 2004; Johnson et al., 2003).

Johnson et al. (2003) [ID: 128] claim the following relationships of the variables through a survey of 406 customers (purchasing managers) from the business service industry, not specified but assumed to be in the USA:

- Trust is positively associated with satisfaction and appraisal but negatively associated with conflict:
  - Customers with a higher level of trust in salespeople are more likely to have a higher level of satisfaction and relationship appraisal with salespeople,
  - Customers with a lower level of trust in salespeople are more likely to have a higher level of conflict with salespeople,
- Conflict is negatively associated with satisfaction, appraisal and relationship continuity — Customers with a lower level of conflict with salespeople are more likely to have a higher level of satisfaction, relationship appraisal and relationship continuity with salespeople,
- Relationship appraisal is positively associated with relationship continuity and referral (loyalty) — Customers who assess relationships with salespeople positively are more likely to have a higher willingness to continue their relationship with salespeople and provide referrals to salespeople,
- Magnitude (strength) of the following correlations are outstanding among others:
  - Positive: trust and satisfaction, satisfaction and appraisal, and appraisal and referral,
  - Negative: trust and conflict.

This author's argument for their paper is that even though statistically supported, common sense says that there is an overlap between two of the constructs; satisfaction with salespeople and relationship appraisal.

Chumpitaz and Paparoidamis (2004) [ID: 145] argue the following correlations of the variables through a survey of 234 customers (people belonging to a purchasing decision making unit or DMU) from the information technology/system industry, not specified but assumed to be in France:

- Perceived service quality is positively associated with customer satisfaction,
- Functional quality (accessibility and delivery) has a greater impact on customer satisfaction than technical quality (technical assistance and product/service),
- Customer satisfaction is strongly/positively related to customer's intentional loyalty,
- The direct impact of perceived service quality on customer's intentional loyalty is less significant (the impact is mediated by customer satisfaction).

The fact that this study relies on secondary data (a survey done by a consulting firm) would be the reason why it seems less vigorous when compared to other empirical papers.

## **7) Other**

There are two papers that do not belong to any of the six sub-fields above.

Deshpandé and Farley (2002) [ID: 114] argue the following correlations of the variables through a survey of 592 samples (two representatives per customer/supplier combination = 148 company cases) in Japan, France, UK, Germany and the USA:

- Market orientation gap (supplier's self-assessment > customer's assessment) becomes smaller when the relationship becomes longer and is important from customer's point of view,
- Market orientation gap is smaller in a country of a collectivist culture than in a country of an individualist culture,
- Average lengths of relationship are longer in Japan (22 years), France (22 years) and Germany (27 years) than in the UK (14 years) and USA (12 years),

- Market orientation gap is smaller in Japan (close to 0 point) and France (2 points) than in the USA (2.7 points), UK (3.3 points) and Germany (3.5 points).

This is one of the very few studies about cross-national buyer-seller relationship. A criticism of this paper is weakness in its analysis. It conducted only a simple comparison of average scores and correlation coefficients between market orientation gaps, relation length and changes in importance. It could/should have used more sophisticated statistical techniques to find out further meanings from the data.

Money (2004) [ID: 136] argues the following relationships of the variables through a combination of qualitative method (in-depth interviews) and a survey of 434 relationships from 48 buying firms from 10 major business service industries in Japan and the USA:

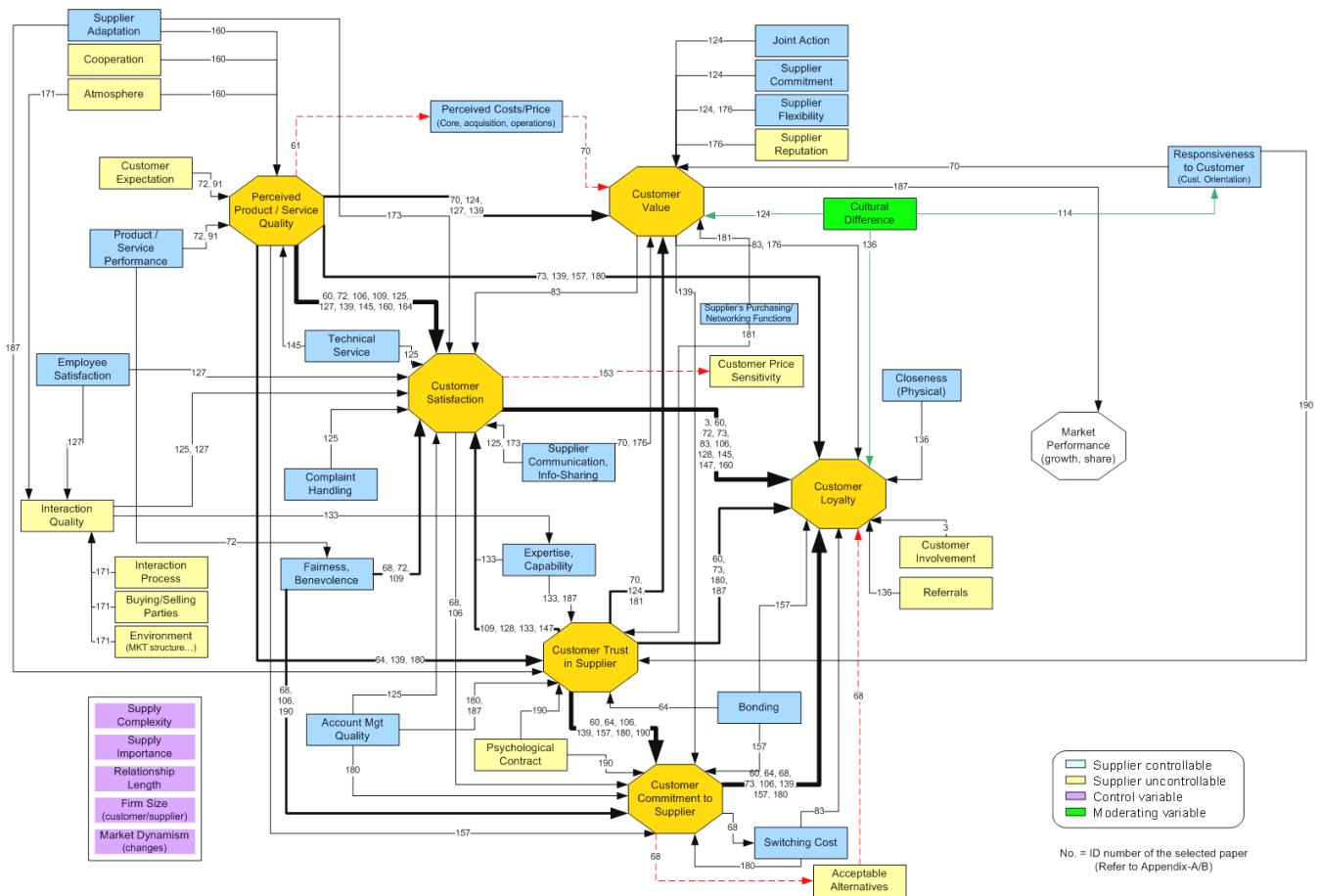
- Word-of-mouth consultation is negatively associated with switching behaviour — Customers who consult referrals are less likely to change their suppliers than those who do not use referrals,
- Customer's location of operation has a significant impact on its switching behaviour:
  - Foreign firms (Japanese firms in the USA and US firms in Japan) are more likely to change their suppliers than domestic firms (Japanese firms in Japan and US firms in the USA),
  - Japanese firms in Japan/USA and US firms in Japan are much less likely to change their suppliers if they use referrals,
  - However, US firms in the USA use fewer referrals and change suppliers regardless of referrals,
- Cultural differences (Japanese firms vs. US firms) seem to have no significant impact on switching behaviours,
- Customer's company age has a significant impact on its switching behaviour — older companies are more likely to change their suppliers than younger ones.

The applied data collection method (Japanese and US firms in national and international markets as well as 10 suppliers per company) is remarkable. The proposed conceptual/research model itself is not proved to be sound (three out of five hypotheses/propositions are not supported); however, findings from the study are noteworthy.

## Literature-based Causal Map (Customer's View)

Here is a summary of the studies conducted on customer perceptions and reactions (including the studies in the logistics industry), which leads to the second causal map (**Ch-2 Figure 6**) below.

**Note:** Relationship quality and loyalty are highlighted in 'gold' as key variables/outcomes, while the rest are marked in 'blue/yellow' as sub-variables. The number in the map represents the ID number of the respective paper, details of which can be found in **Appendix A** and **Appendix B**. Furthermore, to make the map as simple as possible, only the variables/interlinks demonstrated by two or more papers were selected, although some variables discussed by a single study were also included when considered to be critical.



**Ch-2 Figure 6: Literature-based Causal Map (Customer's View)**

As shown in the map above, most would agree that 'relationship quality' — supplier's service quality, received value, overall satisfaction, trust in the supplier and commitment to the supplier — is positioned as a higher order construct of customer perception,

elements of which are related each other and determine the degree of ‘customer loyalty’ (e.g. Caceres and Paparoidamis, 2007; de Ruyter et al., 2001; Doney and Cannon, 1997; Johnson et al., 2001; Patterson et al., 1997; Rauyruen and Miller, 2007).

Furthermore, many authors discuss a wide variety of variables as antecedents of relationship quality and/or loyalty from various aspects. The variables specific to this customer-view causal map (not mentioned in the later supplier-view causal map) are customer expectation (Parasuraman et al., 1985; Patterson et al., 1997), technical service (Chumpitaz and Paparoidamis, 2004; Homburg and Rudolph, 2001), supplier’s purchasing/networking functions (Walter et al., 2002), customer price sensitivity (Stock, 2005), supplier fairness and/or benevolence (Abdul-Muhmin, 2005; Bruhn and Frommeyer, 2004; Johnson et al., 2001; Kingshott, 2006; Patterson et al., 1997;), psychological contract (Kingshott, 2006), referrals (Money, 2004) and customer involvement (Bennett et al., 2005).

In addition, some authors identified factors that intensify or mitigate the degree of interrelationships between the variables. The factors (moderating/controlling variables) specific to this customer-view causal map are cultural differences (Deshpandé and Farley, 2002; Homburg et al., 2005; Money, 2004), supply complexity, supply importance and relationship length (Bennett et al., 2005; Cannon and Perreault, 1999; Deshpandé and Farley, 2002; Patterson et al., 1997; Stock, 2005).

Although some authors propose further fractionalization of variables — attitudinal and behavioural loyalty (Rauyruen and Miller, 2007), affective and calculative commitment (de Ruyter et al., 2001; Gounans, 2005; Rauyruen and Miller, 2007; Venelis and Ghauri, 2004;) and company and employee level commitment/trust (Doney and Cannon, 1997; Rauyruen and Miller, 2007) — it was decided not to take it into account after considering the expected complexity of the consolidated causal map.

## **2. CRM Activities and Business Performance (Supplier’s View)**

As shown in **Ch-2 Table 19**, the literature in this section can be divided into 5 sub-fields: account management, loyalty, chain effect, customer satisfaction & service quality and other (including customer value and customer relationship).

### **1) Account management**

Papers in this sub-field are derived mainly from the sales management, or more precisely, Global/Key Account Management literature. Almost all of them study supplier perspectives rather than customer perspectives.

Birkinshaw et al. (2001) [ID: 57] found the following implications through a survey of 106 global account managers (GAMs) at 16 multi-national corporations (MNCs) from a wide variety of industries in Sweden, the UK, USA and others. In their paper, account performance is defined as efficiency and sales growth plus partnership with customer:

- Greater the customer relationship scope, better the account performance (more or less),
- More extensive the internal support system, better the account performance (more or less),
- More centralized the supplier's sales activities and more decentralized the customer's purchasing activities, better the account performance (only for efficiency/growth),
- More dependent the customer on the supplier, better the account performance (definitely),
- Efficiency and sales growth is predicted by all the variables,
- The level of partnership with the customer can be predicted mainly by customer dependence, not by account management centralization due to possible mismatch between centralized suppliers and decentralized customers,
- High customer dependency enables the supplier to better exploit central account coordination, while low customer dependency does not bring any benefits to supplier's account management,
- Frequency of communication does not affect account performance, which may imply that quality of communication matters rather than quantity.

In this study, voices from customer firms are not included, thus the findings above are purely from suppliers' perspectives. Furthermore, their paper focuses on organisational issues and does not cover marketing challenges (e.g. Workman et al., 2003).

Liu and Leach (2001) [ID: 133] claim the following links of the variables through a survey of 169 customers (key buyers) from the financial staffing service industry in the USA:

- Customer loyalty behaviour is positively related to overall customer satisfaction,
- Overall customer satisfaction is positively affected by the salesperson's perceived credibility (trust and expertise) — A salesperson, as a company representative, can enhance the overall level of customer satisfaction when he/she is perceived as credible,
- Salesperson's perceived expertise has a positive impact on his/her trustworthiness,
- Salesperson's perceived expertise is positively influenced by perceived contact quality with the customer and power of the salesperson in the supplier firm — Customers relate salesperson expertise to the quality/value of the interaction and his/her power in the supplier firm to get things done.

Their hypotheses were tested and proved by a structural equation model; however, from a practitioner's point of view, it may be hard to justify the authors' argument (salespeople credibility/expertise leads to overall satisfaction) without considering the supplier firm's service quality (e.g. Parasuraman et al., 1985) and/or customer value (e.g. Hansen et al., 2008).

Nielson (1998) [ID: 138] argues the following interrelationships of the variables through a survey of 178 suppliers (sales managers) from the industrial distribution and chemical manufacturing industries in the USA:

- Supplier's trust in customer positively influences supplier's adaptation (investment), commitment to the relationship and customer intimacy (closeness),
- Supplier's adaptation (investment) is positively related to supplier's customer intimacy,
- Supplier's customer intimacy (closeness) leads to enhanced joint working and information sharing with the customer,
- Enhanced joint working and information sharing with the customer lead to supplier's relationship benefits (increased share-of-wallet, market share and profits).

There would, however, be a methodological problem in this study. First, this study measured suppliers' perceptions rather than customers' perceptions. The study is not

sure about the validity of the constructs, such as trust and commitment, which are assessed only by suppliers, knowing the fact that quality of the customer-supplier relationships are normally judged by the customer (e.g. “*... it is the customer's view that is likely to be determinant*”, Cannon and Perreault, 1999: P445). Furthermore, the survey asked a respondent (supplier) to choose one specific customer relationship. It would not be reasonable to relate one customer relationship and overall market share and/or company profits by considering the limited impact of just one customer on overall company performance.

Workman et al. (2003) [ID: 168] found the following correlations of the variables through a survey of 385 suppliers (VPs of Sales, 121/USA and 264/Germany) from the food, chemical, machinery, financial services and electronics/computer industries:

- Key account management (KAM) effectiveness is positively affected by (ordered by magnitude/significance): 1) KAM team esprit de corps, 2) Access to marketing & sales resources, 3) Activity intensity, 4) Activity proactiveness and 5) Top management involvement,
- KAM effectiveness has a direct/positive effect on a firm's overall market performance that positively leads to a firm's overall profitability,
- Formalization of the KAM approach has a negative impact on KAM effectiveness,
- Activities (intensity and proactiveness) and Resources (team esprit de corps and marketing & sales resource) are more important success factors than Actors (top management involvement and team coordination) and formalization,
- Market dynamism has a negative effect on KAM effectiveness but a positive effect on the firm's performance in the market,
- Competitive intensity has a negative effect on both the firm's performance in the market and profitability.

The conceptual model is based on a theory of the firm — ‘Actors performing Activities, employing Resources’ (Demsetz 1992: P7, quoted in Workman et al., 2003). The research results could be more convincing if the authors had used external reports for market performance and profitability rather than self-reported measures.

Sengupta et al. (2000) [ID: 183] argue the following relationships of the variables through a survey of 176 suppliers (Key Account Managers) from various industries in the USA:

- Individual abilities affect the relationship process that in turn determines relationship outcomes:
  - Strategic ability (thinker) is positively related to communication quality,
  - Intrapreneurial ability (doer) is positively related to customer trust,
  - Communication quality and customer trust are positively related to KAM effectiveness,
- Strategic ability and intrapreneurial ability are positively related each other — Both abilities (thinker and doer) are required for KAMs,
- Intrapreneurial ability has a positive and direct impact on KAM effectiveness.

As stated in the limitations, since the research is dependent on KAMs' self-assessments, it may be hard to regard the findings as acceptable KAM effectiveness determinants. They could/should have collected at least KAMs performance data from their customers, their managers or other sources to make the study convincing.

## **2) Loyalty**

Almost all the papers in this sub-field discuss a wide range of variables that finally link to 'intentional loyalty', mainly applying a dyadic (supplier and customer) data collection method.

Bendapudi and Leone (2002) [ID: 59] found the following implications through a qualitative research (grounded theory approach and open-ended questionnaire) of customers and their suppliers from service, industrial goods and consumer goods industries:

- In the situation that the firm level relationship with the customer is weak and the employee level relationship is strong, the relationship would be vulnerable in the face of losing a key contact employee,
- In the opposite situation (strong firm level and weak employee level relationship), the relationship would not be affected in the face of losing a key contact employee,
- In the situation that both the firm level and employee level relationships are strong, the relationships would potentially be vulnerable in the face of losing a key contact employee.

The approach in this study can definitely enhance its trustworthiness but it is too labour intensive and I am not sure about their return on investment. Moreover, it is not clear how they selected interview samples, which might pose a reliability question regarding the study.

Cannon and Homburg (2001) [ID: 61] highlight the following implications through a survey of 529 customers (purchasing managers, 302/Germany and 227/USA) from the chemical, mechanical and electrical industries:

- Frequent written communication leads to lower acquisition/operations costs for a customer,
- Frequent face-to-face communication leads to lower operations costs for a customer,
- Supplier's greater flexibility results in lower acquisition/operations costs for a customer,
- Geographic closeness of the supplier's facilities helps a customer to lower acquisition costs,
- Active searches for alternatives (i.e. bidding) lead to higher operations costs for a customer,
- Product quality not only enables a customer to lower acquisition/operations costs but also drives a customer's future purchase intention,
- A customer is willing to expand business with the suppliers who can lower its direct product, acquisition and operations costs,
- Supplier's open information sharing does not affect any of the customer costs but drives the customer's future purchase intention.

It would be too ambitious to test nine (22 sub) hypotheses in a single survey; as a result half of them are statistically rejected.

Homburg and Fürst (2005) [ID: 122] argue the following correlations of the variables through a survey of 110 dyads (five customers per supplier) from service and manufacturing industries in both business-to-business (B2B) and business-to-consumer (B2C) settings:

- Both the mechanistic approach (formal process, behavioural and outcome guideline) and the organic approach (internal supportiveness) to complaint

handling have positive impacts on customer's evaluation (perceived fairness) of the complaint handling:

- The impact of the formal process and outcome guideline on customer's evaluation is weaker in a B2B setting than in a B2C setting,
- The impact of the formal process, behavioural and outcome guideline on customer's evaluation is stronger in the service industry than in the manufacturing industry,
- The impact of the internal supportiveness on customer's evaluation is consistent and not affected by a business setting (B2B/B2C) or industry (service/manufacturing),
- The mechanistic approach (hard factors) has a stronger impact on complaint satisfaction (through perceived fairness) than the organic approach (soft factors),
- Perceived fairness of the complaint handling is positively related to complaint satisfaction,
- Complaint satisfaction (transaction-specific) leads to overall satisfaction (cumulative) as well as loyalty,
- Impact of the overall satisfaction on loyalty is not significant, which may imply that after a complaint, a customer perception is dominated by the transaction than overall experience.

The study is based on the behavioural theory of the firm, role theory and justice theory. This is a unique study that covers both service and manufacturing industries as well as both B2B and B2C settings — B2B is characterized by a small number of customers, long-term relationships and high degree of interactions, while the service industry is characterized by the inseparability of production/consumption and heterogeneity of performance output (Homburg and Fürst, 2005).

Wathne et al. (2001) [ID: 191] claim the following relationships of the variables through quantitative interviews (16 hypothetical scenarios) with 114 customers (business/general managers) and 37 Key Account Managers of a corporate financing company:

- Interpersonal relationship between a customer firm and an account manager has a negative effect on customer's switching intention (both customer and supplier samples),

- Perceived firm-level switching cost has a negative effect on customer's switching intention (both customer and supplier samples),
- Price difference has a strong positive effect on customer's switching intention (both customer and supplier samples),
- Difference in product breadth has a positive effect on customer's switching intention (both customer and supplier samples),
- Customer's firm size is positively associated with its switching intention (tested with only customer samples),
- The effect of price difference on customer's switching intention is negatively moderated by the perceived firm-level switching cost (only customer samples),
- The effect of product breadth difference on customer's switching intention is negatively moderated by the perceived firm-level switching cost (only customer samples),
- Interpersonal relationship does not have a significant moderating effect on the positive linkage between price/product-breadth difference and customer's switching intention (both customer and supplier samples),
- Both the customer and supplier consider 'price' is the most important factor influencing customer's switching intention,
- The customer considers 'firm-level switching cost' is the second most important factor influencing its switching intention, whereas, the supplier considers 'interpersonal relationship' is the second most important factor followed by 'firm-level switching cost'.

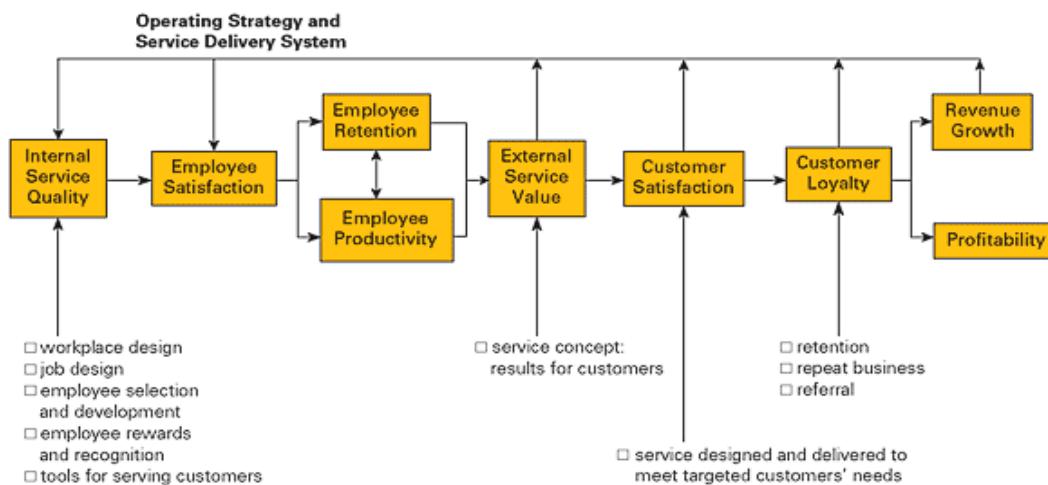
The method and technique applied in this study (the quantitative interview with scenarios, coding scheme and comparison of customer/supplier scores) are unique and can be a better approach to investigate customer/supplier perceptions than a traditional questionnaire approach. However, as the findings are based on hypothetical scenarios, they might not be true in a real business situation, which can be the weakness of the method used in this study.

### **3) Chain effect**

Papers in this sub-field discuss some kind of chain effect, linking customer perception and company performance, which brings a much broader perspective than that in other fields.

Heskett et al. (1994) [ID: 97] propose the following chain effects of the variables in a well-known ‘Service-Profit Chain’:

- Profit and growth are stimulated primarily by customer loyalty,
- Loyalty is a direct result of customer satisfaction,
- Satisfaction is largely influenced by the value of services provided to customers,
- Value is created by satisfied, loyal, and productive employees,
- Employee satisfaction is primarily enhanced by high-quality internal support services and policies which enable employees to deliver results to customers.



**Ch-2 Figure 7: The Links in the Service-Profit Chain** (Heskett et al., 1994)

This is a commercial article, thus does not provide a literature review, research method and data analysis; however, it is well-perceived not only in the commercial but also the academic world. It provides an integrated view of how a firm’s service quality improvement (or investment) is linked to customer perceptions/behaviours that affect its business and financial performance (Kamakura et al., 2002).

Rust et al. (1995) [ID: 98] suggest a theoretical framework called ‘Return on Quality’ (ROQ), which is characterized by the following assumptions:

“1) *Quality is an investment*, 2) *Quality efforts must be financially accountable*, 3) *It is possible to spend too much on quality*, and 4) *Not all quality expenditures are equally valid.*” (P60).

Furthermore, the chain effects between service quality improvement efforts and profitability are theoretically described by them as follows:

*“The improvement effort, if successful, results in an improvement in service quality. Improved service quality results in increased perceived quality and customer satisfaction and perhaps reduced costs. Increased customer satisfaction in turn leads to higher levels of customer retention, and also positive word-of-mouth. Revenues and market share go up, driven by higher customer retention levels and new customers attracted by the positive word-of-mouth. The increased revenues, combined with the decreased costs, lead to greater profitability” (P60)*

The theoretical concept presented in this paper, from the questionnaire design to ROQ simulation and investment decision, was tested in a real business situation (a large national hotel chain in the USA) and proved to be valid.

Kamakura et al. (2002) [ID: 24] empirically tested a combination of the ‘Service-Profit Chain’ (Heskett et al., 1994) and ‘Return on Quality’ framework (Rust et al., 1995) through a survey of 5,055 customers of a leading Brazilian national bank. Their key findings can be summarised as follows:

- All of the links in the Service-Profit Chain (SPC) and Return on Quality (ROQ) are supported — Investment in service quality leads to positive customer perceptions that lead to customer intentions (loyalty) that lead to a greater retention rate that leads to higher profitability,
- It is important to consider the SPC effect with ROQ because higher service quality is not an unconditional guarantee of profitability,
- Customer intention (loyalty or positive word-of-mouth) has a positive impact on the level of retention,
- Customer perception is more influenced by the improvement of personnel than that of equipment, while investment in personnel improvement/development has a greater negative impact on profitability.

#### **4) Customer satisfaction and service quality**

In general, studies in this sub-field discuss antecedents of customer satisfaction and/or consequences of customer satisfaction.

Fynes and Voss (2002) [ID: 63] argue the following correlations of the variables through a survey of 202 suppliers (operations/quality managers) from the electronics manufacturing industry in Ireland:

- Quality practices positively affect both design quality and conformance quality (i.e. internal defection rate),
- Design quality positively affects conformance quality and external quality-in-use (i.e. external defection rate) as well as reduction of time-to-market and product cost,
- Conformance quality positively affects external quality-in-use and reduction of product cost,
- Customer satisfaction is positively affected by external quality-in-use but negatively affected by product cost,
- Relationship strength moderates the linkage between quality practices and design quality.

There would be the following issues in this study. First, it is unclear why the authors selected suppliers as survey samples rather than customers or even both customers/suppliers when studying 'relationship'. Furthermore, the method employed to measure 'customer satisfaction' looks much less grounded compared to other marketing studies. This can be one of the reasons why they failed to prove the expected link between customer satisfaction and business performance.

Keiningham et al. (2003) [ID: 129] found the following implications through a survey of 348 customers (information system managers, product managers and purchasing managers) of a financial services company, not specified but assumed to be in the USA:

- Customer satisfaction is positively associated with share-of-wallet,
- The relationship between customer satisfaction and share-of-wallet is non-linear:
  - Real positive impact (higher share-of-wallet) can be expected only at very high satisfaction levels (e.g. > 8 out of a 10 point rating),
  - Considering the nature of the relationship (non-linear), a method using only a linear correlation analysis may mislead to a wrong conclusion ,
- The correlation between satisfaction and share-of-wallet varies by customer's departmental functions (e.g. IS, product management and procurement).

On top of the implications above, the authors argue that 1) one cannot expect a big difference between the level of share-of-wallet and repurchase intentions (even though

they are quite different) if self-reported share-of-wallet measures are applied, 2) one would easily (wrongly) find positive correlations between satisfaction level, repurchase intention and share-of-wallet if these measures are included in a single questionnaire.

Madaleno et al. (2007) [ID: 134] argue the following correlations of the variables through a survey of 579 customers from the high-technology services industry in the UK:

- Multi-channel integration, channel satisfaction, product/service satisfaction and price equity are all positively associated with overall customer satisfaction,
- Option of multiple channels, consistency across channels, satisfaction with products/services and price equity are the most important factors positively/strongly related to overall customer satisfaction,
- Channel (salesforce and website) satisfaction is positively related to overall customer satisfaction; however, its impact is less than the above factors.

### **5) Other (incl. customer value and relationship)**

There are four papers that do not belong to any of the four sub-fields above.

Ulaga and Eggert (2006) [ID: 53] conducted a combination of qualitative study (exploratory depth interviews) and a survey of 400 customers (senior purchasing managers) from the manufacturing industry in the USA. Through the interviews, they identified following nine value drivers for buyer-supplier relationship — Product Quality (performance, reliability, consistency), Delivery Performance (on-time, flexibility, accuracy), Service Support (responsiveness, info management, out-sourcing), Personal Interaction (getting along well, involving top management), Supplier Know-How (supply market knowledge, experience, involvement in NPD), Time to Market (accelerating R&D process), Direct Product Cost (fair market price and continuous reduction), Acquisition Cost (inventory, order-handling, product inspection), and Operations Cost (product, process, tooling, warranty cost). Through the survey, they identified the following facts and implications:

- A key supplier captures 73% of customers' order volumes while the second supplier does 20% and the rest (back-up suppliers) do 7%,
- “Relationship Benefits” represent 80% of the customer-supplier relationship value, whereas “Relationship Costs” account for only 20%,

- Costs are key criteria to be shortlisted but benefits are essential to gain key supplier status,
- Service support, personal interaction, know-how and time-to-market represent 73% of perceived values,
- Core product (quality and delivery) and its costs become less important differentiators in customer-supplier relationships.

Frankwick et al. (2001) [ID: 15] carried out a longitudinal study to investigate changes in salesperson-customer relationship status. They provide the following implications through a two-wave survey of individual customers (1<sup>st</sup> survey: 2,311 and 2<sup>nd</sup> survey: 983) from the life insurance industry, not specified but assumed to be in the USA:

- Higher relationship status is awarded to the salespeople:
  - who demonstrate greater commitment to their customers,
  - who receive greater corporate support (DM, advertising and customer response),
  - whose customers receive less negative info about the value of the service/company,
- Salespeople who achieve the relationship status of “primary” can:
  - gain higher share-of-wallet (51%) than that of others (secondary: 30%, ad hoc: 25%),
  - cross-sell other services more (72%) than others (secondary: 16%, ad hoc: 26%),
- Salespeople at the relationship status of “secondary” are more vulnerable (lapse rate of 20% in 1 year) than others (lapse rate of < 10% on average in 1 year).

The authors provide no detailed information about the supplier(s), measurement development and outcome measures, which might make the study less grounded.

Homburg et al. (2007) [ID: 22] highlight the following implications through a survey of 280 suppliers (VP of marketing and sales) from manufacturing and service industries:

- Responsiveness to customer/competitor is positively related to a firm's performance,
- Customer orientation is driven by an affective system (culture, symbolic management), while competitor orientation is driven by a cognitive system (info processing, competitive intelligence),

- Firms with high market share place less importance on customer/competitor orientation concerning information processing,
- Firms in a market of low entry barrier are more competitor-oriented regarding info processing.

In addition to the findings above, the authors develop the following arguments. Responsiveness to environmental changes (customers and competitors) is the key success factor. Theories on individual-level behaviour can be used to understand organisational-level phenomena. Market orientation should be examined separately, i.e. customer and competitor orientation. The only criticism of this study regarding customer-orientation is that it relies on the suppliers' self-assessment only, not their customers' assessment, which might make their argument less convincing.

Brush and Rexha (2007) [ID: 110] argue the following correlations of the variables through a survey of 187 customers (purchasing managers) with 374 relationships (two supplier cases/relationships per customer) from the industrial manufacturing industry in Singapore:

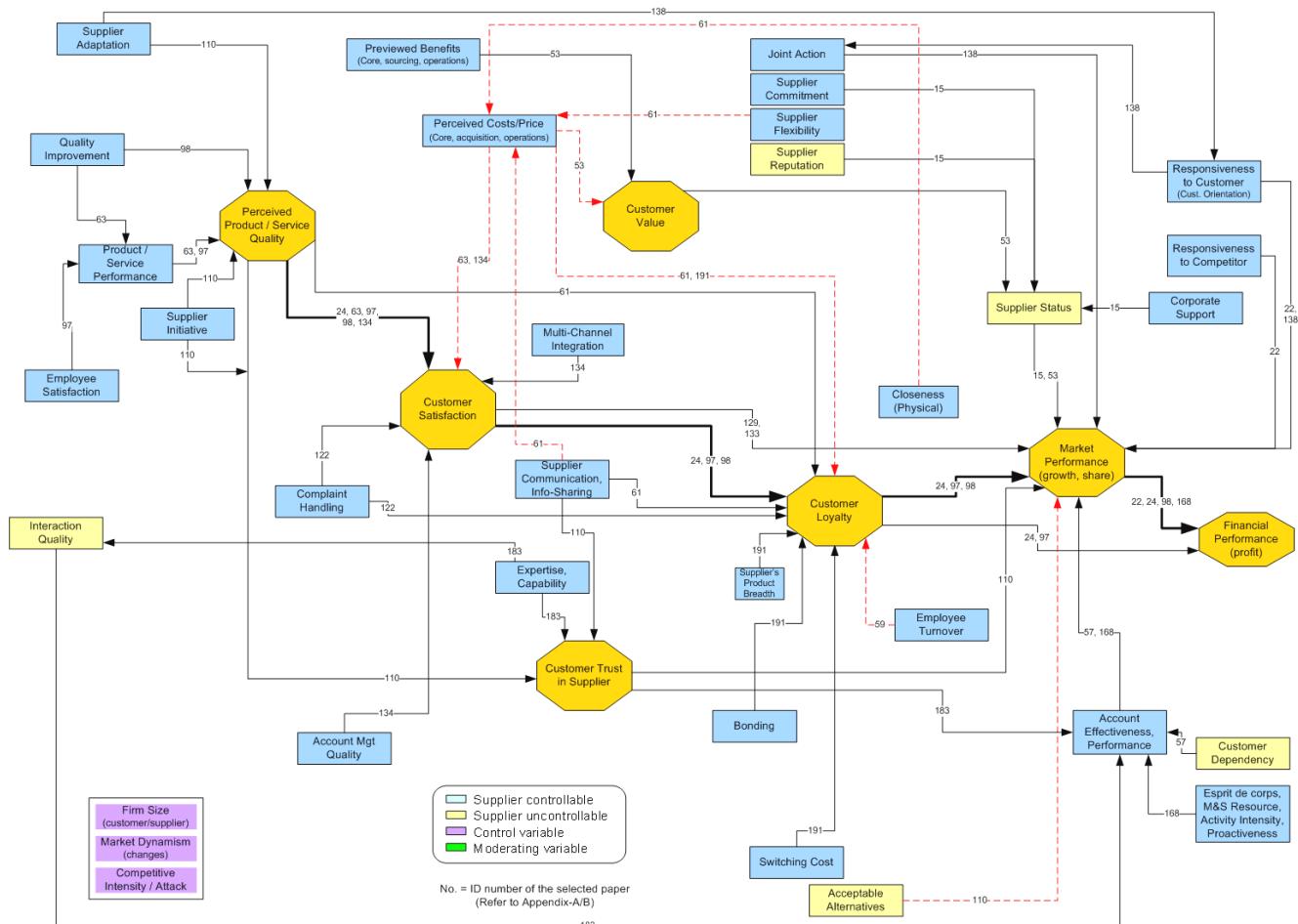
- Both supplier investment and initiatives are positively associated with customer's perception of supplier performance,
- Supplier initiatives (proactive actions) are perceived to be significantly more important than supplier investment (reactive actions),
- Supplier initiatives and performance as well as signalling and disclosing behaviours are positively associated with the level of trust in the supplier,
- Supplier performance is perceived to be significantly more important than the rest,
- Supplier performance and its perceived level of trust are (equally) positively associated with the supplier's share-of-wallet,
- Perceived availability of alternatives, on the other hand, is negatively associated with the supplier's share-of-wallet.

The study is based on transaction cost economics and relational exchange theory. The authors claim that this is the first empirical study to investigate the effect of supplier performance and trust on share-of-wallet in the Chinese-dominated setting. One advantage of this study is the measurement of actual share-of-wallet rather than customer's behavioural intentions, which makes the paper managerially meaningful.

## Literature-based Causal Map (Supplier's View)

Here is a summary of the studies conducted on customer relationship management activities and business performance, which leads to the third causal map (**Ch-2 Figure 8**) below.

**Note:** Relationship quality, loyalty and market/financial performance are highlighted in 'gold' as key variables/outcomes, while the rest are marked in 'blue/yellow' as sub-variables. The number in the map represents the ID number of the respective paper, details of which can be found in **Appendix A** and **Appendix B**. Furthermore, to make the causal map as simple as possible, only the variables/interlinks demonstrated by two or more papers were selected, although some variables discussed by a single study were also included when considered to be critical.



**Ch-2 Figure 8: Literature-based Causal Map (Supplier's View)**

As shown in the map above, the chain effect (Heskett et al., 1994; Rust et al., 1995), i.e. service quality – customer satisfaction – loyalty – market performance – financial

performance, would provide a guideline to the expected linkage between customer relationship management activities and business performance.

Many authors, on the other hand, discuss a wide variety of variables as antecedents of the key factors that influence the chain effect. The variables specific to this supplier-view causal map (not mentioned in the earlier customer-view causal map) are quality improvement (Fynes and Voss, 2002; Rust et al., 1995), supplier initiatives (Brush and Rexha, 2007), perceived benefits (Ulaga and Eggert, 2006), multi-channel integration (Madaleno et al., 2007), product breadth (Wathne et al., 2001), employee turnover (Bendapudi and Leone, 2002), supplier status (Frankwick et al., 2001), responsiveness to competitors (Homburg et al., 2007) and account effectiveness/performance (Birkinshaw et al., 2001; Workman et al., 2003).

In addition, some authors identified factors that intensify or mitigate the degree of interrelationships between the variables. The factor specific to this supplier-view causal map is competitive intensity (Homburg et al., 2007; Workman et al., 2003).

## V. SYNTHESIS OF THE RESULTS

It has become clear through the comparison of the two causal maps (**Ch-2 Figure 6** and **Ch-2 Figure 8**) that there is considerable overlap in the outcomes and key variables between the two — 18 out of 50 variables, an overlap of 36%.

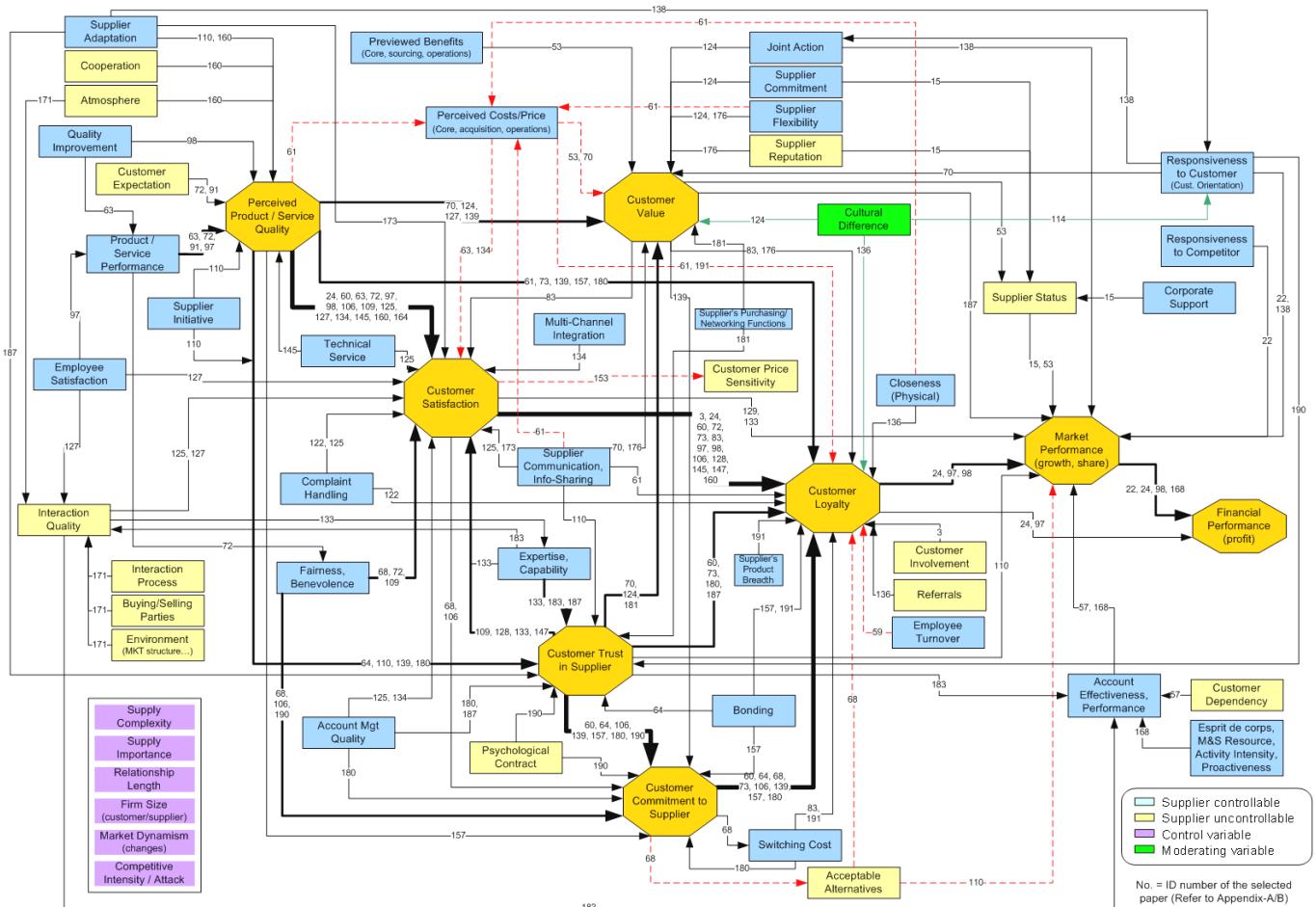
The variables (antecedents of relationship quality, loyalty and performance) in common between the two causal maps are supplier adaptation (Brush and Rexha, 2007; Cannon and Perreault, 1999; Doney and Cannon, 1997; Woo and Ennew, 2004), employee satisfaction (Heskett et al., 1994; Homburg and Stock, 2004), service performance (Heskett et al., 1994; Parasuraman et al., 1985; Patterson et al., 1997; Ulaga and Eggert, 2006), perceived cost/price (Cannon and Homburg, 2001; Fynes and Voss, 2002; Madaleno et al., 2007; Mentzer et al., 1997; Ulaga and Eggert, 2006; Wathne et al., 2001), joint action (Homburg et al., 2005; Nielson, 1998), supplier commitment (Frankwick et al., 2001; Homburg et al., 2005), supplier reputation (Frankwick et al., 2001; Hansen et al., 2008), interaction quality (Homburg and Rudolph,

2001; Homburg and Stock, 2004; Liu and Leach, 2001; Sengupta et al., 2000), complaint handling (Homburg and Fürst, 2005; Homburg and Rudolph, 2001), communication/info-sharing (Brush and Rexha, 2007; Cannon and Homburg, 2001; Cannon and Perreault, 1999; Hansen et al., 2008; Homburg and Rudolph, 2001; Mentzer et al., 1997), expertise/capability (Doney and Cannon, 1997; Liu and Leach, 2001; Sengupta et al., 2000), account management quality (de Ruyter et al., 2001; Homburg and Rudolph, 2001; Madaleno et al., 2007), bonding (Gounans, 2005; Venelis and Ghauri, 2004; Wathne et al., 2001), switching cost (de Ruyter et al., 2001; Lam et al., 2004; Johnson et al., 2001; Wathne et al., 2001), acceptable alternatives (Brush and Rexha, 2007; Johnson et al., 2001), physical closeness (Cannon and Homburg, 2001; Money, 2004) and customer orientation (Homburg et al., 2007; Kingshott, 2006; Mentzer et al., 1997; Nielson, 1998).

In addition, some authors identified factors that intensify or mitigate the degree of interrelationships between the variables. The factors in common between the two causal maps are firm size (Doney and Cannon, 1997; Stock, 2005; Wathne et al., 2001) and market dynamism (Cannon and Perreault, 1999; Workman et al., 2003).

The facts above imply that the two constructs: customer perceptions/reactions (customer's view) and customer relationship management activities and performance (supplier's view) are not mutually exclusive. For instance, to understand key elements of customer relationship management activities that impact on a firm's business performance, one may need to know key factors that affect customer's perceptions and reactions. Therefore, to make the causal map comprehensive, the two maps were integrated into one and are visualized in **Ch-2 Figure 9** below.

**Note:** Relationship quality, loyalty and market/financial performance are highlighted in 'gold' as key variables/outcomes, while the rest are marked in 'blue/yellow' as sub-variables. The number in the map represents the ID number of the respective paper, details of which can be found in **Appendix A** and **Appendix B**. Furthermore, to make the map as simple as possible, only the variables/interlinks demonstrated by two or more papers were selected, although some variables discussed in a single study were also included when considered to be critical.



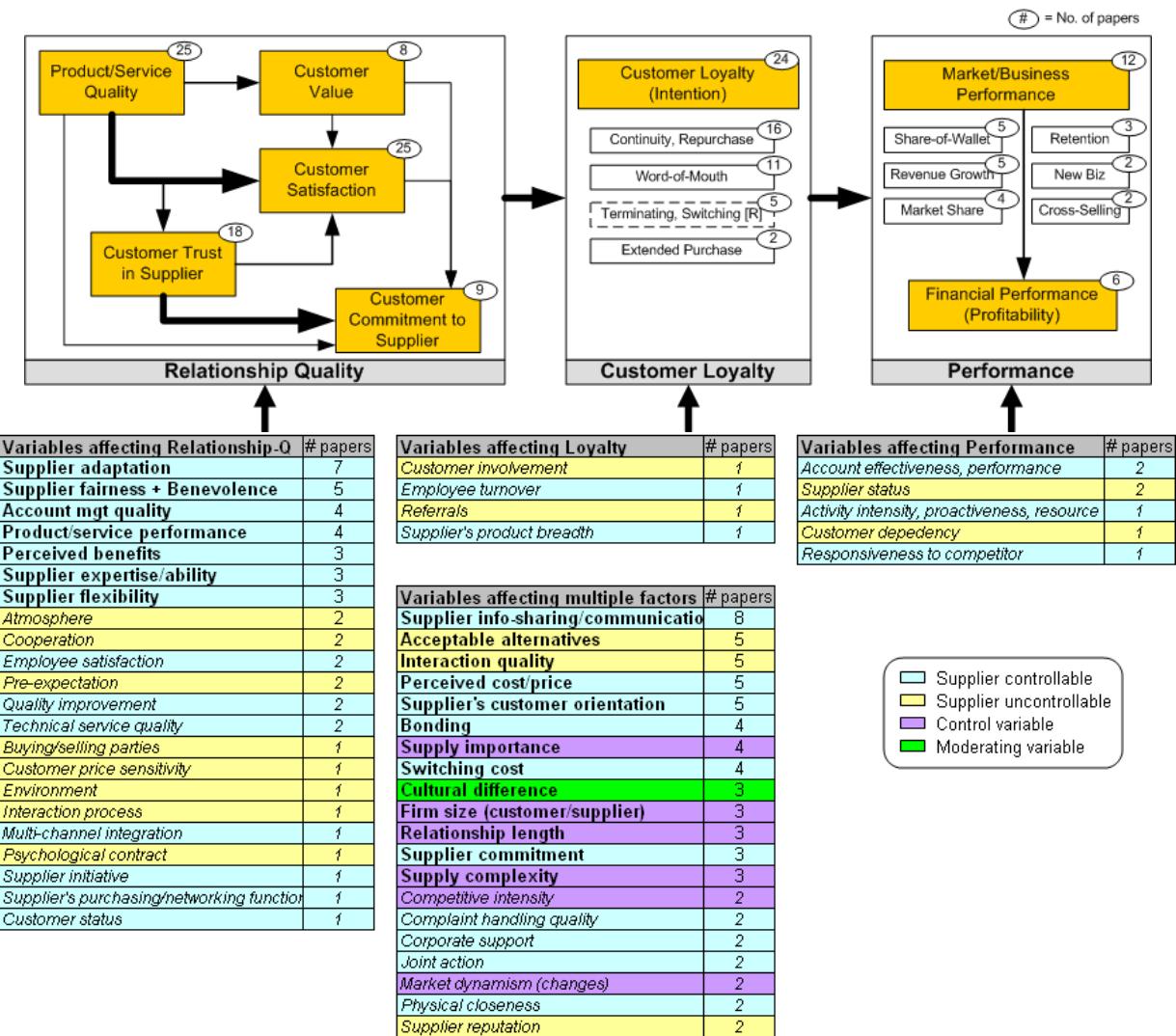
**Ch-2 Figure 9: Integrated Literature-based Causal Map**

The map above provides a comprehensive outlook of the interrelationships of the variables both from customers' and suppliers' points of view. However, it is obvious that the causal map is too complicated and not suitable to be presented as a theoretical model. The complication may be due to different theoretical backgrounds, methods and analyses brought by a wide variety of researchers. Therefore, in order to make it presentable and understandable, it was decided to separate high-level constructs from variables (or drivers).

First, the high-level constructs are discussed. Out of the selected 50 papers, approximately 90% of them position the following factors as outcome measures: loyalty (20 papers), customer satisfaction (7), market performance (6), profitability (6) and customer value (4). By adding the most frequently studied/proved influential variables, i.e. product/service quality (25 papers), customer trust (18) and customer commitment (9), eight key factors are highlighted. Five of the interdependent factors are first grouped

into one category, ‘relationship quality’, by applying commonly used definitions (Caceres and Paparoidamis, 2007; Rauyruen and Miller, 2007; Woo and Ennew, 2005). Customer loyalty, which is defined as a customer’s intention to repurchase or provide word-of-mouth (e.g. Lam et al., 2004; Rauyruen and Miller, 2007), can be independent from the relationship quality. Finally, the remaining factors, market/business performance (e.g. share-of-wallet, revenue growth and market share) and financial performance (i.e. profitability), are grouped into one category, ‘performance’. The high-level constructs discussed here are visualized in the upper half of the simplified model below (**Ch-2 Figure 10**).

After taking the high-level constructs out of the integrated causal map, there remain 50 variables. These were regrouped based on the constructs above and are shown in the lower half of the simplified model below (**Ch-2 Figure 10**). Some might disagree with this grouping of the variables, especially that of relationship quality. ‘Supplier adaptation’, for instance – Woo and Ennew (2004) argue it affects ‘perceived service quality’, while Cannon and Perreault (1999) argue it affects ‘customer satisfaction’ and Doney and Cannon (1997) argue it affects customer commitment. However, it would not be productive to see the correlations independently because, after all, service quality, customer satisfaction and commitment are supposed to be related each other (e.g. Abdul-Muhmin, 2005).



**Ch-2 Figure 10: High-level Constructs and Key Variables**

## VI. DISCUSSION

### 1. Critical Review of the Variables/Interrelationships

There are two criteria to consider when selecting the right factors (e.g. variables, concepts) to develop a theory — comprehensiveness and parsimony (Whetten, 1989). By systematically selecting and exploring empirical research papers, 50 variables have been identified in this study, which would fulfil the first criterion of ‘comprehensiveness’. However, the second criterion of ‘parsimony’ would need to be considered because not all the variables are significantly adding value to the causal map. Therefore, all the 50 variables and their interrelationships were re-investigated and then classified into the

following categories: 1) to be eliminated, 2) to be merged, 3) to be modified, 4) to be selected and 5) to be separated.

### **1) *Elimination of variables***

The following 15 variables were suggested to be discarded from the list because they are A) considered to have no direct impact on relationship quality/customer loyalty or are influential only on specific situations, B) supposed be included in other variables, C) measured with multiple (different) definitions or D) too generic to be included in the final model.

#### **A. No direct impact or only specific situations**

'Physical closeness' is claimed to have a negative impact on perceived 'cost/price' (Cannon and Homburg, 2001) and a positive impact on customer loyalty (Money, 2004). It was decided, however, not to select this because the former claim is not directly linked to relationship quality factors or loyalty (one level lower/detail), while the latter claim is based only on the specific situation (e.g. Japanese firms in the US vs. Japanese firms in Japan). 'Referral' is presented to be negatively associated with customer's 'switching behaviour' (Money, 2004); however, as the study focused on starting-up SMEs, this may not be fully applicable to my preferred organisation type of MNCs. Homburg et al. (2007) argue that 'responsiveness to competitor' (degree of a firm's competitor orientation) is positively associated with a firm's performance. Although this is an interesting viewpoint, since this is out of my current systematic review scope, it was decided not to include it in the final model. This variable will certainly be considered in the later study.

#### **B. Included in other variables**

The level of 'corporate/internal support' is presented as one of the key factors to gain higher 'relationship status' (Frankwick et al., 2001), but this element can be considered as part of other defined variables, such as 'supplier communication' and 'account management quality'. Walter et al. (2002) argue that 'supplier's purchasing/networking functions' affect customer value and customer trust. However, considering their definitions (purchasing function includes cost, volume and quality, while network function includes intermediation, information and innovation), these functions can be regarded as being part of other variables — perceived 'cost/price', 'benefits', 'product/service quality', 'account management quality' and 'info-sharing'. 'Joint action' between customer and

supplier is found to be positively related to customer value (Homburg et al., 2005) and market performance (Nielson, 1998). However, since ‘joint action’ can positively affect ‘customer value’ only when it meets customer needs, it may be not far away from ‘adaptation’ and/or ‘customer orientation’. ‘Quality improvement’ is claimed to have a positive effect on perceived ‘service quality’ (Fynes and Voss, 2002; Rust et al., 1995). This is common sense because when a supplier invests in improving quality, the effect is normally recognised by a customer at least in a B2B setting. Therefore, this can be considered as part of ‘product/service performance’. Chumpitaz and Paparoidamis (2004) and Homburg and Rudolph (2001), on the other hand, argue the importance of ‘technical service quality’, which would be reasonable but this can be considered to be part of ‘product/service performance’ or overall ‘product/service quality’. ‘Customer dependency’ is claimed to have a positive impact on ‘account effectiveness/performance’ (Birkinshaw et al., 2001). However, considering its definition, it can be regarded as part of ‘key supplier status’, ‘share-of-wallet’ and ‘supply complexity/importance’.

### **C. Multiple definitions**

Some authors discuss ‘interaction quality’ as one of the key factors, but its definition varies from one study to another. For instance, Homburg and Stock (2004) define it as the degree of perceived ‘customer orientation’, while Håkansson (1982) considers it as an overall relationship quality assessment from both parties. Thus it is apparent that it does not fit into the final model. ‘Atmosphere’ and ‘cooperation’ are presented mainly by Woo and Ennew (2004) to have a positive effect on perceived service quality. However, their definition of the variables is not very clear and is confusing — they define atmosphere as behavioural trust/commitment and cooperation as attitudinal trust/commitment. Therefore these variables are discarded.

### **D. Too generic**

Håkansson (1982) argues that ‘buying/selling parties’, ‘environment’, ‘atmosphere’ and ‘interaction process’ are the key factors influencing the interaction between customer and supplier. This is a broadly accepted concept but these factors would be too generic to be included in the final model.

## **2) Merger of variables**

The following four variables were suggested to be merged into two due to the similarities in variable definitions.

'Supplier flexibility' (definition: willingness/capability to adapt to customer needs) is claimed to have a positive impact on customer value (Hansen et al., 2008; Homburg et al., 2005) and a negative impact on perceived 'cost/price' (Cannon and Homburg, 2001), while 'supplier adaptation' (definition: responsiveness to customer's changing needs) is claimed to have a positive impact on perceived 'product/service quality' (Brush and Rexha, 2007; Woo and Ennew, 2004), customer satisfaction (Cannon and Perreault, 1999) and customer trust (Doney and Cannon, 1997). Although 'flexibility' and 'adaptation' are claimed to be associated with different relationship quality factors, considering their similarities in definitions as well as the limitations of questionnaire surveys and statistics techniques (if not considered/tested, no correlation to be found), these variables can be merged as 'flexibility/adaptation' and considered to be one of the key variables for relationship quality. de Ruyter et al. (2001) found that 'account management quality' (definition: quality of account support, communication, conflict harmonization and cooperation) affects customer trust and commitment, which leads to loyalty. Workman et al. (2003), on the other hand, found that 'team esprit de corps, resource, activity intensity and proactiveness' affect account management effectiveness which leads to market performance. They seem to be discussing different topics, but considering the latter definition of 'account management effectiveness' (trust, fairness, long-term relationship and meeting sales targets, which is similar to customer trust/commitment), their findings would be quite close to each other. Therefore, the two variables can be merged into one — 'account management quality'.

## **3) Modification of variables/interrelationships**

The following variables and interrelationships were adjusted or modified, partially reflecting the changes proposed above.

'Employee turnover' is found to be associated with relationship vulnerability (Bendapudi and Leone, 2002). The link was initially mapped as 'employee turnover → customer loyalty (reverse)' considering 'relationship vulnerability' as part of loyalty

(reverse). But by grouping the relationship quality factors into one construct, the ‘relationship vulnerability’ should be included in relationship quality rather than loyalty. Therefore, the link was re-mapped as ‘employee turnover → relationship quality (reverse)’. Stock (2005) argues there is a negative correlation between customer satisfaction and ‘price sensitivity’. Although authors might not agree, ‘price sensitivity’ can be classified as part of loyalty based on the anecdotal evidence that a loyal customer tends to be less price-sensitive, while a highly price-sensitive customer tends to be less loyal, which is theoretically supported by the ‘Service-Profit Chain’ (Heskett et al., 1994). ‘Account effectiveness/performance’ is discussed by Birkinshaw et al. (2001) and Workman et al. (2003). In both studies, the variable is defined as a combination of relationship factors (e.g. long-term partnership with customer) and performance factors (e.g. meeting sales targets, cross-selling and sales growth). To make the elements of the model clear and precise, it would be reasonable to separate it into two — the former can be merged with ‘account management quality’ and the latter can be included in market/business performance (outcome) as ‘account performance’. ‘Supplier status’ presented by Frankwick et al. (2001) and Ulaga and Eggert (2006) can be considered as part of a loyalty — outcome rather than variable, because it is not only proved to have a direct impact on business performance (e.g. share-of-wallet) but also represents one specific feature of loyalty — extended purchase intention (Cannon and Homburg, 2001).

#### **4) Selection of interrelationships**

The following reported interrelationships were challenged to make the model more reasonable, straightforward and practically meaningful.

Johnson et al. (2001) argue that ‘acceptable alternative(s)’ is negatively associated with loyalty, which would be logical. Some authors, on the other hand, argue that it is negatively associated with supplier’s share-of-wallet (Brush and Rexha, 2007) or customer value (Walter et al., 2002). The former can be just common sense rather than findings considering the market factors of concentration and fragmentation, while the latter would be less convincing because the customer value would be assessed by individual customer/supplier interactions and may not be affected by market factors, such as acceptable alternative(s). Therefore, it was decided to take only the interrelationship claimed by Johnson et al. (2001) in the final model. Many authors (e.g.

Brush and Rexha, 2007; Homburg and Rudolph, 2001; Mentzer et al., 1997) found positive correlations between ‘supplier info-sharing’ and relationship quality factors, i.e. customer satisfaction, value and trust. Cannon and Homburg (2001), on the other hand, found a positive correlation between ‘supplier info-sharing’ and loyalty. The latter findings would be questionable. Considering the fact that the authors did not include any of the relationship quality factors in their survey, and applying the concept of the chain effect (relationship → loyalty → performance) discussed earlier, it can be argued that ‘supplier info-sharing’ indirectly affects loyalty through relationship quality factors. Homburg et al. (2007) found a positive correlation between ‘supplier’s customer orientation’ and supplier performance, while Frankwick et al. (2001) found a positive correlation between ‘supplier commitment/reputation’ and ‘supplier status’ (a part of supplier performance). With the same logic as above (considering the fact that the authors did not include any of the relationship quality factors in their survey, and applying the concept of the chain effect), it can be argued that ‘supplier’s customer orientation’ and ‘supplier commitment/reputation’ indirectly affect supplier performance through relationship quality factors and loyalty.

### **5) Separation of groups of variables**

The following three groups of variables were separated from other variables in the final model after considering their distinctive natures.

First, the service quality variables ('customer pre-expectation' and 'product/service performance') should be separated because they are industry-specific (Gounans, 2005; Li et al., 2006) and are considered to have an impact only on service quality. Second, the customer value variables ('perceived benefits' and 'perceived cost/price') should be separated considering the value equation: value = benefits – costs (Ulaga and Eggert, 2006). Finally, the following external and conditional factors should be separated, and then considered as overall influential factors because they are claimed to influence multiple variables and/or moderate interrelationships. Those factors and their influences in the studies are — (1) ‘Market dynamism’ on performance (Workman et al., 2003), (2) ‘Competitive intensity’ on performance (Workman et al., 2003), (3) ‘Availability of acceptable alternatives’ on loyalty (Johnson et al., 2001) and performance (Brush and Rexha, 2007), (4) ‘Relationship length’ on a market orientation gap (Deshpandé and

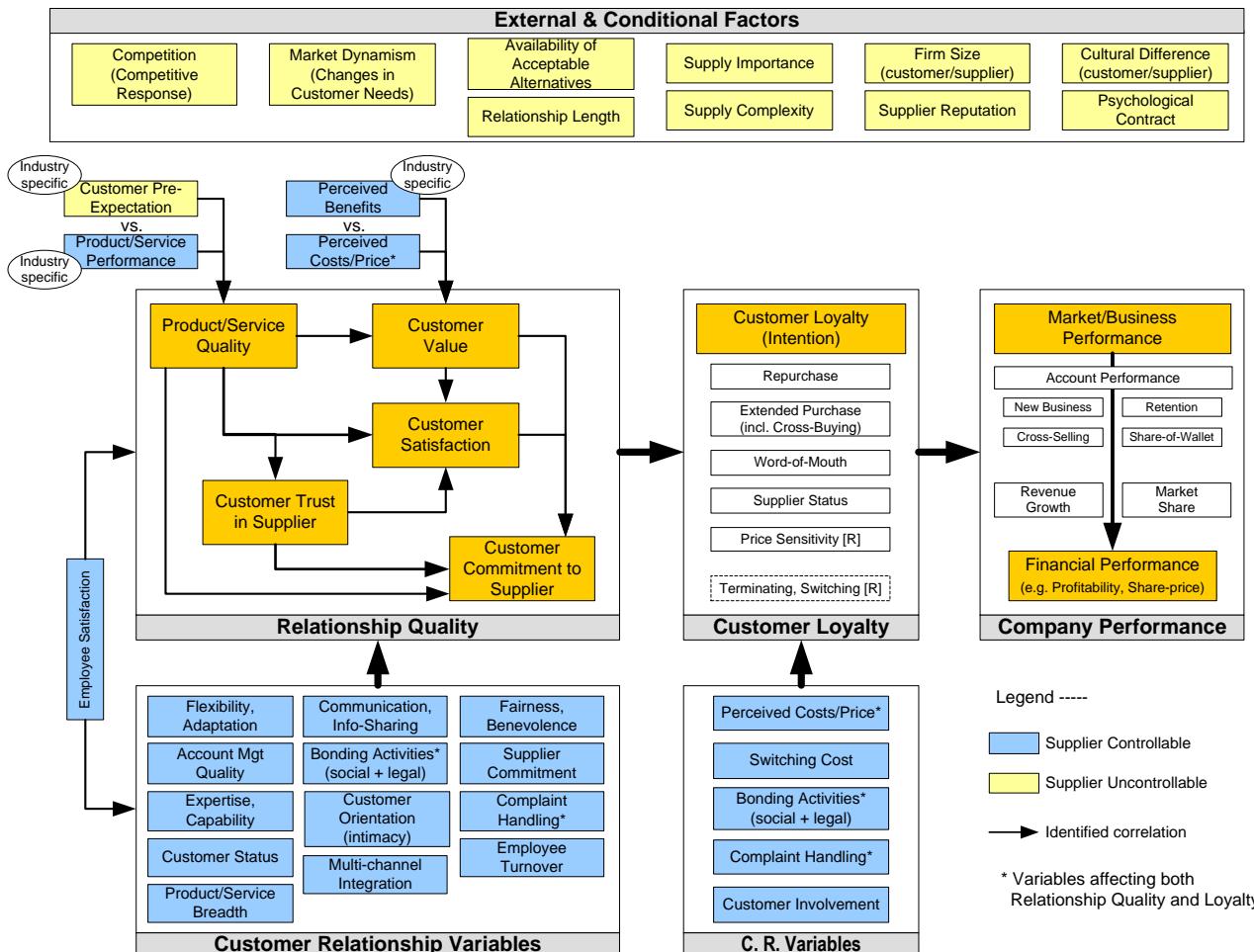
Farley, 2002) and ‘customer’s price sensitivity’/loyalty (Stock, 2005), (5) ‘Supply importance’ on perceived service quality and ‘customer price sensitivity’ (Patterson et al., 1997; Stock, 2005), (6) ‘Supply complexity’ on perceived service quality and ‘customer price sensitivity’ (Patterson et al., 1997; Stock, 2005), (7) ‘Firm size’ on perceived service quality, trust and loyalty (Doney and Cannon, 1997; Patterson et al., 1997; Wathne et al., 2001), (8) ‘Supplier reputation’ on customer value (Hansen et al., 2008) and ‘supplier status’/loyalty (Frankwick et al., 2001), (9) ‘Cultural difference’ on perceived service quality, customer value and commitment (Homburg et al., 2005) and (10) ‘Psychological contract’ on trust and commitment (Kingshott, 2006).

## **2. Final Proposal of the Literature-based Conceptual Model**

Taking all the discussions above into consideration, the literature-based conceptual model (**Ch-2 Figure 11**) has been developed, which indicates the link between customer relationship variables, external/conditional factors, relationship quality, customer loyalty and company performance:

- It is not a company’s internal factors alone but complex systems that determine its business performance. Among other things, customer relationship is supposed to have a significant impact on performance through some kind of chain effect.
- Supplier’s customer relationship management activities — Marketing & Sales activities/quality (e.g. communication/info-sharing, account management quality, cost/price), Operations capabilities/performance (e.g. service performance, flexibility/adaptation) and people issues (e.g. employee satisfaction and turnover) — have a direct positive/negative effect on perceived relationship quality.
- The relationship quality factors (perceived product/service quality, customer value, trust in supplier, satisfaction and commitment to supplier) are related to each other and drive customer loyalty (i.e. customer’s intention to continue or expand business with the supplier) that is also directly affected by some of the customer relationship variables (e.g. switching cost, product/service breadth).
- The correlations above are not only determined by the trading parties but also positively/negatively influenced by the external factors (e.g. competitive response, market dynamism, availability of acceptable alternatives) and the conditional factors (e.g. supply complexity/importance, cultural differences).

- Customer loyalty, as a result, affects a supplier firm's business performance (e.g. share-of-wallet, market share and profitability) which directly influences its financial performance (e.g. profitability and share price).



**Ch-2 Figure 11: Literature-based Conceptual Model**

## VII. CONCLUSION

The aim of the systematic review was to build a knowledge foundation of customer-supplier relationships focusing on the factors that affect customer's perceptions and reactions (customer's view) and elements of customer relationship management activities that impact on winning and retaining businesses (supplier's view) in 'business as usual' conditions. The questions asked to the literature in this study were as follows:

- A) Customer's view — What are the key factors that affect customer's perceptions and reactions in a business-to-business setting?

B) Supplier's view — What are the key elements of customer relationship management activities that impact on a firm's business performance in a business-to-business setting?

Since all the papers are from outside my original research field of M&A, their background information and key findings were carefully documented. By critically reviewing the papers, key variables (from 78 to 50 and finally down to 31) and interrelationships were selected, which were then visualized as the literature-based model. It required much more time and energy than initially thought to build a model through the literature, but in the end it was rewarding. The model can navigate the author in the right direction not only for the next step (Project-2) but also toward the end of the DBA journey.

## **1. Knowledge Contribution**

This review focused on key findings from ten years of empirical studies in the customer relationship management field, in a B2B setting. As its end product, the literature-based causal map (**Ch-2 Figure 9**) and conceptual model (**Ch-2 Figure 11**) have been developed, which indicate the factors that affect customer's perceptions/reactions (customer's view) and the elements of customer relationship management activities that impact on winning and retaining business (supplier's view). Put another way, the model indicates the link between customer relationship variables, external/conditional factors, relationship quality, customer loyalty and company performance, under 'business as usual' conditions.

To summarise, this study contributes to the advancement of the customer relationship management literature by synthesizing fragmented knowledge into a conceptual model, both from customers' and suppliers' viewpoints.

## **2. Managerial Implications**

The key factors in the conceptual model (**Ch-2 Figure 11**) can be used as a scorecard to monitor relationship strength with important customers. Once some relationship issues are identified, one can take appropriate actions by focusing on some

of the 20 supplier controllable variables, which would certainly lead to relationship improvement. In the case of requiring a pin-point action, one can refer to the integrated causal map (**Ch-2 Figure 9**) and single out the most significant variable(s) that affects a relationship quality factor in a problem.

### **3. Limitations**

Despite the utmost care taken at every stage of the systematic review, there would be several limitations in this study. First, there may be missing key papers (most likely unpublished ones) that discuss different aspects, thus different implications. Second, many variables were grouped into one when building the causal maps in spite of knowing that their definitions were slightly different. This might cause misinterpretation of their interrelationships. Furthermore, there may be limitations in the literature, although most of them are highly qualified papers. As discussed in the results section, the majority of studies present causal models based on their hypotheses, which are supported by sophisticated statistical methods/techniques. However, one could still argue opposite directions of the causations. A correlation between fairness and satisfaction can be a good example. One would claim [fairness → satisfaction]: supplier's fair treatment leads to customer satisfaction, but another could potentially interpret [satisfaction → fairness]: satisfied customer perceives supplier's treatment as fair. Finally, although anecdotal evidence suggests that there is a time lag between customer perception and reaction, the time dimension issue is, in general, not well documented. This can be a fruitful area for further research.

## Appendix A: Data Extraction Summary (ID No. 3 – 124)

ID	Author	Year	Title	Journal	Model	SRQ	Qual	Research field	Outcomes	Variables-1	Variables-2	Industry (market)	Org. type	No. samples	Res. rate	Supplier	Rep.-1	Rep.-2	Collection Method	Analysis		
3	Bennett et al	2005	Satisfaction as a moderator of involvement and commitment on brand loyalty in business-to-business setting	Industrial Marketing Management	B2B	a	2.0	Loyalty	Loyalty (repurchase intention, Wom)	Satisfaction, involvement, relationship-length (experience)		Advertising	AU	SMEs	237	21%	Multiple	Customers Owners and managers	Questionnaire survey	Questionnaire SEM		
15	Frankwick et al	2007	Dynamics of Relationship Selling: A Longitudinal Examination of Changes in Salesperson-customer Relationship Status	Journal of Personal Selling & Sales Management	B2C	b	2.0	Customer-relation (MP+)	MKT performance (SoW, cross-selling)	Supplier status	Supplier commitment, corporate support, supplier reputation	Financial services	US (?)	Consumers	L-firms	1st: 311, 2nd: 359	Multiple	Customers Insurance policyholders	Questionnaire survey	Questionnaire ANOVA		
22	Homburg et al	2007	Responsiveness to Customers and Competitors: The Role of Affective and Cognitive Responses	Journal of Marketing	MIX	b	2.9	Other	Profitability, MKT performance (growth, market share)	<b>Responsiveness to changes</b> (customer orientation, competitive responsiveness)	Cognitive system, affective system	Various	n/a	n/a	L-firms + SMEs	280	17%	Multiple	Suppliers MKT managers	Questionnaire survey	Questionnaire SEM	
24	Kamakura et al	2002	Assessing the Service-Profit Chain	Marketing Science	B2C	b	2.9	Chain effects	Loyalty, MKT performance (retention)	<b>Product/service quality</b>	Financial services	BR	Consumers	L-firm	5,055	10 per branch	Single	Customers	n/a	Questionnaire survey	Questionnaire SEM	
53	Usagi & Eggert	2006	Value-Based Differentiation in Business Relationships: Gaining and Sustaining Key Supplier Status	Journal of Marketing	B2B	b	2.9	Customer value	Customer value/benefits, cost/prices	<b>Customer dependency</b>	Core sourcing and operation benefits, Direct, acquisition and delegation costs	Manufacturing	US	L-firms + SMEs	400	21%	Multiple	Customers Purchasing managers	Unstructured interview + Survey	Grounded theory +PLS OLS regression modeling		
57	Burkinaisaw et al	2001	Global Account Management in Multinational Corporations: Theory and Evidence	International Business Studies	B2B	b	2.6	Account management	Employee turnover	<b>Employee turnover</b>	Various	SE, UK, other	n/a	L-firms	35 interviews + 106	70%	Multiple	Suppliers Key Account Mgrs	Unstructured interview + Grounded theory	Unstructured interview + Grounded theory		
59	Bendapudi & Leone	2002	Managing business-to-business customer relationships following key contact employee turnover in a vendor firm	Journal of Marketing	B2B	b	2.8	Loyalty (vulnerability)				Various	World	L-firms + SMEs	72 (focus group), 47 (interview), 83 (survey)	n/a	Multiple	Suppliers * Key contact Customers employees/purchasing mgrs	Unstructured interview + Grounded theory	Unstructured interview + Grounded theory		
60	Caceres & Papadomatis	2007	Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty	European Journal of Marketing	B2B	a	2.7	Relationship quality +	Loyalty (continuity intention, Wom)	<b>Trust, commitment, satisfaction</b>	Product/service quality (what, how)	Advertising	EU	L-firms + SMEs (?)	234	30%	Multiple	Customers	n/a	Questionnaire survey	Questionnaire SEM	
61	Canion & Homburg	2001	Buyers-supplier relationships and customer firm costs	Journal of Marketing	B2B	b	2.9	Loyalty	Loyalty (expand purchase intention)	<b>Product/service performance</b>	Product/service quality, cost/prices	Direct, acquisition and operation costs	Industrial manufacturing	DE & US	L-firms + SMEs (?)	529	36%	Multiple	Customers Purchasing managers	Questionnaire survey	Questionnaire SEM	
63	Fynes & Voss	2002	The moderating effect of buyer-supplier relationships on quality practices and performance	International Journal of Operations & Production Research	B2B	b	2.0	Satisfaction + Service quality		<b>Quality improvement</b>	Electronics manufacturing	IE	n/a	L-firms + SMEs	202	38%	Multiple	Suppliers Quality/OPS managers	Questionnaire survey	Regression analysis		
64	Gounaris	2005	First and commitment influences on customer retention: Insights from business-to-business services	Journal of Business Research	B2B	a	2.0	Relationship quality + Loyalty	Loyalty (continuity intention, customer investment)	<b>Affective commitment, calculative commitment</b>	Info-sharing/communication, flexible, productservice quality, physical closeness, alternative search	Consulting	GR	SMEs (?)	127	45%	Multiple	Customers	n/a	Questionnaire survey	Questionnaire SEM	
68	Johnson et al	2001	The strategic role of the salesperson in reducing customer defection in business relationships	Journal of Personal Selling & Sales	B2B	a	2.5	Relationship quality *	Loyalty (=> switching intention)	Fairness, satisfaction, commitment, switching cost, alternatives	Industrial manufacturing (?)	US (?)	SMEs	L-firms	844	28%	Single	Customers Purchasing managers	Questionnaire survey	Questionnaire SEM		
70	Menitzer et al	1997	Application of the means-end-value hierarchy model to understanding logistics service value	International journal of physical distribution & logistics	B2B	a	2.2	Customer value (means-end hierarchy)		<b>Attributes</b>	Public sector	Gov. agent	13 focus groups	n/a	Single	Customers	n/a	Unstructured interview	n/a	n/a		
72	Patterson et al	1997	Modelling the determinants of customer satisfaction or business-to-business professional services	Journal of Academy of Marketing Science	B2B	a	2.8	Relationship quality *	Loyalty (repurchase intention, Wom)	<b>Satisfaction</b> , product/service quality (disconfirmation), fairness, quality (disconfirmation), fairness, completeness, stakeholding, uncertainty	Novelty, supply importance, supply uncertainty	Consulting	AU (?)	Gov. agent	L-firms + SMEs	128	62%	Multiple	Customers	n/a	Questionnaire survey	Regression analysis
73	Rauynen & Miller	2001	Relationship quality as a predictor of B2B customer loyalty	Journal of Business Research	B2B	a	2.5	Relationship quality *	Loyalty (repurchase intention, Wom)	<b>Trust, affective commitment, satisfaction, Product/service quality</b>	Product/service quality	Logistics	AU	SMEs	L-firms + SMEs	306	4%	Multiple	Customers	n/a	Questionnaire survey	Questionnaire SEM
83	Lam et al	2004	Customer Value Satisfaction, Loyalty, and Switching Costs: An Illustration From a Business-to-Business Services Context	Journal of the Academy of Marketing Science	B2B	a	2.8	Relationship quality *	Loyalty	<b>Satisfaction</b>	Customer value, switching cost	Logistics	SG or AP (?)	L-firm	234	8%	Single	Customers	n/a	Questionnaire survey	Questionnaire SEM	
91	Parasuraman et al	1988	A conceptual model of service quality and its implications for future research	Journal of Marketing	B2C	a	2.6	Satisfaction + Service quality	<b>Product/service quality</b>	Pre-expectation, post-perception/performance	10 determinants (access, communication, competence...)	Various	US	Consumers	L-firms	14 interviews + 12 focus groups	n/a	Multiple	Suppliers + Customers	Unstructured interview	n/a	Questionnaire SEM
97	Heskett et al	1994	Putting the service-profit chain to work	Harvard Business Review	MIX	b	2.4	Chain effects	Profitability, MKT performance (growth)	<b>Loyalty</b> Continuity intention, repurchase intention, Wom, satisfaction, product/service quality	Employee retention, productivity, Service and satisfaction, Internal quality	Service	US (?)	n/a	L-firms (?)	n/a	n/a	Multiple	Suppliers	n/a	n/a	n/a
98	Rust et al	1996	Return on quality (ROQ): Making service quality financially accountable	Journal of Marketing	MIX	b	2.5	Chain effects	<b>Profitability, MKT performance (growth, intention)</b>	<b>Satisfaction, product/service quality</b>	<b>Quality improvement</b>	Hotel (empirical part)	US (?)	Consumers	L-firms	n/a	n/a	n/a	n/a	n/a	n/a	n/a
106	Abdul-Malihin	2006	Instrumental and interpersonal determinants of relationships satisfaction and commitment in a Business-to-Business Environment	Journal of Business Research	B2B	a	2.0	Relationship quality *	<b>Commitment, satisfaction</b>	Product/service quality, benevolence, trust	Industrial manufacturing	Saudi Arabia	SMEs	L-firms	282	51%	Multiple	Customers Purchasing managers	Questionnaire survey	Questionnaire SEM		
109	Bruun & Frommeyer	2003	Constructs Over Time Antecedents and Consequences of Customer Satisfaction in a Business-to-Business Environment	Journal of International Marketing	B2B	a	2.0	Satisfaction + Service quality	<b>Relationship quality (trust, familiarity)</b>	Product/service quality	Information technology	CH	n/a	n/a	1999-113, 2001-107, 2001-120	38%, 40%	Multiple	Customers	n/a	Questionnaire survey	Questionnaire SEM	
110	Brush & Reina	2007	Factors Influencing Supplier Share Allocations in an Overseas Chinese Context	Journal of Relationship Marketing	B2B	b	2.9	Other	<b>Market orientation (gap)</b>	Product/service quality, trust, alternatives	Adaptation, supplier initiative, info-sharing/communication (signaling, disclosing)	Manufacturing	JP, FR, UK, DE & US	L-firms	148 dyads (592 resp.)	187	74%	Multiple	Suppliers + MKT mngs	Questionnaire survey	Discipline statistics	
114	Deshpande & Fahey	2002	Looking at Your World Through Your Buyer-Seller Alliances	Journal of Marketing	B2B	a	2.3	Other	<b>Market orientation</b>	Relationship-length, supply importance, cultural difference	Complaint handling	Various	DE (?)	L-firms + SMEs	n/a	n/a	Multiple	Suppliers + Customers	n/a	Questionnaire survey	Questionnaire SEM	
122	Homburg & Furst	2005	How Organizational Complaint Handling Drives Customer Loyalty: An Analysis of the Mechanistic and the Organic Approach	Journal of Marketing	MIX	b	2.9	Loyalty (continuity intention)	Satisfaction, complaint-satisfaction, complaint handling fairness	Product/service quality, trust, action, feasibility, supplier commitment	Industrial manufacturing	DE & US	L-firms	110 dyads	n/a	n/a	Multiple	Suppliers + Customers	n/a	Questionnaire survey	Questionnaire SEM	
124	Homburg et al	2005	Determinants of Customer Benefits in Business-to-Business Markets: A Cross-Cultural Comparison	Journal of International Marketing	B2B	a	2.9	Customer value	<b>Customer value/benefits</b>	Product/service quality, trust, action, feasibility, supplier commitment	Industrial manufacturing	DE & US	L-firms	981	21%	Multiple	Suppliers	Purchasing managers	Questionnaire survey	Questionnaire SEM		

## Appendix B: Data Extraction Summary (ID No. 125 – 191)

ID	Author	Year	Title	Journal	Model	SR-QI	Qual	Research field	Outcomes	Variables-1	Variables-2	Industry (market)	Geo. Scope (Cust.)	Org. type (Sup.)	No. samples	Resp. rate	Supplier	Resp.-1	Resp.-2	Collection Method	Analysis		
125	Homburg & Burdögh	2001	Customer satisfaction in industrial markets: Dimensional and multiple role issues	Journal of Business Research	B2B	a	2.8	Satisfaction + Service quality	Product/service quality, account quality, info-sharing, communication, interaction quality, order & complaint handling, interaction quality	Various (retail), Industrial Venues	EU	L-firms + SMEs	L-firms	75 interviews	n/a + 32%	Single	Customers Purchasing, manufacturing managers	Purchasing, manufacturing managers	Semi-structured interview + Survey	SEM			
127	Homburg & Stock	2004	The Link Between Salespeople's Job Satisfaction and Customer Satisfaction in a Business-to-Business Context: A Dynamic Factors associated with customer willingness to refer leads to salespeople	Journal of the Academy of Marketing Science	B2B	a	2.9	Satisfaction + Service quality	<b>Satisfaction</b>	<b>Employee satisfaction</b>	Satisfaction, conflict, trust	Business services	US (?)	L-firms + SMEs	L-firms + SMEs (?)	n/a	n/a	Multiple	Suppliers + Salespeople + Customers Key contacts	Suppliers + Salespeople + Customers Key contacts	Questionnaire survey	SEM	
128	Johnson et al	2003	Business-to-Business Context: A Dynamic Impact of Customer Satisfaction on Share-of-Wallet in a Business-to-Business Environment	Journal of Service Research	B2B	b	2.0	Loyalty	<b>Satisfaction lead</b>	<b>Relationship appraisal</b>	Interaction quality, internal support	Business services	US (?)	L-firms	406	40%	Multiple	Customers Purchasing managers	Customers Info Mgt., Product, purchasing managers	Questionnaire survey	SEM		
129	Keenaghan et al	2003	The Impact of Customer Satisfaction in a Multi-Level Environment	Journal of Personal Selling & Sales Management	B2B	b	2.1	Satisfaction + Service quality	<b>MKT performance (SoW)</b>	<b>Satisfaction, trust, expertiseability</b>	Interaction quality, internal support	Business services	US (?)	L-firms	348	n/a	Single	Customers Info Mgt., Product, purchasing managers	Customers Key contacts	Questionnaire survey	SEM		
133	Liu & Leach	2001	Developing loyal customers with a value-adding sales force: Examining customer satisfaction and the perceived credibility of consultative selling	Journal of Business Research	B2B	b	2.6	Account management	<b>MKT performance (SoW)</b>	<b>Multi-channel integration, Referral, physical closeness</b>	Interaction quality, internal support	Business services	US	L-firms + SMEs	L-firms	169	23%	Multiple	Customers Info Mgt., Product, purchasing managers	Customers Key contacts	Questionnaire survey	SEM	
134	Makridis et al	2007	Determinants of Customer Satisfaction in a Multi-Level Total Quality Channel B2B Environment	Journal of Business Excellence & Research	B2B	b	2.0	Satisfaction + Service quality	<b>Satisfaction</b>	<b>Product/service quality</b>	Adaptation, supplier commitment, supplier trust	Information technology/system	UK	SMEs	L-firms	579	26%	Multiple	Customers n/a	Customers n/a	Questionnaire survey	Regression analysis	
136	Money	2004	Word-of-mouth promotion and switching behavior in Japanese and American business-to-business service clients	European Journal of Marketing	B2B	b	2.0	Other	<b>MKT performance (SoW switching)</b>	<b>Joint action, info-sharing, communication, customer orientation (closerness)</b>	Industrial, supplier commitment, manufacturing & distribution	Information technology/system	US	n/a	L-firms + SMEs	US	178	23%	Multiple	Suppliers n/a	Suppliers n/a	Questionnaire survey	SEM
138	Nelson	1989	An empirical examination of the role of "openness" in industrial buyer-seller relationships	Baltic Journal of Management	B2B	a	2.0	Account management	<b>Profitability, MKT growth, market share</b>	<b>Commitment, customer value/benefits, trust</b>	Adaptation, supplier commitment, customer orientation	Information technology/system	FR (?)	n/a	L-firms + SMEs	L-firm (?)	234	n/a	Single	Customers n/a	Customers n/a	Questionnaire survey	ANOVA
139	Palma & Aunsesvicene	2007	Modelling relationship quality in the parcel delivery services market	Journal of Business-to-Business Markets?	B2B	a	1.8	Relationship (coupe) quality + Loyalty	<b>Loyalty (WofL)</b>	<b>Satisfaction</b>	Information technology/system	Logistics	LT (?)	L-firms + SMEs	L-firm	200	27%	Single	Customers Purchasing managers	Customers Purchasing managers	Questionnaire survey	SEM	
145	Papamplatzis & Papamplatzis	2004	Service quality and marketing performance in business-to-business markets: exploring the mediating role of client satisfaction	European Journal of Marketing	B2B	a	2.0	Relationship (coupe) quality + Loyalty	<b>Loyalty (continuity intention, WofL)</b>	<b>Satisfaction</b>	Information technology/system	Information technology/system	FR (?)	n/a	L-firms + SMEs	L-firm (?)	234	29%	Single	Customers Purchasing managers	Customers Purchasing managers	Questionnaire survey	SEM
147	Selnes & Gohberg	2000	Effects of Supplier Reliability and Benevolence in Business Marketing	Journal of Business Research	B2B	a	2.0	Relationship (coupe) quality + Loyalty	<b>Loyalty (SoW allocation, continuity intention, WofL)</b>	<b>Satisfaction, negative effect, positive effect</b>	Tele-communication	No (?)	n/a	L-firm (?)	150	60%	Single	Customers Purchasing managers	Customers Purchasing managers	Questionnaire survey	SEM		
153	Stock	2005	Can Customer Satisfaction Decrease Price Sensitivity in Business-to-Business Markets?	Journal of Business-to-Business Marketing	B2B	a	2.8	Satisfaction + Service quality	<b>Price sensitivity</b>	<b>Trust, benevolence</b>	Tele-communication	Various	DE (?)	L-firms + SMEs	L-firms (?)	111	17%	Multiple	Suppliers + Salespeople + Customers Key contacts	Suppliers + Salespeople + Customers Key contacts	Questionnaire survey	SEM	
157	Venelin & Ghauri	2004	Service quality and customer retention: building long-term relationships	European Journal of Marketing	B2B	a	2.1	Relationship quality + Loyalty	<b>Loyalty (continuity intention)</b>	<b>Affective commitment, calculative commitment</b>	Bonding, trust, product/service quality	Advertising	NL	L-firms + SMEs	L-firms (?)	n/a + 241	22%	Multiple	Customers MKT managers	Customers MKT managers	Structured interview + Survey	SEM	
160	Woo & Einew	2004	Business-to-business relationship quality: An IMP interaction-based conceptualization and measurement	European Journal of Marketing	B2B	a	2.8	Customer-relation (IMP+)	<b>Loyalty (continuity intention, WofL)</b>	<b>Satisfaction, product/service quality (availability, responsiveness, reliability, completeness, professionalism)</b>	Relationship quality/cooperation, adaptation, atmosphere	Consulting, engineering	HK	Gov. agent	SMEs	98	36%	Multiple	Customers Senior Mkt. engineers (secretaries)	Customers Senior Mkt. engineers (secretaries)	Structured interview + Survey	SEM	
164	Li et al	2006	A comparison study of customer satisfaction between the UPS and FedEx	Industrial Management & Data Systems	B2B	a	1.5	Satisfaction + Service quality	<b>Product/service quality (availability, responsiveness, reliability, completeness, professionalism)</b>	<b>Product/service quality (availability, responsiveness, reliability, completeness, professionalism)</b>	Logistics	US	University	L-firms	181	25%	Single	Customers Users (secretaries)	Customers Users (secretaries)	Questionnaire survey	Descriptive statistics		
168	Workman, Horning et al (edit.)	2003	Intraorganizational determinants of key account management effectiveness	Journal of the Academy of Marketing Science	B2B	b	2.8	Account management	<b>Profitability, MKT market share</b>	<b>Accounting effectiveness</b>	Intensity, proactiveness, team resource	Various	DE & US	n/a	L-firms + SMEs	US	385	23%	Multiple	Suppliers Sales managers	Suppliers Sales managers	Questionnaire survey	SEM
171	Hakansson	1982	International Marketing and Purchasing of Industrial Goods	Boot (Chr., Interaction Approach)	B2B	a	2.8	Customer-relation (IMP+)	<b>Interaction quality</b>	<b>Interaction process, parties, environment, atmosphere</b>	Relationship quality, communication	Various	EU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Questionnaire survey	SEM
173	Caron & Perreault	1999	Buyer-seller relationships in business markets	Journal of Marketing Research	B2B	a	2.9	Customer-relation (IMP+)	<b>Satisfaction, performance evaluation</b>	<b>Alternatives, market dynamism, supply importance, supply complexity</b>	Alternatives, market dynamism, operational linkage, bonding, cooperation forms, adaptation (customer, supplier)	Tele-communication	EU or NO (?)	L-firms + SMEs	L-firms	443	23%	Multiple	Customers Purchasing managers	Customers Purchasing managers	Questionnaire survey	SEM + Hierarchical clustering	
176	Hansen et al	2008	Customer perceived value in B2B service corporate reputation	Industrial Marketing Management	B2B	a	2.0	Customer value	<b>Customer value</b>	<b>Supplier reputation, information sharing/communication, flexibility</b>	Product/service quality, account management, switching cost	High-end copier	EU	n/a	L-firms + SMEs	L-firms	284	n/a	Multiple	Customers Purchasing managers	Customers Purchasing managers	Questionnaire survey	SEM
180	Ruyter et al	2001	Antecedents of Commitment and Trust in Customer-Supplier Relationships in High Technology Markets	Proceedings of the 18th IMP Conference	B2B	a	2.7	Relationship quality + Loyalty	<b>Loyalty (continuity intention)</b>	<b>Affective commitment, calculative commitment, trust</b>	Product/service quality, account management, switching cost	Industrial manufacturing	n/a	L-firms + SMEs	L-firms	54 interviews + 491	34%	Multiple	Customers Purchasing managers	Customers Purchasing managers	Structured interview + Survey	SEM	
181	Weller et al	2002	Relationship junctions and customer trust as value creators in relationships	Journal of Marketing	B2B	a	2.1	Customer-relation (IMP+)	<b>Customer value</b>	<b>Trust</b>	Product/service quality, account management, switching cost	Exports/ability	Various	US	n/a	L-firms	303	41%	Multiple	Suppliers + Salespeople	Suppliers + Salespeople	Questionnaire survey	SEM
183	Sengupta et al	2000	An empirical investigation of key account salesperson effectiveness	Journal of Personal Selling & Sales Management	B2B	b	2.0	Account management	<b>Accounting effectiveness</b> (relationship quality)	<b>Trust (company, salespeople)</b>	Supplier size, adaptation, expertise ability, account right quality	Industrial manufacturing & distribution	US	L-firms + SMEs	L-firms	176	33%	Multiple	Suppliers Key Account Mgrs	Suppliers Key Account Mgrs	Questionnaire survey	SEM	
187	Doney & Cannon	1991	An examination of the nature of trust in buyer-seller relationships	Journal of Marketing	B2B	a	2.9	Relationship quality + Loyalty	<b>MKT performance (purchase decision, loyalty/repurchase decisions)</b>	<b>Psychological contract, customer commitment, trust</b>	Supplier size, adaptation, expertise ability, account right quality	Automotive parts	AU	n/a	L-firms	210	31%	Multiple	Customers Purchasing managers	Customers Purchasing managers	Questionnaire survey	SEM	
190	Kingshort	2005	The impact of psychological contracts upon trust and commitment within supplier-buyer relationships. Investigating the importance of corporate reputation	Journal of Marketing	B2B	a	2.4	Customer-relation (IMP+)	<b>Psychological contract, customer orientation</b>	<b>Bonding, switching cost, cost/price, product breadth</b>	Financial services	n/a	L-firms + SMEs	L-firms	37/supplier, 114/customer	95%, 20%	Multiple	Suppliers Distributor	Suppliers Distributor	Questionnaire survey	SEM		
191	Walton et al	2001	Choice of Supplier in embedded markets	Journal of Marketing	B2B	b	2.9	Loyalty	<b>Loyalty (switching intention)</b>	<b>Trust</b>	Product/service quality, account management, switching cost	Key Account Mgrs + General mngs (sales)	n/a	L-firms + SMEs	L-firms	n/a	n/a	n/a	n/a	n/a	Structured interview + Coding scheme + Regression	SEM	

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# Chapter 3

## Project-2: Empirical Research

### The Impact of Post-M&A Integration on Merging Parties, Customer Relationship and Loyalty

— A case study of multi-business mergers and integration in Europe —

Panel Chair: Prof. Mark Jenkins

Lead Supervisor: Dr. Richard Schoenberg

Panel Member: Dr. Emma Parry, The late Dr. Joe Jaina

Conducted between October 2008 and October 2009

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## ABSTRACT

The aim of this study was to empirically investigate the impact of post-M&A integration on merging parties and their customers, focusing particularly on the key factors and mechanisms. This was undertaken in a logistics company ('the case-study organisation') that carried out a series of major acquisitions that underwent full integration between 2003 and 2005.

Explanatory case study methodology was adopted as the research approach. Semi-structured interviews were conducted with 20 supplier KAMs and 20 customers using the adjusted Q-sorting technique to collect both quantitative and qualitative data. The interviews were supplemented with confidential and public-domain company data as well as industry/financial documentation.

The findings highlight the importance of a set of critical customer relationship variables affected by the post-M&A integration and suggest potential underlying mechanisms through which these variables were affected. This study contributes to the advancement of the research field by indicating the impact of post-M&A integration on merging parties as well as their customer relationship and loyalty, which in turn affects their business performance. Contributions to practice and methodological development, as well as limitations and implications for future research, are also presented.

## I. INTRODUCTION

### 1. Aim of the Study

The aim of this study was to empirically investigate the impact of post-M&A integration on merging parties and their customers, focusing particularly on the key factors and mechanisms through a dedicated field study. This was carried out based on a knowledge foundation of customer-supplier relationships under ‘business-as-usual’ conditions, gained through the systematic review (Project-1).

### 2. The Research Host Organisation

This research was undertaken in a logistics company that carried out a series of major acquisitions between 1997 and 2005, and as a result, a global logistics conglomerate was formed. The acquisitions were characterised by the following organisations involved in the activities:

- **Company-X:** a merged organisation consisting of X1, X2, X3 and X4.
  - **X1:** a former international premier service provider.
  - **X2:** a former standard service provider consisting of 20 local companies in Europe.
  - **X3:** Former pan-European standard service provider.
  - **X4:** Former standard service provider in the USA.
- **Company-Y:** a holding company of the Company-X group.

The focus in this study was given to the acquisitions in Europe, which underwent full integration of the three separate business units (X1, X2 and X3) between 2003 and 2005.

### 3. Overall Research Problem and Limitation of the Literature

The physical integration took two and a half years due to its complexity. Unlike the common integration of two companies, the integration needed to build a solid blueprint for most business functions from scratch, including systems, structures and processes, followed by execution of the plan for 22 different companies across Europe almost simultaneously.

During the tough integration period (2003 – 2005), Company-X recorded worse-than-expected business performance in Europe for three consecutive years. Although the organisation finally showed a sign of recovery from the fourth year (2006), the issues above were very serious; it lost substantial amount of money during the integration. The situation above can be explained as ' $1 + 1 < 2$ ' (opposite to the synergy equation), which drove the author to begin the research with a simple question — what are the key factors that (negatively) affect post-M&A business performance? Conventional business wisdom suggests that one of the key factors would be customer reactions (i.e. increase or decrease in business with the supplier). But a question still remained — what are the key variables that (negatively) influence customer reactions and why/how?

M&As effects on customer–supplier relationships are popular topics in the practitioner journals, for instance, M&As deliver no benefits to customers (Sikora, 2005), create employee uncertainty, low level of morale/productivity and customers' fears for service disruptions (Clemente and Greenspan, 1997) drive salesforce dissatisfaction, customers uncertainty and competitive attacks (Bekier and Shelton, 2002). However, since they do not disclose their key research data, it is not possible to investigate or further develop their findings from an academic research point of view.

From academic papers, M&A-integration and performance studies indicate issues in salesforce redeployment (Capron and Hulland, 1999), importance of customer orientation and customer retention (Homburg and Bucerius, 2005) and complex nature of speed of integration in the Marketing & Sales function (Homburg and Bucerius, 2006). Those are frequently cited papers in this field, however, since they do not explicitly study the customer-supplier relationship issues, one cannot get further insights about the issues from them. Recent studies demonstrate a positive correlation between perceived customer value and acquisition success (Dalziel, 2007) and that between integration process performance, customer retention, overall acquisition performance and (long-term) financial/accounting performance (Zollo and Meier, 2007). The indicated causal relationships are noteworthy but one cannot know why and how M&A/integration impacts customer relationships.

M&A-integration and business network studies indicate that customer's negative reactions to M&A/integration are influenced by unexpected M&A/integration effects

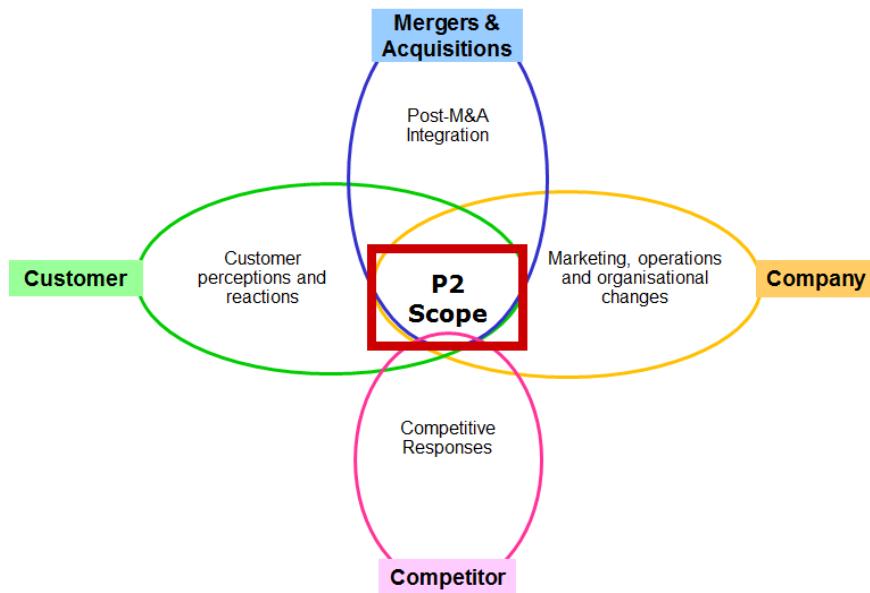
(Anderson et al., 2001), price increase, inconsistency in supply and limited choices (Anderson et al., 2003b), changes in interaction, function and operational procedures (Tunisini and Bocconcetti, 2005), supplier's commitment, trustworthiness and price increase (Havila and Salmi, 2000). Furthermore, customer's unfavourable or unprecedented reactions make acquirers hard to achieve expected synergy effects (Öberg, 2008). Their findings are insightful but since most of them are exploratory case studies and none of them shows potential structural/causal mechanisms, one cannot see a holistic picture of the impact M&A/integration on customer relationships.

To summarise, the existing literature provides many facts/arguments about the impact of M&A/integration on customer-supplier relationships, however, it does not provide satisfactory solutions to the overall research problem — what are the key variables that (negatively) influence customer reactions and why/how?

## II. RESEARCH SCOPE

### 1. Research Field

The post-M&A environment makes an organisation vulnerable internally and externally due to uncertainty spreading among people (management and employees), suppliers and customers, which fosters competitive attacks (Haspeslagh and Jemison, 1991). Although Cannon and Perreault (1999) argue the importance of taking a multi-disciplinary approach for the business relationship study, considering the research problem mentioned above, richness of the literature in each field and feasibility within the defined time frame, it was decided to focus on 'M&A' (post-M&A integration), 'Customer' (perceptions and reactions) and 'Company' (marketing, operations and organisational changes) as the research domain, while 'Competitor' (competitive responses) as part of the customer relationship elements (**Ch-3 Figure 1**).



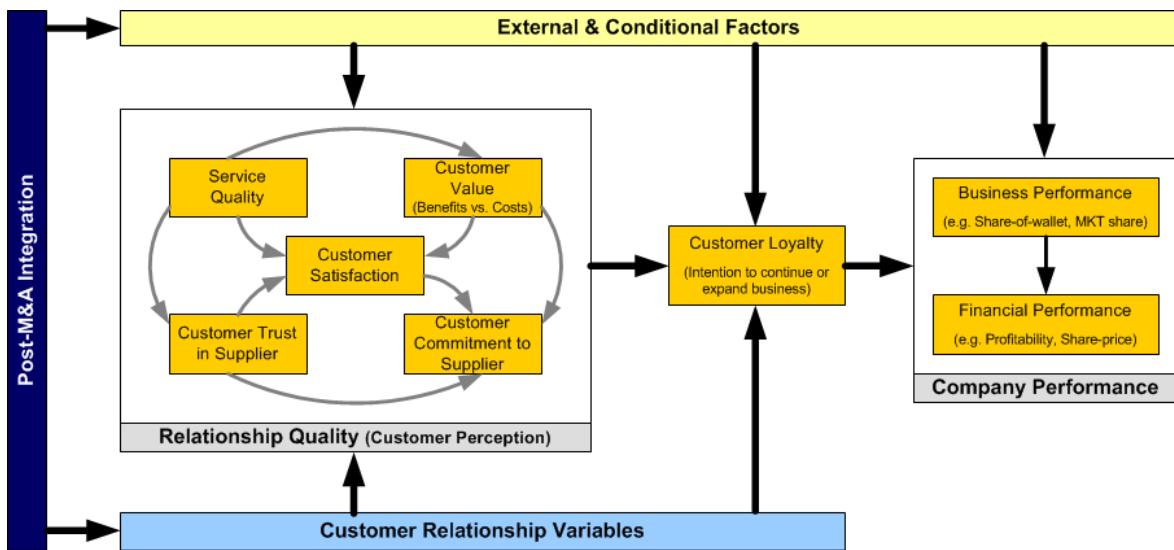
**Ch-3 Figure 1: Research Field Mapping (Project-2)**

## **2. Overall Research Proposition**

Miles and Huberman (1994, as referred in Sobh and Perry, 2006) suggest developing a conceptual framework about underlying structures based on the literature prior to the field study, while Yin (2003) suggests clarifying the research propositions on which the research objective/design is based. This study followed their advice and structured the research design.

This study is based on the conceptual framework (**Ch-3 Figure 2**) derived from the systematic literature review (Project-1) with the following research propositions:

- There is a particular set of customer relationship variables that would strongly influence relationship quality and customer loyalty in the logistics industry,
- Post-M&A integration would negatively/positively affect the key customer relationship variables and external/conditional factors,
- When the key customer relationship variables and external/conditional factors are negatively/positively impacted, relationship quality and loyalty would also be negatively/positively impacted and as a result business performance would be negatively/positively impacted.



**Ch-3 Figure 2: Conceptual Framework in This Study**

### **3. Research Question**

Based on the research propositions above, the following research questions were explored in this study:

- 1) How was the business performance of Company-X in Europe during its integration period compared to that in its pre/post-integration period?
- 2) What are the key customer relationship variables in the logistics industry and which variables are impacted by the integration?
- 3) How/why does the integration affect those customer relationship variables?

### **4. Unit of Analysis**

Since the research was hosted by Company-X in Europe, it was necessary to focus on the topics related to the organisation. Many of the customer relationship management studies in the marketing discipline define their unit of analysis as a customer-supplier relationship either from supplier perspectives (Nielson, 1998), customer perspectives (Money, 2004) or both (Stock, 2005). In terms of the context, three phases of M&A activities are normally discussed — pre-M&A, announcement and post-M&A (e.g. Ashkanasy and Holmes, 1995; Capron and Pistre, 2002). Recent studies of M&A highlight the importance of the post-M&A integration phase (e.g. Homburg and Bucerius, 2005), which is also supported by the first pilot study respondents as follows (Pxx = Pilot participant ID, refer to **Appendix C**):

*Post-M&A integration period is critical, although M&A announcements affect customers' feelings in some way (P3), Post-M&A integration, especially salesforce integration was the key... The M&A announcement indeed promoted customer speculations... but no tangible reactions were observed (P4), Post-M&A integration definitely had an (negative) impact on day-to-day business, while customer speculations around M&A accouchement had no direct impact (P5).*

Considering the above and the nature of the business (B-to-B setting), it was decided to define the unit of analysis in this study as a customer-supplier relationship within the context of Company-X's post-M&A integration phase in Europe. This was investigated from the following perspectives: 1) the suppliers' perception of the customers' views, applying the approach used by Fynes and Voss (2002) and 2) the customers' actual views. The supplier is represented by account managers/directors (KAMs) and the customer is represented by decision-makers or influencers at their logistics or procurement department.

As the study is based on customer perceptions/responses, further clarification of the word 'customer' would be required. There are several options — either an acquirer's customers, target's customers or combined firm's customers as well as small local customers (Small and Medium Enterprises or SMEs) or large multi-national customers (Multi-National Corporation or MNCs). It was decided to focus on MNCs at the combined firm for the following reasons:

- The internal data indicate that almost all MNCs have had business relations with both the pre-merging firms (Companies X1, X2 and X3) and the integrated firm (Company-X), hence they would have a consistent view on the integration, which is not the case for SMEs.
- They have been dealing with the organisation at a global or European level, hence their key responses would not be influenced by less visible local issues.

### III. METHODOLOGY

#### 1. Personal Background and Value

The author joined the organisation (Company-X1) in 2002 as an HQ employee, when it was entering into the historical mergers. Since then the author has been involved in various integration/disintegration activities within Company-X in Europe with a substantial understanding of internal and external issues caused by the post-M&A integration. There are, however, both pros and cons of being an employee of the organisation used for this study. The main advantages are that it is relatively easy to access internal resources (e.g. financial data and documentation), approach key customers and understand what interviewees are talking about without lengthy explanations. On the other hand, there may be potential issues related to the values reflecting the background explained above. For instance, since the author had a negative perception about the integration, there may be a tendency to focus on collecting and/or selecting negative data. Furthermore, the industry/company knowledge may lead interviewees in a certain direction and/or drive the author to jump to a certain conclusion without deeper investigation. The potential issues were recognised and thus the study was designed to mitigate the impact on the research findings by applying multiple sources of evidence, active listening techniques and structured/transparent research methodologies.

#### 2. Overall Research Strategy and Method

##### 1) ***Generic Guideline***

Considering the unit of analysis defined earlier, case study methodology was explored as an overall research framework.

Cavaye (1996: P227-228, as quoted in Dobson, 2001) argues a very broad definition/application of the case study:

*“Case research can be carried out taking a positivist or an interpretive stance, can take a deductive or an inductive approach, can use qualitative and quantitative methods, can investigate one or multiple cases.”*

Yin (2003: P1) on the other hand, positions the case study from a more practical point of view:

*"The case study is but one of several ways of doing social science research. Other ways include experiments, surveys, histories, and the analysis of archival information. ... In general, case studies are the preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context."*

Yin (2003) claims the importance of using multiple sources of evidence to develop a comprehensive good case study — the six major sources of evidence. These are 1) Documentation (e.g. letters, announcements, and newspapers), 2) Archival Records (e.g. service records, organisational records, and survey data), 3) Interviews, 4) Direct Observations (passive, detached), 5) Participant Observations (active, involved) and 6) Physical Artifacts (e.g. tools, instrument...). Out of the six sources of evidence, he claims that interviews are most important and essential when studying human affairs.

Considering the above statements, it is clear that the case study is one of the well-established research strategies for social science, which allows any research paradigms and approaches but that interviews are the key data collection method.

Even though an interview is the most suitable method to study knowledge, opinions and attitudes of individuals (Van der Velde et al., 2004), there are pros and cons. Clear advantages over other methods are 1) direct interaction with respondents, 2) higher response rate and 3) more/deeper topics to be addressed, while disadvantages are 1) more time, effort and money is required, 2) reliability issues due to, for instance, participants' tendency to provide socially/politically desirable answers and 3) partial non-response for sensitive topics (Van der Velde et al., 2004). In terms of format, there are, in general, three types of interview: structured interview (fixed questions & answer options), semi-structured/focused interview (flexible questions & answers) and unstructured/open-ended/in-depth interview (Saunders et al., 2007; Van der Velde et al., 2004; Yin, 2003). Each type has a different purpose: the structured interview is suitable for descriptive study and the semi-structured one for explanatory study, while the unstructured interview is best suited to exploratory study (Saunders et al., 2007).

Similar to the distinction between descriptive, explanatory and exploratory study, there is an important aspect to consider when designing a research, which is qualitative method — predominantly for discovery or theory development, or quantitative method — predominantly for verification or theory testing (Partington, 2003). Concerning this issue, Deshpande (1983) claims that marketing scholars tend to focus on the quantitative method, whereas most marketing practitioners apply the qualitative method. He encourages academics to take a combined approach — a triangulation that can compensate for the weaknesses of one method by the strengths of another. He also proposes two potentially valuable approaches: 1) conduct qualitative study prior to quantitative study to familiarize oneself, which enables a researcher to better design survey measurements later, 2) conduct qualitative study after completing quantitative study for follow-up, which can suggest better interpretations of the statistical results.

## **2) Research Strategy/Method in Practice**

Here is a brief review of how the recent marketing studies with the triangulation method were carried out focusing on the research approaches, which can provide practical insights to the research design in this study.

Venelis and Ghauri (2004) studied interrelationships between service quality and retention. By reviewing the literature, they built their conceptual model with hypotheses that were then confirmed/supported through semi-structured interviews. The variables were further tested by a large-scale survey and the final model was presented using a structural equation modelling technique. de Ruyter et al. (2001) studied antecedents of trust and commitment. Since they identified limitations in the literature concerning their enquiries, they started from relatively large-scale semi-structured interviews with a list of discussion points in order to build their conceptual model and hypotheses. The defined hypotheses were then tested through a large-scale survey and the final model was presented using a structural equation modelling technique. Homburg and Rudolph (2001) studied dimensions for customer satisfaction. They used the literature to build their conceptual model with propositions that were then explored through a series of semi-structured and unstructured interviews. Survey measurements were developed/validated through the interviews and were then tested by a large-scale cross-sectional survey. The final model was presented using a structural equation modelling

technique. Schellhase et al. (1999) also studied dimensions for customer satisfaction. Through a literature review, they identified potential dimensions that were then verified by semi-structured interviews with experts. The validated dimensions from 38 statements were assessed by a seven-part rating scale through relatively large-scale structured interviews. The interview (survey) results were loaded to a (exploratory) factor analysis and then analysed by a regression analysis.

### **3) The Approach**

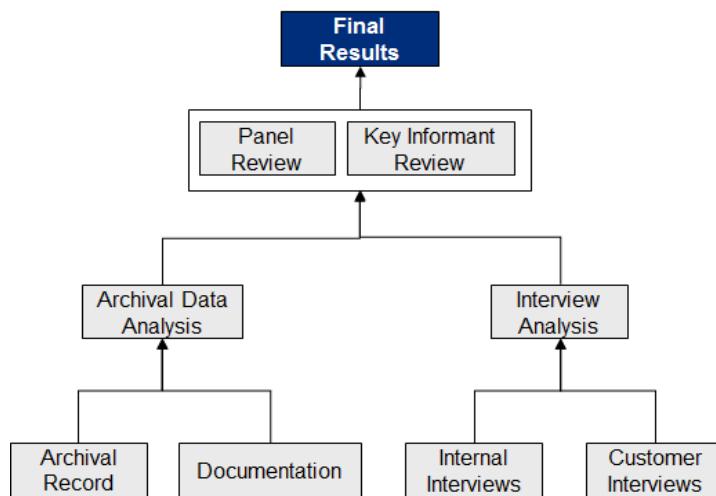
Considering the research objective/questions, unit of analysis and the author's philosophical stance as a "Realist" (see **Chapter-1, II.2. Philosophical Position**), it was decided to apply the explanatory case study as the research strategy/approach and the semi-structured interview as the data collection method — a combination of verification and discovery. This choice should be logical and valid because the explanatory case study implies a fundamentally realist approach (Dobson, 2001) and is suitable for causal studies (Paré, 2001), while the semi-structured interview is best suited for explanatory study (Saunders et al., 2007) and can handle both qualitative and quantitative data (Håkansson, 1982b).

When applying the case study and a semi-structured interview method rather than a cross-sectional survey method, it is necessary to consider data quality issues, namely reliability, interview bias and validity (Saunders et al., 2007). Reliability issues can be mitigated by clarifying and documenting the research strategy/method, protocol and records (Yin, 2003; Saunders et al., 2007). Interview bias issues can be mitigated by documenting an auditable interview process and interview guide, and adding structured interviews with valuables pre-evaluated by participants (Lillis, 1999). Validation issues (construct validity) can be mitigated by using multiple sources of evidence, establishing a chain of evidence and having key informants review draft reports (Yin, 2003). All the measures presented above were executed in this study.

## **3. Research Procedure**

The following describes the overall research procedure, target data sources and interview process used in this study. In terms of the data sources, Yin (2003) suggests

the following as the most commonly used sources of evidence in case studies: 1) Archival Record, 2) Documentation, 3) Interviews, 4) Direct Observations, 5) Participant Observations and 6) Physical Artifacts. Considering the fact that the target event (i.e. the integration) took place between 2003 and 2005, the research could only be carried out in a retrospective manner. Therefore, it was decided to utilise only the first three sources (Archival Record, Documentation and Interviews) in this study. The collected data were analysed separately and then integrated, which was then reviewed by key informants (Company-X senior management) and the research panel members. The procedure followed in this study is illustrated as follows (**Ch-3 Figure 3**):



**Ch-3 Figure 3: Research Procedure**

### **1) Archival Record**

The list of archival records to investigate the first research question (business performance) is comprised of — a) industry data, b) Company-X financial records, c) Company-X operations records, d) Company-X employee survey data and e) customer survey data.

### **2) Documentation Information**

The list of documentation information to investigate the first/second research questions and the context is comprised of — a) Company-X internal documentation, b) official documentation and c) external documentation.

### **3) Interview**

Since interviews are a critical part of any case study (Yin, 2003), they were positioned as such in this study. The first part of the interview was designed to investigate the second research question (M&A impact - WHAT) with quantitative data, whereas, the remaining part was designed to explore the third research question (M&A impact - WHY/HOW) with qualitative data.

**Interview Recording:** A recording device was used during interviews ONLY for phase-5 (the why/how part of the interview) and ONLY when agreed to by interviewees. All interviewees, except one supplier KAM, agreed to use the recording device.

### **4) Potential Problems**

According to Sobh and Perry (2006), there are two potential problems with the qualitative data reduction method applied in realism research, which is based on a prior conceptual framework, or research propositions. First, some important factors may not be included in the conceptual framework thus there may be a risk of missing those when analysing the underlying mechanisms. To avoid this potential pitfall, it was decided to ask every interviewee if any important variables were missing from the prearranged list of variables (phase-3 in the interview). Second, a researcher's bias, or personal value, may corrupt the data reduction process. Concerning this issue, Sobh and Perry (2006) suggest that it is important to be aware of the researcher's own background and personal values, and explicitly state them. The author's value statement can be found in **III.1. Personal Background and Value.**

## **IV. DATA COLLECTION METHOD**

### **1. Data Collection Method for Archival Record and Documentation**

As stated earlier, the author is an employee of the organisation used for this study and thus can have access to internal archival records/documentation and most of the major industry data through the corporate intranet or internal databases.

### **1) Archival Record**

In order to investigate the organisation's financial, operational, marketing and people performance during the integration (research question 1), the following archival records were collected:

- Industry data — source: industry databases (e.g. Data Monitor) and Company-X Market Research Centre,
- Company-X financial records — source: Company-Y annual reports and IR (investor relations) publications as well as Company-X internal financial database,
- Company-X operations records — source: Company-X internal operations performance data,
- Company-X employee survey data
  - Employee satisfaction survey — source: Company-X HR department,
  - M&A impact study within the organisation — source: the author (Assessment-2, Cranfield DBA),
- Customer satisfaction survey data — source: Company-X Market Research Centre.

### **2) Documentation**

In order to understand the original aim of the M&As, how the management planned/managed the integration and how the market perceived the M&As/integration, the following documentation information was collected. The data were used to support the interview data (research questions 2 and 3).

- Internal documentation (e.g. management presentations and newsletters) — source: Company-Y corporate intranet,
- Official documentation — source: Company-Y annual reports and IR publications,
- External documentation:
  - Analyst reports — source: Company-Y corporate intranet,
  - Industry journals — source: Internet (e.g. Google Scholar),
  - News articles — source: Internet (e.g. Google News Archive Search).

## 2. Interview Sampling Method

The sample size should be large enough to identify patterns but at the same time should be small enough to be administrated by a single researcher considering required time and cost (Lillis, 1999), thus it was necessary to carefully select target sample groups. Before going into the sampling discussion, the customer segment and sales channel at Company-X in Europe is briefly explained here. As shown in the figure below (**Ch-3 Figure 4**), there are six distinctive sales channels in Company-X to properly serve the customer segments (from multi-national corporations to consumers) — Global Key Account Management, European Key Account Management, National Key Account Management, Field Sales, Tele-Sales and Cash & Micro.

Considering the number of customers, it was not a good idea to target the national and local sales channels and their customers (mid-large companies, SME's and consumers). Hence, as mentioned earlier, it was decided to focus on MNCs (see section **II.4. Unit of Analysis**). Global Key Accounts are all well-known 'Fortune 500' corporations such as BMW, GE and HP, while European Key Accounts are less well-known but still 'Fortune 500' corporations such as Akzo Nobel, Electrolux and Johnson Controls. Finally, taking practical accessibility to the customers into consideration, it was decided to preliminarily focus on the European Key Accounts.

Sales Channel	Scope	# Customers	Customer Segment
Global Key Account	Global	100	MNC's
<b>European Key Account</b>	<b>Regional (EU)</b>	<b>100</b>	
National Key Account	National	2,000	Mid-Large Companies
Field Sales Channel	Local	> 200 k	
Tele Sales Channel	Local	> 500 k	SME's
Cash & Micro	Local	1 mil	Consumer

Source: Marketing & Sales Europe, Company-X, adapted by the author

**Ch-3 Figure 4: Customer Segment and Sales Channel at Company-X in Europe**

In terms of European Key Accounts, 20 (out of 100) have been managed by the sales channel since 2003 when the post-M&A integration started. This target number of 20 was logically reasonable considering their headquarter locations and the maximum number of international visits the author could realistically make during the research period. In general, several persons are involved in buying decisions, which is called a decision making unit (DMU) — decision-maker, influencer, purchaser, gatekeeper and user (Schellhase et al., 1999). Conventional business wisdom suggests that decision-makers and influencers play key roles in business relationships, therefore, it was decided to approach both of these where applicable.

The target samples discussed above are customers. As documented in the systematic literature review (Project-1), 7 out of 50 papers collected data from both customers and suppliers in order to investigate, for instance, if there are systematic differences between customer's view and supplier's view (Wathne et al., 2001). Furthermore, since the aim of this study was to investigate customer-supplier relationship issues, it was decided to include suppliers as targeted interview samples. Considering the selected customer group, the ideal interview candidates were European key account managers/directors, or KAMs, in European Key Account Management, who had practical experience of the integration being studied (around 20 people).

In summary, it was decided to approach the following sample groups:

- Customer ('Fortune 500' MNCs)
  - Function: Logistics management or procurement department
  - Target samples: 20 customer organisations (each represented by a decision-maker and influencers if the latter were applicable)
- Supplier (Company-X)
  - Function: European Key Account Management
  - Target samples: 20 European key account managers/directors (KAMs)

### **3. Interview Process**

The interviews were designed to cover both suppliers (KAMs) and customers (key decision makers/influencers) using the following procedure:

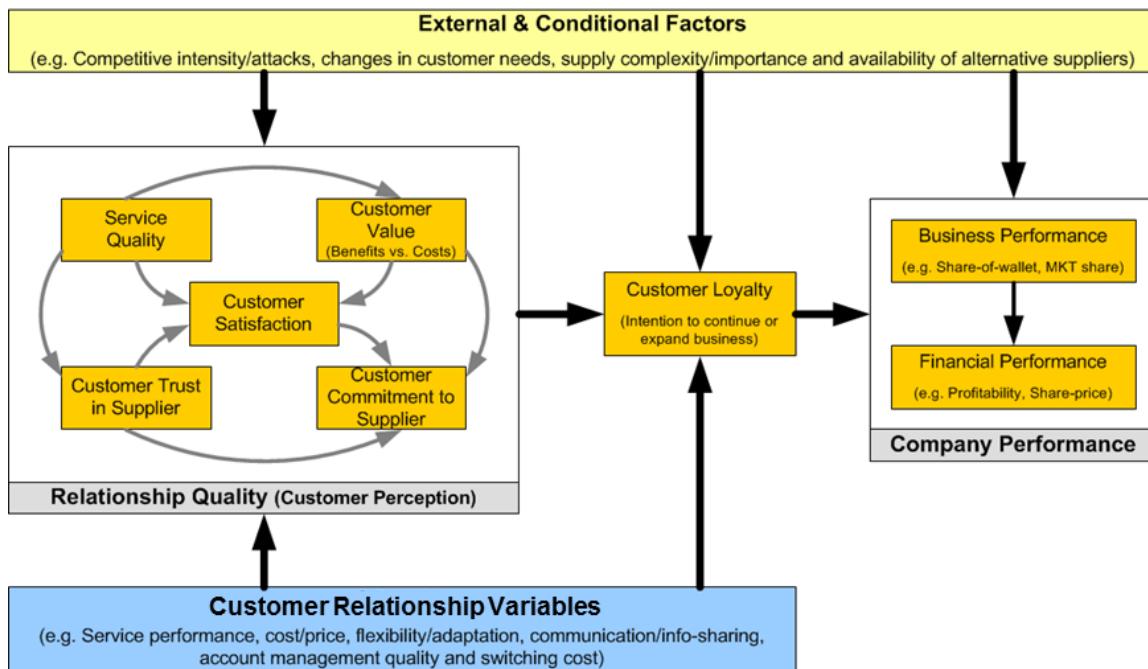
- Phase-1: Introduction — The research topic, interview objective and sharing of the literature-based conceptual mode in a ‘business as usual’ situation (B-A-U).
- Phase-2: Rank-order (importance rating) of the 31 key variables identified in Project-1 in B-A-U.
- Phase-3: Identification of missing variables from the list (31 variables) and rank-order of them in B-A-U.
- Phase-4: Review of the importance rating of the variables — A comparison of that in B-A-U and that during the Company-X post-M&A integration period.
- Phase-5: Identification of key variables impacted by the Company-X post-M&A integration and exploration of WHY and HOW.

The quantitative data (importance rating) were essential to prioritise key variables for further investigation through qualitatively rich data.

**Note:** As stated earlier, the supplier KAMs (interviewees) were requested to represent their key customers' views for the interview phases 2-5.

#### **4. Interview Phase-1**

The objective of this phase was to briefly introduce the research topic (how M&As affect customer relationships and as a result business performance), clarify the objectives of the interview and share key findings from the literature — the high-level conceptual model in a business-as-usual situation (**Ch-3 Figure 5**) as a common base for the discussion:



**Ch-3 Figure 5: High-Level Construct (Conceptual Model)**

## 5. Interview Phases 2 & 3

The objective of these phases was to sort all the key variables identified in Project-1 by an importance rating method in a ‘business as usual’ situation and then identify missing variables from the list, if applicable. Verification of the variables prior to the impact study is particularly important because there is no guarantee that the concept developed by academic researchers can be applicable to practical business situations (Schellhase et al., 1999) in general and to the logistics industry in particular.

In general, managers (customers) would agree to be interviewed when the topic is interesting and relevant to their work (Saunders et al., 2007), but it is important to maintain their interests during interview (Håkansson, 1982b). Considering the above, well established interactive methods/techniques were explored for the importance rating, which could then be used during the planned interviews.

### 1) **Importance rating method**

Firstly, the author investigated ‘Repertory Grid’, a highly structured technique based on G. Kelly’s ‘theory of personal constructs’ to reveal interviewees’ views without interviewer bias (Goffin, 1994; 2003). There are many advantages to applying this

technique in management research in general, and marketing research in particular; for instance, it can be best used to help customers articulate their views on suppliers' products and services (Goffin, 1994). However, knowing the fact that it may take 50-60 minutes to properly cover 5-6 elements (Goffin, 2003), it cannot be used in this study's interviews which need to cover at least 31 elements.

Secondly, the author examined 'Laddering', a technique for in-depth, probing interviews. It is claimed to be particularly appropriate for a social constructivist who believes an individual creates his/her own reality (Baker, 2003). In order to assess its applicability to this study's interview setting, the technique was tested as part of the doctorate taught class at Cranfield University. It was found that the technique did not fit the author's philosophical position as a 'Realist'. Furthermore, the technique requires highly qualified interviewing skills and experience when interviewing a senior manager (customer) but the author did not have a track record in those areas.

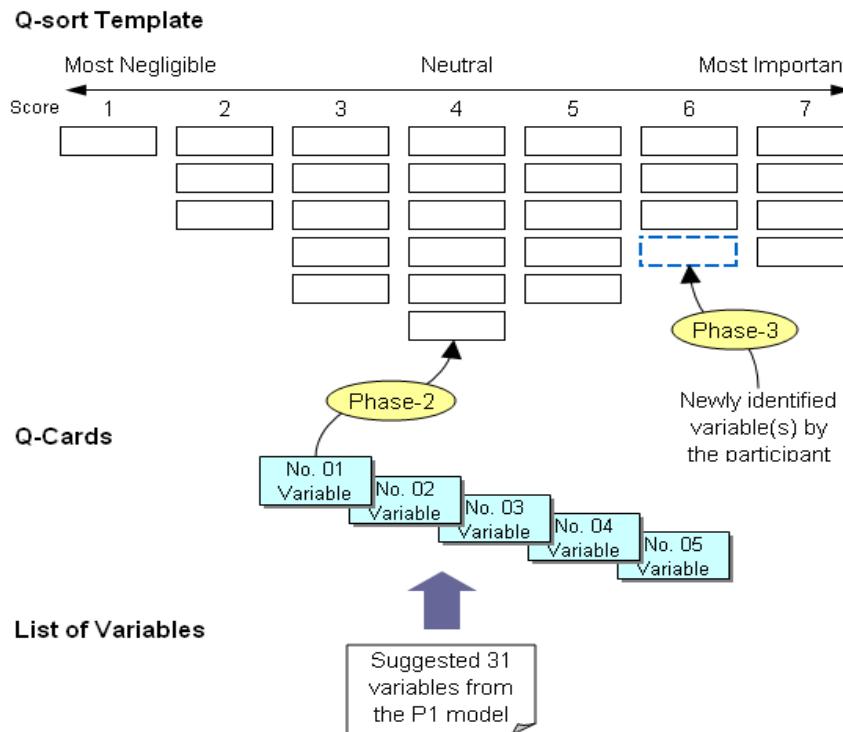
Finally, the author picked up 'Q-Methodology' invented by British physicist-psychologist W. Stephenson in 1953 as a way to study subjectivity in any situation (Brown, 1996). It is a research method and tool that aims to combine the advantages of both qualitative (richness) and quantitative (standardization) methods (Van Exel and De Graaf, 2005; Donner, 2001) and can be divided into two parts — Q-sorting (data collection) and factor analysis (pattern analysis) (Watts and Stenner, 2005). Typically, it provides an umbrella question with a list of 20 – 60 statements about the topic (called Q-cards), where participants are asked to rank them using a quasi-normal distribution score sheet (called a Q-sort template) based on their individual judgements. These rankings (or individual viewpoints) are loaded into a factor analysis for interpretation, such as identification of sub-groups within the participants, who share a similar preference/judgement pattern. Q-Methodology has many advantages. It is an unbiased, empirically verifiable and repeatable method for the study of values, opinions and meanings (Robbins and Krueger, 2000), provides a well-controlled process for a systematic study of subjectivity and is suited to a single issue with multiple dimensions (Donner, 2001; Van Exel and De Graaf, 2005), is easy to handle and more importantly, participants enjoy the Q-sorting process and see it as instructive (Donner, 2001; Van Exel and De Graaf, 2005). Despite its decades of history and popularity, it has been facing criticisms (what Watts and Stenner (2005) call misunderstandings) from some

qualitative researchers, mainly due to its pre-designed statements and quasi-normal distribution, or forced distribution method (Watts and Stenner, 2005). In addition, there is scepticism about reliability, or more precisely replicability — whether similar results can be obtained from different research sets (Van Exel and De Graaf, 2005).

Considering the research objective and the above investigations, it was decided to use the Q-sort technique (a part of the Q-methodology) in this study's interviews, in the same way that Carter et al. (2007) used only the Q-sorting part to assess the reliability/validity of their qualitative cluster analysis. However, the method (Q-sorting) needed to be modified, not only to fit the interview objectives but also to mitigate the methodological scepticism, as follows:

- Instead of using only a pre-defined set of statements (Q-cards), it was modified to allow participants to add their own thoughts or criteria in order to identify missing variables and then include them for the importance rating (Q-sorting). This would also help in deflecting criticism about its rigidity.
- It was modified to allow participants to assign Q-cards with free distributions rather than forcing them to do so with the quasi-normal distribution. This would minimize criticism about its enforcement, which is supported by Watts and Stenner (2005).

The reliability/replicability issue was tested through the pilot study v2 and the technique was proved to be convincing (see **Appendix D**). The modified Q-sorting technique with defined process (referring to Donner, 2001; Van Exel and De Graaf, 2005), can be explained as follows (**Ch-3 Figure 6**):



**Ch-3 Figure 6: Modified Q-sorting Technique and Process (Interview Phase 2-3)**

### **2) Phase-2**

The phase-2 interviews were organised as follows: A set of Q-cards (31 pre-printed cards) with a unique ID number, variable title and its definition, was provided to the participants. They were asked to rank order the Q-cards from most important (7) to most negligible (1) on the Q-sort template with the following question: Which of the following variables do you think affect relationship quality and customer loyalty most in the logistics industry, in a business as usual situation?

- Open-ended comments (why/how) were not required at this stage.
- The list of pre-defined variables with definitions from the Project-1 can be found in **Appendix A** and **Appendix B**.

### **3) Phase-3**

The phase-3 interviews were organised as follows: The participants were asked to check if any important variables were missing from their perspectives. If identified, they were asked to clarify the variables and rank order these using the same logic as above.

- Open-ended comments (why/how) were not required at this stage.

## **6. Interview Phase-4**

The objective of this phase was to investigate if the importance of the variables rated in Phases 2 & 3 was different during the Company-X post-M&A integration period. It was organised as follows: The participants were asked to think if the importance rating in a business as usual situation had been different during the integration period (2003-2005). If that were the case, they were asked to change the order and then to explain WHY.

## **7. Interview Phase-5**

The objective of this final and most critical phase was to identify key variables (negatively or positively) impacted by the post-M&A integration and explore why and how. It was organised as follows:

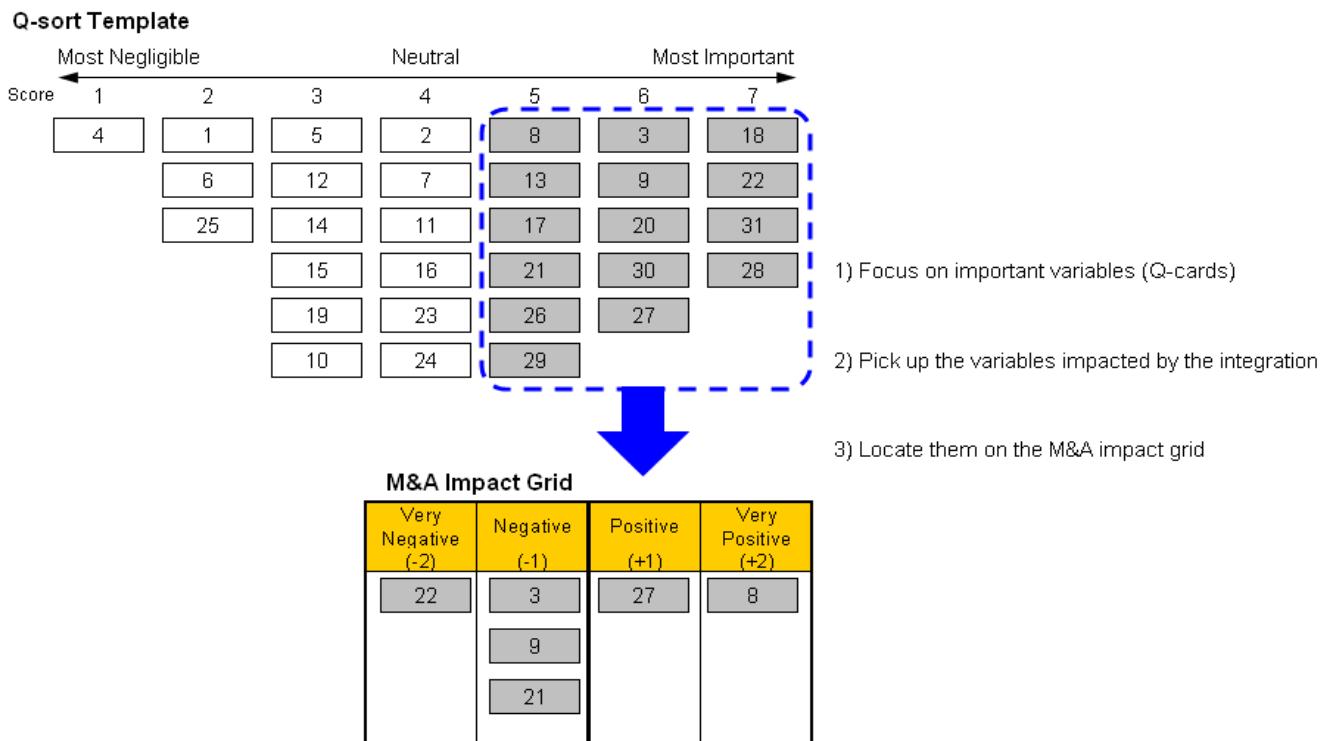
First, the participants were asked to focus only on important variables (ratings between 5 and 7 in phase-4) and pick up the variables that had been, from their own perspectives, impacted by the Company-X post-M&A integration (2003-2005) in Europe. They were then asked to locate the variables on the new template: an M&A Impact Grid consisting of the following headers:

- Very negatively impacted — e.g. Communication became much worse than ever
- Negatively impacted — e.g. Communication became worse
- Positively impacted — e.g. Communication became better
- Very positively impacted — e.g. Communication became much better than ever

The trading records with Company-X (the business increased, was unchanged or decreased) in Europe during the period were provided for their reference, if available.

The participants were then asked to explore “WHY and HOW” the variables had been impacted negatively/positively by the integration. This was done in an open-ended manner to allow them to recall the events with some examples, which were designed to provide further valuable insights when interpreting the data later on (Van Exel and De Graaf, 2005; Watts and Stenner, 2005).

The variable selection and rating process in this last phase can be visualized as follows (**Ch-3 Figure 7**):



**Ch-3 Figure 7: Modified Q-sorting Technique and Process (Interview Phase 5)**

## **8. Data Collection Template**

All the data collected from the interviews were recorded in the following two separate templates, except the phase-5 why/how part, which was in a free transcription format from the voice recording.

### **1) Interview Record**

Generic information (interviewee ID, name and interview date) as well as remarks and short comments were recorded individually (**Ch-3 Table 1**):

ID	X-17	Interviewee	WH	Date	22-Jan-2009
Ph-1	The model was endorsed.				
Ph-2	No comment.				
Ph-3	<ul style="list-style-type: none"> <li>▪ X17-32: Personal relationship at all level (incl. courier, CS agent, account manager and senior management)</li> <li>▪ X17-33: Supplier's capability for innovation (IT as an enabler)</li> </ul>				
Ph-4	The rank-order should be the same because it is the business principle.				

**Ch-3 Table 1: Individual Interview Record (Example of interviewee: X-17)**

## 2) Scoring Table

The results of the Q-sorting exercises were recorded in four separate tables: 1) importance rating in a business-as-usual situation, 2) importance rating in M&A, 3) M&A impact rating and 4) overall rating (table-2 scores x table-3 scores). Here is an example of the table (**Ch-3 Table 2**):

ID	1	2	3	4	5	6	7	8	9	10	•	•	•	← Variable number
X-1														
X-2														
X-3														
X-4														
X-5														
•														
•														
•														

↑ Interviewee ID

**Ch-3 Table 2: Scoring Table (4 tables)**

## 9. Pilot Study

A series of pilot studies were conducted. Pilot v1 (**Appendix C**) was to test the validity as well as feasibility of the interview and data analysis method, while Pilot v2 (**Appendix D**) was to test the reliability of the interview method. The results and implications from the pilot studies were reflected in the research protocol of this study.

## 10. Interview Guide

An interview guide was developed to take a consistent approach throughout the series of interviews (**Appendix E**).

## V. DATA ANALYSIS METHOD

### **1. Data Analysis Strategy and Technique**

Since this is an academic research paper, it is mandatory to satisfy the expected level of quality in the social sciences. To establish that in a case study, Yin (2003) recommends applying the following four tests, commonly used in any empirical social research — 1) construct validity (correctness of operational measures), 2) internal validity (validity of causal relationships), 3) external validity (generalisability) and 4) reliability (repeatability). Based on Yin's suggestions on the quality tests, as well as data analysis strategies and tactics particularly relevant to case study research, it was decided to use the following data analysis strategies/tactics in this study:

- To synthesize evidences from multiple sources (e.g. internal/external data and interviews) and ask key informants to review the draft findings to establish the construct validity,
- To provide transparency in data collection (e.g. interview guide, template and transcription) and data analysis (e.g. every step for data reduction) to establish reliability.

Considering the limited scope and size of samples, external validity, or generalisability, could not be pursued in this research project.

### **2. Data Analysis Method for Documentation and Archival Record**

#### ***1) Archival Record***

The archival records collected in this part of the study were quantitative data, mainly market share, financial performance and operational performance as well as employee and customer survey results. The data were analysed focusing on their trends and comparison against the competition where applicable.

The following research sub-questions as well as starting point assumptions were explored in the archival records. The results were designed to serve as background information for the interview analysis at a later stage:

## A. Research sub-questions

- (1) How was the business performance of Company-X in Europe during its integration period compared to that in its pre/post-integration period? (Main research question 1)
- (2) How was its performance above reflected in its market share?
- (3) How was the M&A/integration perceived by its employees?

## B. Starting point assumptions

- The organisation suffered financially and operationally during the integration.
- As a result, it lost its market share substantially during the integration.
- Its employees perceived the integration (very) negatively.

### **2) Documentation**

The document information collected in this part of the study was qualitative data, mainly from management presentations, annual reports, analyst reports, commercial articles and newspapers. The data were extracted based on the relevance to the topic being studied and analysed.

The following research sub-questions as well as starting point assumptions were explored in the documentation. The results were designed to serve as background information for the interview analysis at a later stage:

## A. Research sub-questions

- (4) What was the original aim of the series of acquisitions?
- (5) How did the market (i.e. industry/financial analysts that represent various stakeholders) perceive the acquisitions?
- (6) How did the management manage the integration?
- (7) How did the market (industry/financial analysts) perceive the integration?

## B. Starting point assumptions

- The aim of acquisitions was well understood by the market.
- But the integration (e.g. progress) was perceived negatively by the market.

### **3. Data Analysis Method for Interview**

The data collection method applied in the series of interviews was a combination of quantitative and qualitative methods, which was reflected in the data analysis method — the quantitative data were used to investigate the “what” questions and then prioritise key relationship variables which were then further explored by the qualitative data to investigate “why/how” questions.

The following research sub-questions, as well as the starting point assumptions, were explored in the interviews:

#### **A. Research sub-questions**

- (8) How is the literature-based conceptual model (**Ch-3 Figure 5**) perceived by business managers (supplier KAMs and customers)?
- (9) What are the key customer relationship variables in the logistics industry in a business as usual situation?
- (10) Are there any customer relationship variables missing from the list, if so what are they?
- (11) What were the key customer relationship variables during the Company-X integration in Europe? — same as the main research question 2)-1
- (12) If the importance rating of the variables during the integration was different from that in the business as usual, what were the reasons?
- (13) Which of the key customer relationship variables were impacted by the Company-X integration? — same as the main research question 2)-2
- (14) Why/how were the key customer relationship variables affected by the Company-X integration? — same as the main research question 3)

#### **B. Starting point assumptions**

- The key relationship variables in a business as usual situation were more or less the same during the integration.
- Both supplier KAMs and customers perceived the integration in a (very) negative manner.
- There was an interrelationship between the customer's trading record (up/down trading) and perceived integration effects during the integration.

#### **4. Quantitative Interview Data Analysis**

Here is a summary of the quantitative data analysis method for the interviews from phase-2 to phase-5:

##### **1) Phases-2 & 3: Importance rating of the variables (B-A-U)**

A quantitative scoring analysis was formulated as follows:

Importance of a variable on relationship quality in a business as usual situation =

Phases-2 & 3 mean score of a variable =

$$\sum (\text{score}^* \text{ } _p1^{**} + \text{score} \text{ } _p2 \dots \text{score} \text{ } _pN) / N^{***}$$

\*score = between 1 and 7, based on the Q-sort rating

\*\*p = participant, 1, 2 ... N

\*\*\*N = the number of participants

The importance assessment rule applied for all the variables was: the higher the mean score, the more important. For instance, if the mean score of 'communication' rated by all the participants is '6.2' and that of 'fairness' is '4.2', it implies that the former affects the relationship quality stronger than the latter.

##### **2) Phase-4: Importance rating of the variables, M&A**

Exactly the same formula as above was applied here:

Importance of a variable on relationship quality during the integration =

Phase-4 mean score of a variable =

$$\sum (\text{score}_p1 + \text{score}_p2 \dots \text{score}_pN) / N$$

##### **3) Phase-5: Key variables impacted by M&A**

A similar logic to the above was applied here:

Importance of a variable on relationship quality during the integration =

Phase-4 x Phase-5 mean score of a variable =

$$\sum (\text{Ph4\_p1} \times \text{Ph5\text{\_}p1} + \text{Ph4\_p2} \times \text{Ph5\_p2} \dots \text{Ph4\_pN} \times \text{Ph5\_pN}) / N$$

\*Ph4 = Phase-4 score (between 1 and 7, based on the Q-sort rating)

\*\*Ph5 = Phase-5 score (very negative: -2, negative: -1, neutral: 0, positive: 1, very positive: 2)

The importance/impact assessment rule applied for all the variables was: the higher/lower the mean score, the more positive/negative the integration impact on the relationship quality. Here is a guideline and an example of the overall scoring method and its implication (**Ch-3 Table 3** and **Ch-3 Table 4**):

Mean score of variable and its implication	
Phase-4, Importance	> 6 --- highly important, > 5 --- important
Phase-5, Impact	> 1 --- very positive, > 0.5 --- positive < -1 --- very negative, < -0.5 --- negative
Importance x Impact	> 5 --- very positive impact, > 2.5 --- positive impact < -5 --- very negative impact, < -2.5 --- negative impact

**Ch-3 Table 3: Importance/Impact Assessment (Guideline)**

Variable	Phase-4		Phase-5		Implication	
	Score	Importance	Score	Impact	Score	Importance x Impact
A	6.2	Very high	-1.5	Very negative	-9.3	Highly negative impact
B	5.0	High	0.8	Positive	4.0	Positive impact
C	4.2	More or less	0.0	Neutral	0.0	No impact
D	1.2	Negligible	1.8	Very positive	2.2	Limited positive impact

**Ch-3 Table 4: Importance/Impact Assessment (Example)**

For instance, if the mean score of ‘communication’ rated by all the participants is ‘ $6.2 \times -1.5 = -9.3$ ’ and that of ‘fairness’ is ‘ $4.2 \times 0 = 0$ ’, it implies that the former suffered during the integration period and had a very negative impact on the relationship quality, while the latter was not affected by the integration and thus had no major impact on the relationship quality during the period.

#### **4) Remarks**

Here are remarks related to the series of quantitative data analyses (from Phase-2 to Phase-5):

- Based on the defined unit of analysis in this study (see section **II-4. Unit of Analysis**), the supplier KAM data and customer data were treated differently.

The former were treated as they were (the supplier KAM's perception of the customer organisation's view), whereas the latter needed to be aggregated to the organisation level if two or more respondents (i.e. influencers) were involved per organisation.

- Following the importance assessment rule explained above, variables newly identified by particular participants in phase-3 might receive smaller scores than those in the initial list (31 variables). To avoid overlooking the importance of newly identified variables, a separate analysis (e.g. the number/ratio of interviewees claimed and mean scores within them) was conducted.
- Comparisons between the supplier KAMs' mean scores and the customer organisations' mean scores was conducted once all the target data were collected and analysed.

## **5. Qualitative Interview Data Analysis**

Here is a summary of the qualitative data analysis method with examples for the interview phase-4 (why different) and the phase-5 (why/how impacted).

The interview data from the open-ended questions are rich and informative but their analysis may be subject to bias due to interpretations made by a researcher. To mitigate the potential bias and enhance trustworthiness of the analysis results, the author applied the concept of 'structured data displays' proposed by Lillis (1999) originally outlined by Miles and Huberman (1994). This is a technique to systematically reduce the vast amount of rich qualitative data (interview transcriptions) so that one can analyse the data step by step by providing an auditable trail. The four-step approach applied by Lillis (1999) is: 1) Code transcriptions, 2) Prepare data sheet for each transcription, 3) Combine all the data sheets in a multi-case matrix format, and 4) Build up content of the matrix case by case.

Systematically integrated data were then visualised by applying a mapping technique — the way to simplify complex ideas, highlight critical aspects and reveal causal relationships (Huff and Jenkins, 2002). Ambrosini and Bowman (2002) describe a questioning process/technique to develop a causal map after identifying key constructs from initial interviews. Their approach, used in a workshop, can be summarised as

follows: 1) ask participants to find what caused that and/or how that happened and 2) ask them to provide an example and/or tell a story around that. Their example shows that it would be possible to identify unknown or take-it-for-granted cause-effect patterns effectively if the visualisation/mapping technique is applied. The technique above was applied when mapping causal relationships from interview data containing what, why and how with examples.

The five step approach applied in this qualitative data analysis by combining/adapting the structured data displays and the visualisation/mapping techniques above is as follows:

### **1) Step-1: Data Preparation**

#### **A. Data consolidation from the interview records:**

The interview records about the key relationship variables (highly important variables with high M&A impacts, identified by the quantitative analysis) were consolidated in the following format (**Ch-3 Figure 8**) in order to structure the key data for further analyses:

- **Supplier KAM:** Interviewee ID, name (initial), importance rating (ImpO), impact rating (ImpA), overall implication score ( $\text{ImpO} \times \text{ImpA}$ ) and former organisation (Companies-X1, X2 and X3). → Mean of overall implication scores for all the variables (ToT) is used to classify happy/unhappy KAMs (as customer facing sales representatives/managers).
- **Customer:** Interviewee ID, customer name, importance rating, impact rating and overall implication score. → Trading records with Company-X (up, stable or down trading) during the integration are used to classify happy/unhappy customers.

By variable					By interviewee	
ID	Name	ImpO	ImpA	ImpO x ImpA	ToT	Org.
X-17	WH	7	-2	-14	-2.4	X1
X-5	PW	7	-2	-14	-2.6	X1
X-16	TJ	7	-2	-14	-1.3	X1
X-13	AS	6	-2	-12	-3.3	X1
X-6	JDV	6	-2	-12	-1.4	X2
X-11	JB	6	-2	-12	1.2	X2
X-8	BP	5	-2	-10	1.0	X2
X-14	PL	7	-1	-7	-2.6	X1
X-9	AF	7	-1	-7	-1.5	X2
X-12	RR	6	-1	-6	-1.3	X2

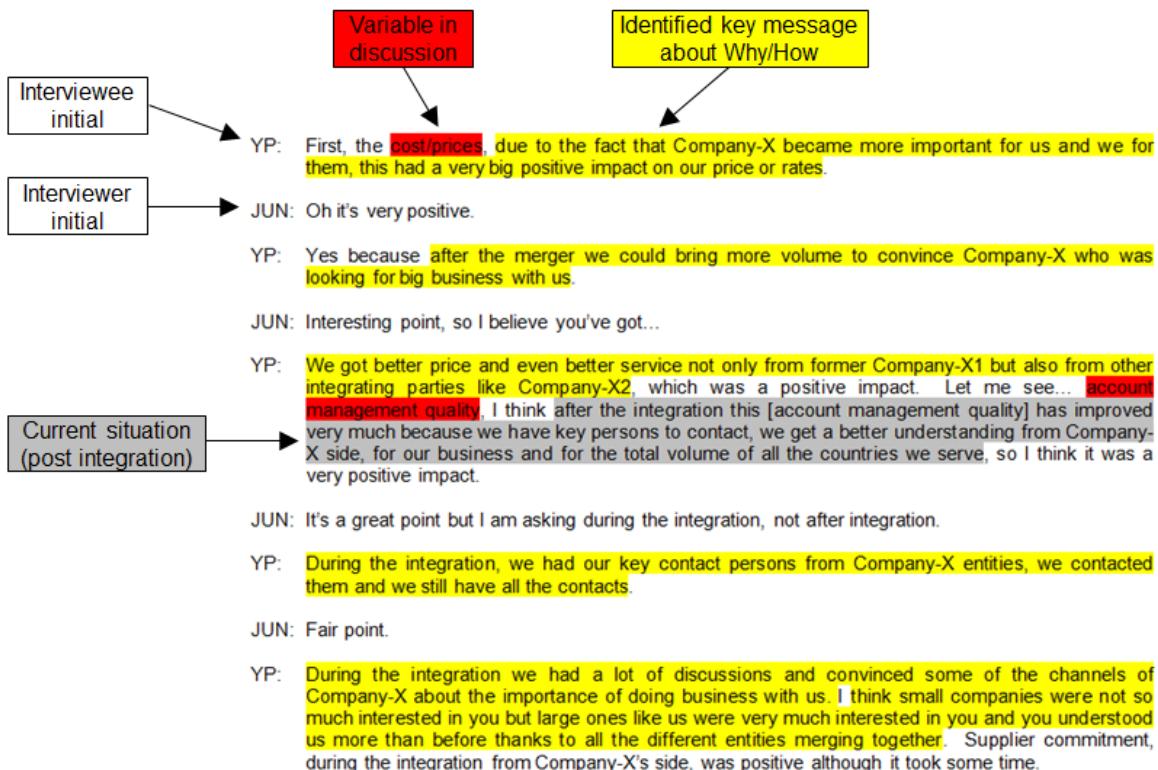
Color coding scheme:



**Ch-3 Figure 8: Consolidated Interview Record  
(Example of Service Performance, supplier KAM data)**

### B. Data reduction from the interview transcriptions:

Interview transcriptions of the phase-5 why/how part were analysed one by one through the following approach. First, a variable in discussion (e.g. 'customer orientation') was marked in RED. Then main arguments were highlighted in YELLOW — why and/or how the interviewee perceived the impact of the integration on the particular variable. Only the arguments directly related to the topic were selected. Furthermore, arguments about how the interviewee perceives now were highlighted in GRAY, if applicable. Below is an example of extracting key data from an interview transcription (Ch-3 Figure 9):

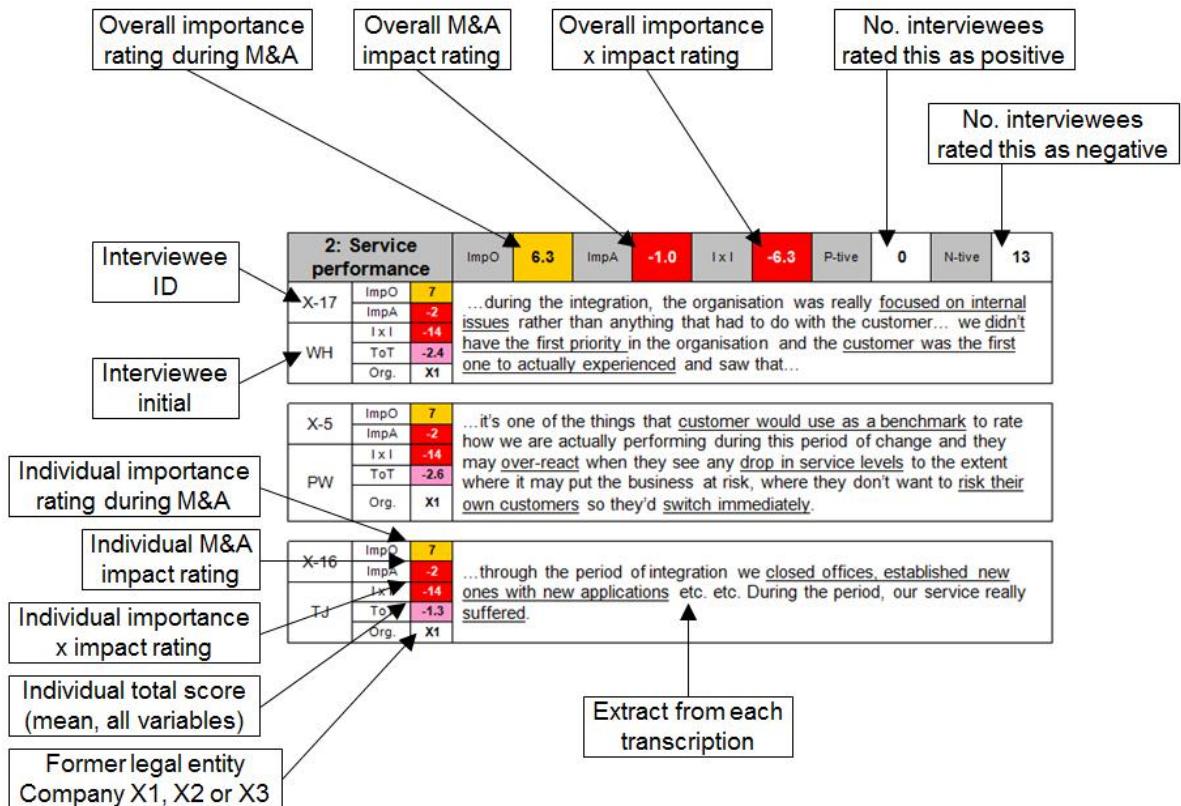


**Ch-3 Figure 9: Interview Transcription and coding (Example)**

**Note:** There is widely used computer software for qualitative analysis such as NVivo or NUD\*IST, but it was decided not to use it because the time and effort of setting up or running the software outweighed the benefits (Sobh and Perry, 2006).

## 2) Step-2: Building Datasheets

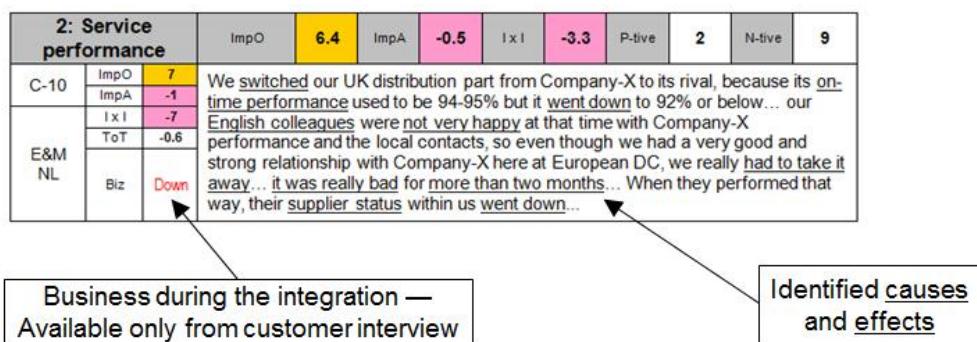
By synthesising the consolidated interview records and extracted key arguments (quotations) above, a structured datasheet was developed by variable. An example of the datasheet for 'Service Performance' (supplier KAM data) is shown as follows (**Ch-3 Figure 10**):



**Ch-3 Figure 10: Interview Datasheet (Example)**

### 3) Step-3: Identifying Causes and Effects

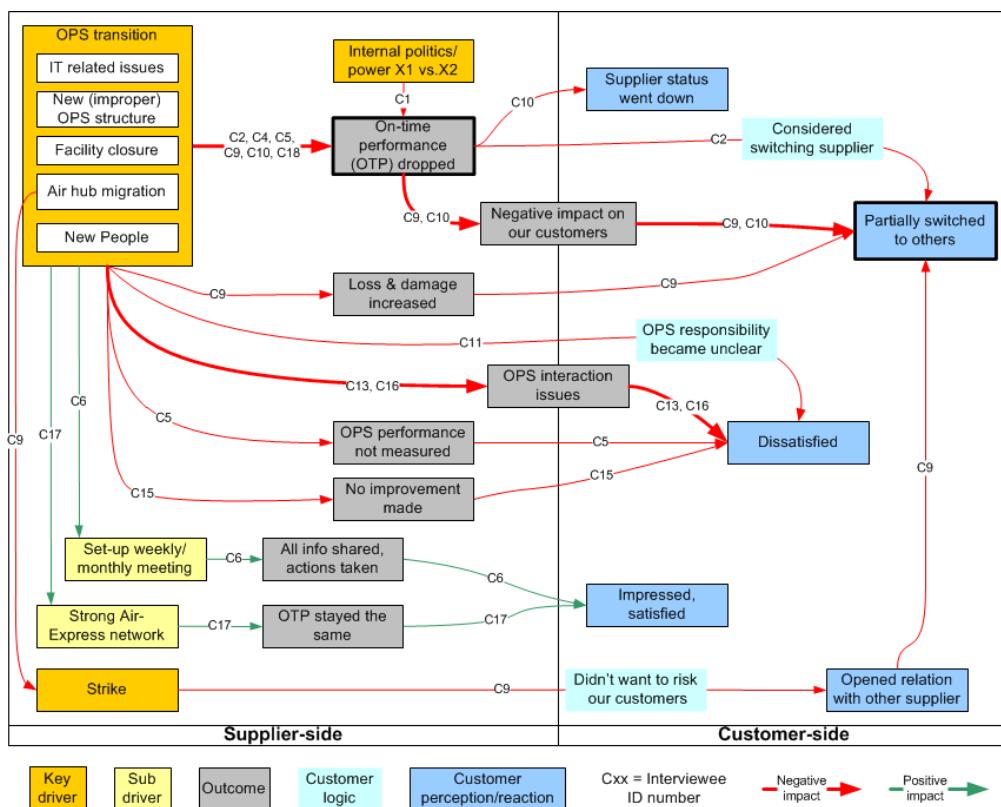
The datasheet was further analysed to identify perceived causes and effects, which were highlighted by being underlined. An example of the cause-effect key words for 'Service Performance' (customer data) is shown as follows (Ch-3 Figure 11):



**Ch-3 Figure 11: Cause-Effect Identification in Interview Datasheet (Example)**

#### 4) Step-4: Developing Causal Map by Variable

The datasheet (cause-effect key words) above was transformed into a causal map by making the best use of the visualisation technique. A causal map was developed by classifying the key words as either key driver, sub-driver, outcome, customer logic or customer perception/reaction, which relationships were then mapped by arrows with interviewee ID's. An example of the causal map for 'Service Performance' (customer data) is illustrated below (**Ch-3 Figure 12**):



**Ch-3 Figure 12: Causal Map (Example)**

#### 5) Step-5: Developing Consolidated Causal Map

As the final stage of the series of interview data analyses, the following actions were taken:

- Connected the causal links across the variables and developed a consolidated causal map from the supplier KAM and customer perceptions separately,
- Compared the supplier KAM causal map against the customer one, by highlighting similarities and differences,
- Developed a combined causal map from both perceptions, if applicable.

## VI. ARCHIVAL RECORD (QUANTITATIVE DATA)

As stated in **V. Data Analysis Method**, here is the set of questions explored mainly in annual reports, IR publications, internal financial/operational data, industry databases and internal employee surveys:

- How was the business performance of Company-X in Europe during its integration period compared to that in its pre/post-integration period? (Main research question 1)
- How was their performance above reflected in its market share?
- How was the M&A/integration perceived by its employees?

**Note:**

- Initially it was planned to include customer satisfaction indices in the organisation, however, due to lack of consistency in their scope and method, it was decided not to include them in this study.
- Company names and some data/information are masked for confidentiality reasons.

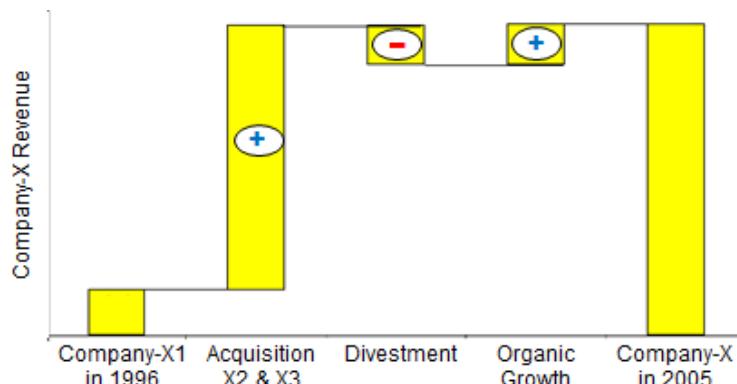
### 1. Financial Performance

This section presents the organisation's global revenue development before, during and after the M&A/integration, followed by its European revenue and profitability development during and after the M&A/integration using publically available data sources. Then it presents the organisation's European financial KPIs and revenue development from the European Key Accounts during and after the M&A/integration using internally reported data.

#### 1) ***Company-X Global: Revenue Development***

In terms of reported revenue, the company had grown significantly between 1996 and 2005 with a CAGR (compound annual growth rate) of 24%, which was much higher than its rivals' (Rival-A's 5%, Rival-B's 8% and Rival-C's 10%). However, as clearly

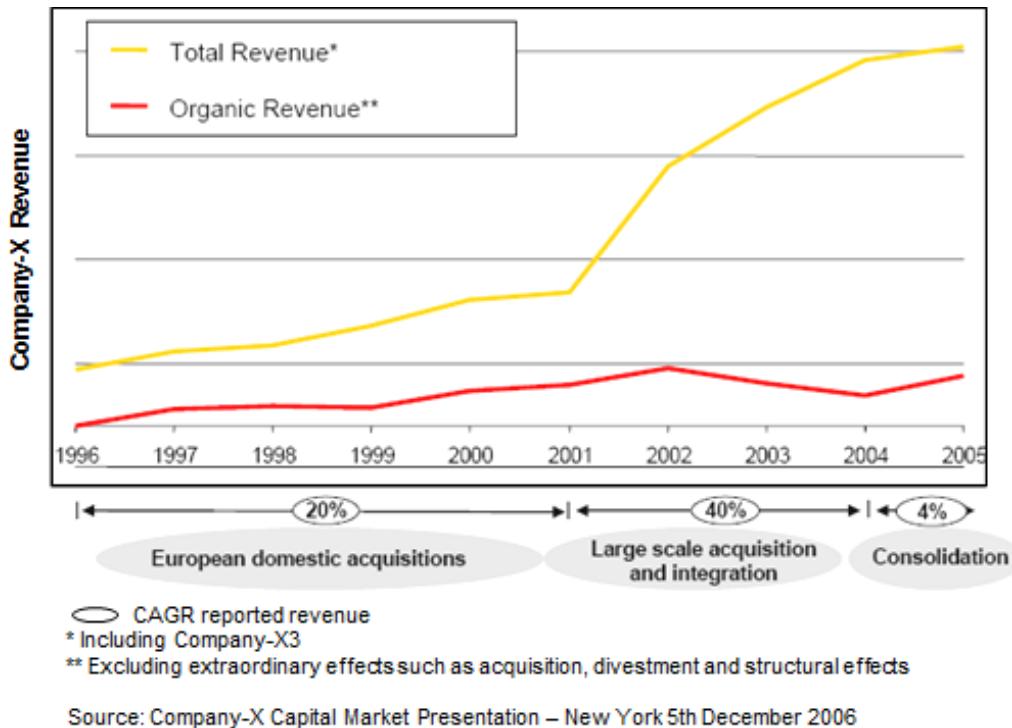
shown in the figure below (**Ch-3 Figure 13**), almost 90% of its growth had come from the M&A activities, while its rivals (Rivals-B and C) had largely grown organically.



Source: Company-X Capital Market Presentation – New York 5th December 2006

### Ch-3 Figure 13: Company-X Global Revenue Development and Key Drivers

As indicated in **Ch-3 Figure 14**, the company's global M&A activities were divided into three phases: 1) European domestic acquisitions without physical integration between 1996 and 2001, 2) large scale acquisitions and integration between 2001 and 2004, and 3) consolidation between 2004 and 2005. During the first phase, both reported and organic revenues grew almost at the same pace, whereas there was a large gap between reported and organic revenues during the second phase. Furthermore, during the official integration period of the Company-X group (2003-2005), the organisation even recorded a decline in its organic revenue.



**Ch-3 Figure 14: Company-X Global Revenue Development 1996-2005**

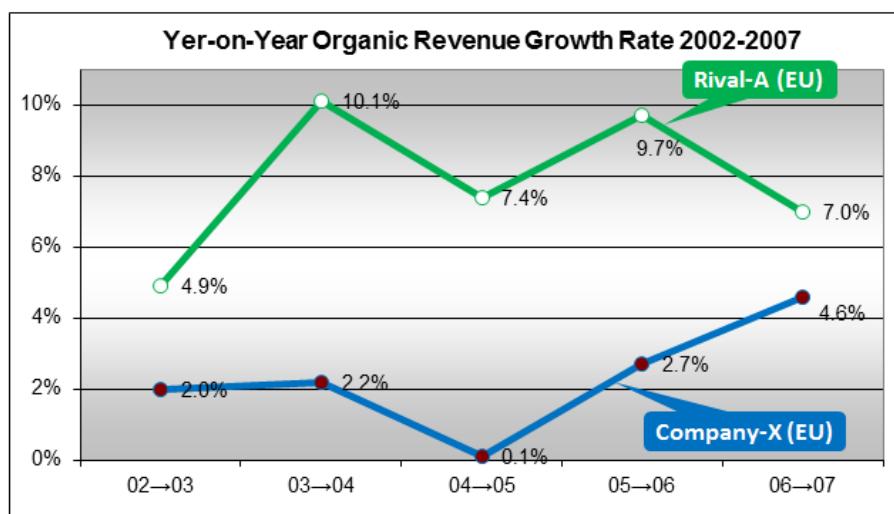
## 2) Company-X Europe: Benchmarking against Rival-A Europe

In order to make a sound assessment of Company-X's financial performance in Europe during and after the integration, a benchmarking exercise was conducted against Rival-A Europe considering the following:

Both Company-X and Rival-A have a lot in common; for instance, they 1) have a similar history of corporate development, 2) have been competing in the same market segment since the late 90's, and 3) focus on the European market (in 2005, Company-X generated 60% of its revenue in Europe, while Rival-A did 82%).

On the other hand, there is a fundamental difference. Rival-A completed most of its M&As by 1999 with minor players, whereas, Company-X went through heavy M&A activities until 2003 and then launched a full integration programme. Therefore, it is apparent that during the period being studied, i.e. between 2003 and 2005, when Company-X was integrating all the acquired companies in Europe, Rival-A was in a business as usual situation. This makes Rival-A a relevant benchmark to assess the impact of the post-M&A integration on Company-X.

To make a fair comparison between the two companies, their year-on-year organic revenue growth rates from 2002<sup>3</sup> to 2007 were extracted, excluding the M&A effects — Rival-A data were taken straight from annual reports, while Company-X data were estimated based on reported revenue and information about Companies-X1, X2 and X3 as well as internal revenue data. As clearly indicated in the figure below (**Ch-3 Figure 15**), when Company-X was executing the large scale integration between 2003 and 2005, its organic business growth (year-on-year growth rate) was very limited compared to that of Rival-A in the same period. Especially in 2005, the planned final year of the integration, Company-X suffered most with flat growth. It was 2006, four years after the launch of the integration programme, when the company started to show signs of recovery.



Source: Company-X annual report 02-07, Company-X Marketing & Sales Europe, Rival-A annual report 02-07

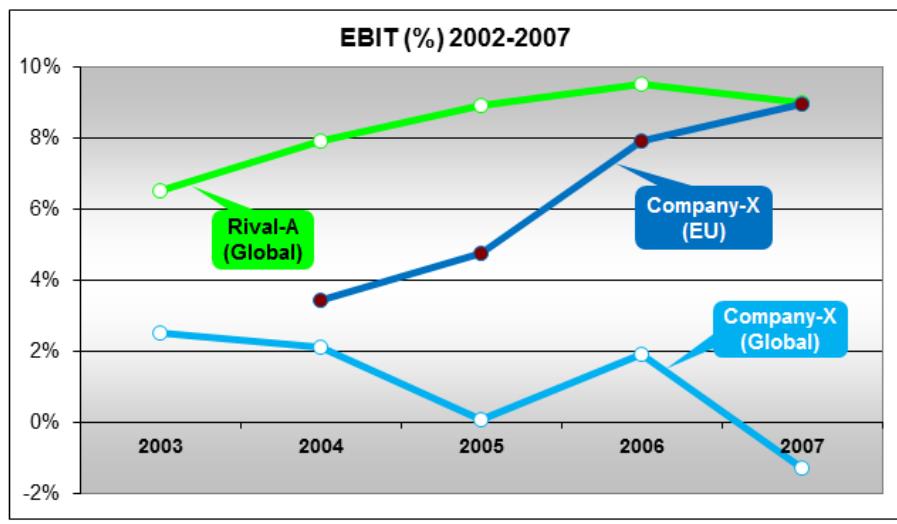
**Ch-3 Figure 15: Year-on-Year Organic Growth Comparison  
Company-X vs. Rival-A in Europe**

In terms of a profitability benchmarking (return on sales or EBIT in %), due to data availability issues, the following data were used: Rival-A Global<sup>4</sup> data (from its annual reports), Company-X Global data (from its annual reports) and Company-X European

<sup>3</sup> Since the major target companies including Company-X1 and Company-X2 used to be privately owned, their revenue data in Europe before the integration (2001 and before) were not available in a consistent manner. Therefore, the benchmarking exercise can cover only during and after the integration period.

<sup>4</sup> This is because Rival-A annual reports do not disclose its profitability by region. However, since Rival-A has been generating over 80% of its business in Europe, it would make sense to compare Company-X Europe against Rival-A (global).

data (from its internal source<sup>5</sup>). As shown in the figure below (**Ch-3 Figure 16**), it is obvious that Company-X Global suffered from its poor profitability due to its heavy loss-making business in the USA (after the controversial acquisition<sup>6</sup> of Company-X4), compared to Rival-A Global which improved its profitability year after year up to a 9-10% level. However, it is also apparent that Company-X Europe improved its profitability year after year and finally caught up with Rival-A in 2007, five years after the launch of the integration programme. It is noticeable that there was a clear sign of margin improvement during the integration period, although its organic revenue did not grow.



Source: Company-X annual report 03-07, Company-X Marketing & Sales Europe, Rival-A annual report 03-07

**Ch-3 Figure 16: EBIT Comparison: Company-X vs. Rival-A**

### **3) Company-X Europe: Evidence from Internal Data**

As stated earlier, the financial performance data of Company-X Europe used so far were a combination of official data and the author's estimation from several sources. These would be reasonably accurate but obviously different from those recognised in the organisation. Therefore in order to understand Company-X employees' perception during the integration, the key (financial) performance indicators (KPIs) were analysed using only internally reported numbers.

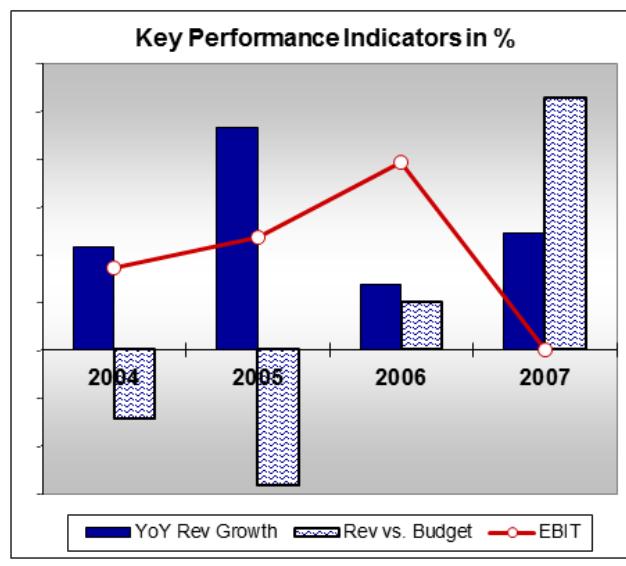
<sup>5</sup> Due to management data visibility issues caused by the integration in Company-X Europe, its profitability data in 2003 were not available.

<sup>6</sup> The acquisition and integration of Company-X4 in the USA was perceived very negatively by almost all the market analysts. This is outside this research scope but is explained in the Documentation Information section.

Highlights from the revenue development analysis from the internal data are:

- The company's revenue consists of, among other things, two major service categories: premier services (formerly offered by Company-X1) and standard services (formerly offered by Company-X2),
- Revenue from the premier services was relatively stable during and after the integration, but that from the standard services declined in the same period,
- The company launched a new international standard service in 2005, which brought additional revenue (50% of this service category in the year).

The figure below (**Ch-3 Figure 17**) shows the evolution of financial KPI's: year-on-year revenue growth rate (%), achievement (in %) versus original revenue target and actual profitability (EBIT in %). The organisation recorded relatively healthy revenue growth in both 2004 and 2005; however, it did not achieve revenue target, which means that its business did not grow as originally planned. It was 2006 when the organisation showed signs of turnaround internally by achieving its revenue target and improving its profitability.



Source: Company-X Markeing & Sales Europe

**Ch-3 Figure 17: Financial Performance, Company-X in Europe**

#### **4) Company-X Europe: Revenue from European Key Accounts**

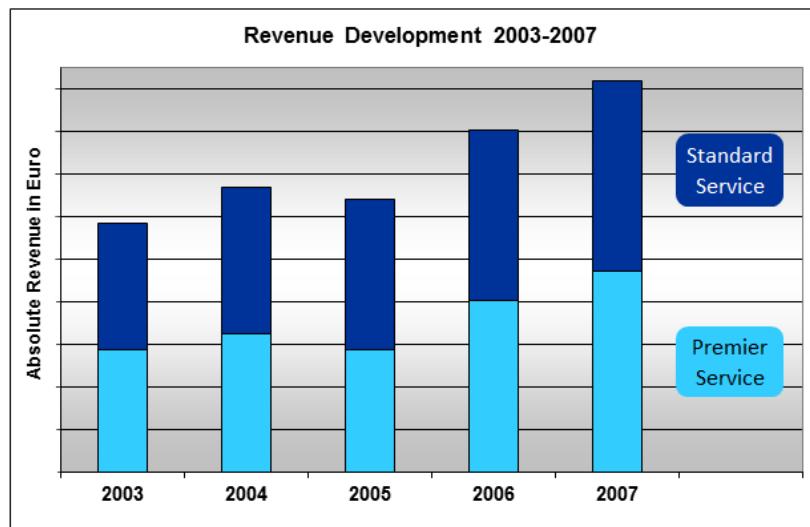
Company-X Europe formed a pan-European account management organisation in late 2003 to manage multinational customers in the region. There were several changes in its customer portfolio over time but 20 customers stayed on for five years (2003-2007).

Since they are the primary targets of the customer interviews in a later stage of this study, Company-X revenue development from the 20 European Key Accounts was analysed by generic service category: premier services and standard services.

As shown in the figures below (**Ch-3 Figure 18 & Ch-3 Figure 19**) the revenue from the 20 European Key Accounts grew consistently at a very high pace (15-25% except 2005). Here is a summary of generic findings:

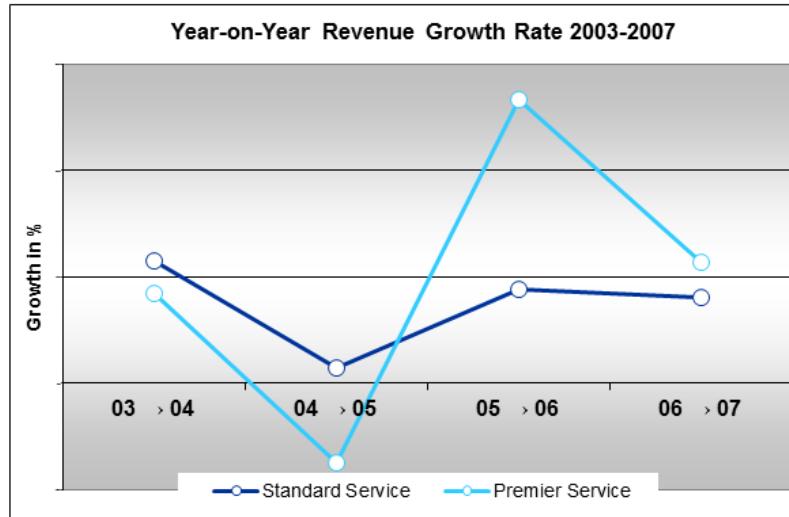
- 2004 was a good year for both standard and premier services, presumably due to the start-up phase of the new pan-European account management organisation,
- 2005 was a bad year, especially for premier services (negative revenue growth vs. last year), presumably due to the integration issues,
- 2006 was a very good year for premier services, presumably due to recovery from the integration issues, and a good year for standard services,
- 2007 was another good year for both standard and premier services.

Eight out of 20 European Key Accounts were ‘down-traders’ in 2004, 12 in 2005, two in 2006 and four in 2007. As a rule of thumb, 10-20% of customers ‘down-trade’ anyway in a business as usual situation, but it is noteworthy that half of the European Key Accounts ‘down-traded’ in 2005.



Source: Company-X Marketing & Sales Europe, adapted by the author

**Ch-3 Figure 18: Company-X Revenue Development, EU Key Accounts**



Source: Company-X Marketing & Sales Europe, adapted by the author

**Ch-3 Figure 19: Year-on-Year Revenue Growth Rate, EU Key Accounts**

### 5) Summary: Implications from the Financial Performance Data

The following is a summary of implications from the organisation's financial performance data during and after the integration:

- The global revenue data (**Ch-3 Figure 13, Ch-3 Figure 14**) show that the organisation recorded a decline in its organic revenue globally during the integration period (2003-2005). This implies that the large scale integration of acquired companies weakened the group's normal business activities, and thus damaged its organic growth on a global scale.
- The benchmark against Rival-A (**Ch-3 Figure 15, Ch-3 Figure 16**) shows that:
  - The organisation recorded much lower organic revenue growth than Rival-A did and it was 2006, four years after the launch of the integration programme, when the organisation started to show signs of recovery. This implies that it lost substantial business opportunities during the long integration period.
  - The organisation in Europe improved its profitability year after year and finally caught up with Rival-A in 2007. This implies that it focused on cost control or indeed cost-cutting at the expense of revenue growth.
- The internal financial data (**Ch-3 Figure 17**) indicates that the organisation missed its revenue target for two consecutive years. This may imply that a

general sense of negativity was spreading through the organisation at least in 2004-2005.

- The revenue data of the European Key Accounts (**Ch-3 Figure 18, Ch-3 Figure 19**) show that the segment grew consistently except in 2005 when half of the European Key Accounts ‘down-traded’. This implies that many customers perceived some kind of negative effects at least in 2005.

## 2. Market Share

Next to the financials, market share is one of the most important and commonly used indicators in the logistics industry to assess the success of a particular company (Transport Intelligence, 2006). Here follows a comparison of the organisation’s estimated market share against that of two external information providers: DataMonitor ([www.datamonitor.com](http://www.datamonitor.com)) and CEP Research ([www.cep-research.com](http://www.cep-research.com)) in the key European markets<sup>7</sup> (**Ch-3 Table 5**). Although there are some differences in the estimated market size and top player ranking, there is a complete consensus on the market position of Company-X — number one in the United Kingdom and Germany, and number two in France in 2005. Furthermore, the following five players dominate the logistics market in those countries: Company-X, Rivals A, B, C and D.

	United Kingdom			Germany			France		
	Company-X Internal	Data Monitor	CEP Research	Company-X Internal	Data Monitor	CEP Research	Company-X Internal	Data Monitor	CEP Research
Company-X	1	1	1	1	1	1	2	2	2
Rival-A	1	2	2	4	6	6	2	3	3
Rival-B	3	4	3	2	2	3	4	9	4
Rival-C	4	5	4	3	3	2	1	1	1
Rival-D	2	3	5	5	4	5	5	5	5
MKT Size (€bn)	7.0	7.2	5.9	9.0	10.6	8.9	4.8	6.1	5.8

Source: Company-X Market Research Centre, DataMonitor <[www.datamonitor.com](http://www.datamonitor.com)> and CEP Research <[www.cep-research.com](http://www.cep-research.com)>

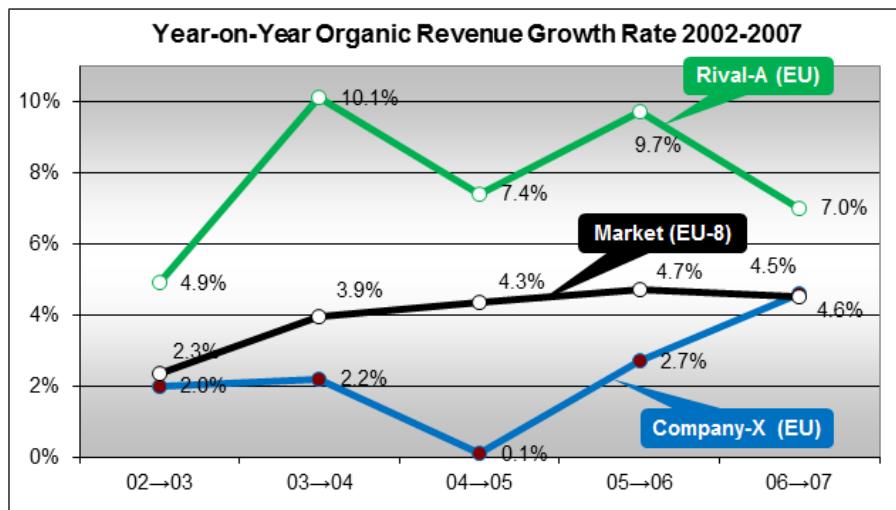
**Ch-3 Table 5: Market Position (2005 Ranking) in the Key European Markets**

It is clear that Company-X Europe had a leading position in the European logistics market in 2005. But it is also clear that the market position was a snapshot after the series of M&A activities originated in 1997. Considering the objective of this study, it

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<sup>7</sup> DataMonitor ([www.datamonitor.com](http://www.datamonitor.com)) estimates that the top three countries, the United Kingdom, Germany and France, represented about 61% of the European logistics market in 2005.

would be necessary to investigate the organic evolution of the company during the integration period. As shown in the figure below (**Ch-3 Figure 20**), between 2003 and 2007, Rival-A organically grew by 7.8% p.a. on average and the market (top-8 European countries or EU-8) is estimated to have grown by 3.9% p.a. on average, whereas, Company-X organically grew by 2.3% p.a. on average.



Source: Company-X annual report 02-07, Company-X Marketing & Sales Europe, Rival-A annual report 02-07, Datamonitor 05 & 08

**Ch-3 Figure 20: Organic Growth Comparison  
Company-X vs. Rival-A in Europe and Market**

When a company's year-on-year revenue growth rate is lower than that of the market, it indicates a loss of its market share. Therefore, it is clear that Company-X lost its market share, while Rival-A gained its market share between 2003 and 2006. In addition, internal (confidential) marketing data indicate that Company-X lost its premier service market share against Rival-B during the same period by a 2-3% point.

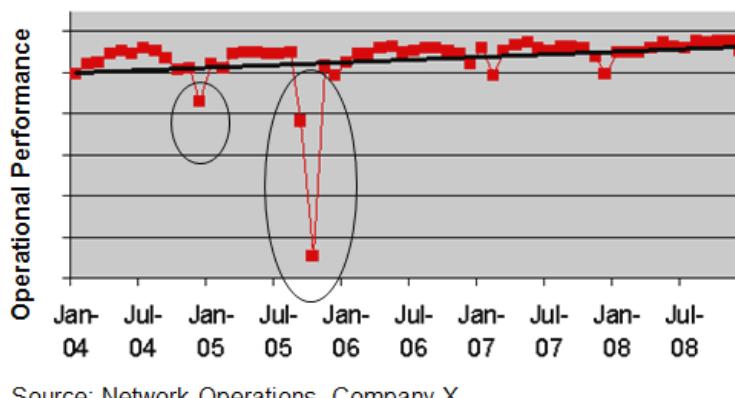
The data above confirm that the organisation became the most powerful player in the industry thanks to its series of acquisitions. However, it also indicates that the organisation lost its market share to its rivals, namely Rival-A and Rival-B, during the post-M&A integration period, probably due to integration related issues.

### **3. Operational Performance**

There are two common ways to measure operational excellence of a logistics service provider (Transport Intelligence, 2006): 1) 'speed' of delivery, or transit time and 2)

'reliability' of delivery, or on-time delivery performance (in %). In terms of operational performance, the organisation and its customers commonly measure the latter (on-time delivery performance in %), therefore this study follows the same method.

As stated earlier, the organisation's major service categories during the integration period were premier services (formerly offered by Company-X1) and standard services (formerly offered by Company-X2). Concerning historical operational performance data, only the premier service part was available due to the data visibility issue<sup>8</sup>. The figure below (**Ch-3 Figure 21**) shows monthly operational performance of the premier services. As expected, there were clear signs of operational disruptions during the integration period, between December 2004 and January 2005 (about 2 months), and between September 2005 and December 2005 (3-4 months).



Source: Network Operations, Company-X

**Ch-3 Figure 21: Company-X Monthly Operational Performance**

The data above show only the services to/from the USA, therefore practical impacts on the European business were relatively limited. However, considering the fact that both operational disruptions occurred during the year-end peak seasons, one can assume that psychological impacts on both Company-X employees and customers were substantial. Furthermore, there are several points to be highlighted in terms of operational performance during the integration. First, some interviewees claimed operational disruptions to the premier services in Italy, the UK and France; however, those local issues were not visible in the centrally available operational data. Second, many interviewees claimed operational disruptions to the standard services, but as

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<sup>8</sup> Since the standard services were managed by over 20 different systems from the former companies (Company-X2), there was no operational data visibility in the organisation centrally.

explained earlier, those operational data were not centrally available. Finally, the European logistics hub migration in late 2007 - early 2008 also caused some operational disruptions in Europe; however, since it was after the official integration period (2003-2005), it was decided not to investigate these operational performance data.

## **4. Employee Satisfaction/Perception**

### ***1) Employee Opinion Survey***

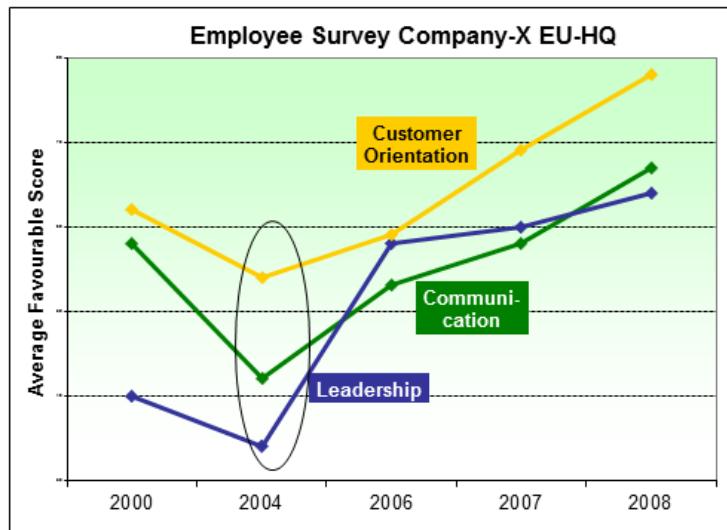
The organisation has been conducting an employee opinion survey since 1998<sup>9</sup> to monitor its employees' perceptions toward several KPI's. Here are some remarks about the employee opinion survey:

- The organisation did not conduct employee opinion survey in 2001, 2002, 2003 and 2005, therefore the figure below should be seen just as a reference.
- KPIs were selected each year, out of which three KPIs (customer orientation, communication and leadership) had been in place since 2000.
- The employee opinion survey scores for the KPIs were calculated by taking average favourable scores (mean) from 5-10 questions.
- The data shown in this study cover approximately 500 employees at the organisation's European HQ with a response rate of 60-70% each year.

As shown in the figure below (**Ch-3 Figure 22**), the employee opinion survey scores for the KPIs dropped considerably in 2004 when the organisation was in the middle of the integration and it took two-three years to recover the scores. This implies that most employees were not happy with the management and internal communications, and perceived that the organisation somewhat lost customer focused attitude during the integration. All the scores recovered to the pre-M&A/integration level in 2007, two years after the completion of the integration.

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<sup>9</sup> The employee opinion survey 1998 data were not available.



Source: HR, Company-X Europe

**Ch-3 Figure 22: Employee Opinion Survey, Company-X Europe**

## 2) M&A Impact Survey

The author conducted an M&A impact survey in the organisation in mid-2007 in a retrospective manner as part of the Cranfield DBA methodology programme (quantitative data analysis assignment) as follows:

- Respondents: 56 employees from the Marketing & Sales Department, Company-X European HQ.
- Questions: Perceptual differences from the pre-M&A/integration environment (score = 0, benchmark) with -3 ~ +3 rating — 1) 2003-2004, 2) 2005-2006 and 3) 2007.
- Variables: 50 variables under five categories (organisational issues, operational performance, people performance, customer relationship and competitive response) were tested — 30 variables were perceived as significantly different from the pre-integration environment.

In summary, the survey results indicate the employees' perceptions as follows (**Ch-3 Table 6**):

- the integration brought many organisational issues (e.g. cultural conflicts, politics, rumours, never-ending changes, short-term/cost orientation and ineffective communications), which still existed after the completion of the integration programme,

- operational & people performance as well as perceived customer relationship got worse during the integration, most of which recovered five years after the launch of the integration programme,
- competitive responses got tougher during and even after the integration.

Converted Mean Comparison (Scores from negative questions are converted)			Mean [Difference from pre-M&A/integration environment]		
			03 - 04	05 - 06	07
Organisational issue	Uncertainty	Bright future for Company-X		0.68	
		Trust in mgt	-0.88		
		Career opportunity	0.82	0.68	1.04
	Org. Culture Politics	Cultural conflict	-1.23	-1.00	-0.59
		Org. politics	-1.24	-0.91	-0.81
	Rumor	Rumors flying	-1.69	-1.32	-1.28
	Stress	Stress while working	-0.92	-0.68	
	Changes	Changes in strategy	-1.49	-1.60	-1.46
		Changes in process	-1.63	-1.28	-0.98
		Changes in org. structure	-1.90	-1.74	-1.81
	Mgt Focus	Short-term focus	-0.63	-1.16	-1.03
		Mgt keen on cost-cutting	-1.27	-1.42	-1.49
	Communication	Bottom-up com. effective	-0.90	-0.89	
		X-functional com. effective	-1.13	-0.82	-0.56
Operational Performance	Competitive OPS speed		-0.97	-0.90	
	Competitive OPS flexibility		-1.03	-0.91	
	Competitive OPS quality		-0.97		
	Competitive product portfolio		0.44	0.65	1.00
	Competitive price offering		-0.40		
People Performance	People productivity		-1.08	-0.54	
	People with confidence				0.32
	Talent retained		-1.33	-1.36	-0.95
Customer Relationship	Frontline's spend time with customer		-1.24	-0.66	
	Customer focus		-1.36	-0.81	
	Customers understand Company-X capability		-1.44	-1.07	
	Many prospects			0.46	0.60
	Customers are loyal		-0.95	-0.58	
Competitive Response	Great no. of competitive attacks		-1.51	-1.27	-1.03
	Attacks are intense		-1.53	-1.24	-1.16
	Company-X is vulnerable to attacks		-1.64	-0.97	-0.57

■ One-Sample T-Test (Test Value = 0): Sig. < 0.05 --- Negative  
■ One-Sample T-Test (Test Value = 0): Sig. < 0.05 --- Positive

**Ch-3 Table 6: Marketing & Sales Employee Perception, Company-X in Europe**

## 5. Findings from the Archival Records

To conclude this section, a brief summary of the key findings is provided. First, the financial data show that the organisation's revenues stagnated and it missed the top-line target during the integration, even though it improved profitability. Second, the market data indicate that although the organisation gained the number one position in the industry, as a result of its series of acquisitions, it lost overall market share against its

rivals during the integration. Third, the operations data imply that there were operational disruptions during the integration. Finally, the employee surveys reveal that there were strong negativities within the organisation during the integration, which is also implied by the financial/operations data above.

Therefore, the following starting point assumptions were clearly supported by the archival records:

- The organisation suffered financially and operationally during the integration,
- As a result, it lost its market share substantially during the integration,
- Its employees perceived the integration (very) negatively.

## VII. DOCUMENTATION INFORMATION (QUALITATIVE DATA)

As stated in **V. Data Analysis Method**, the following is the set of questions explored in Company-Y annual reports (since 1997), IR (investor relations) publications, internal presentations, analyst reports (since 2002), journal articles (selected through Google Scholar Search) and news articles (selected through Google News Archive Search):

- What was the original aim of the series of acquisitions?
- How did the market (i.e. industry/financial analysts that represent various stakeholders) perceive the acquisitions?
- How did the management manage the integration?
- How did the market (industry/financial analysts) perceive the integration?

This section is divided into four parts in chronological order — 1) aim of the M&As, 2) pre-integration, 3) mid-integration and 4) post-integration — with data extracts, while detailed information (extended quotations and figures) as well as data source (citations and pages) can be found in **Appendix F**.

**Note:** Company names and some data/information are masked for confidentiality reasons.

## **1. Aim of The M&As**

First, to clarify the original aim of the series of acquisitions, Company-Y annual reports and IR publications were investigated. The documentation highlighted the background and key objectives of the M&As, which can be summarised as follows:

- Market liberalisation was the key driver for the aggressive M&A activities,
- The primary aim was to be a global logistics player by building a new transportation network, acquiring a new customer base, restructuring it into a new platform and realising group synergies,
- The ultimate goal was to be the one-stop shopping provider for customers' global logistics needs.

Second, to understand how the market<sup>10</sup> (industry analysts) perceived the series of acquisitions made by Company-Y (a holding company of Company-X), industry journals and news articles were investigated. The articles provided their own understanding of the background and key objectives of the M&As.

Finally, to assess if there was a gap between the two (the management intention and market perception), a data matching exercise was conducted with the following steps — 1) colour-coded the management views (e.g. one-stop shopping = YELLOW), 2) examined each market view if it agreed with the management view, and 3) if there was an agreement, colour-coded the market view.

As indicated in the figure below (**Ch-3 Table 7**), there was no particular gap between the two, which suggests that the management intention was well understood by the market.

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<sup>10</sup> Financial analyst reports became available after Company-Y's IPO (November 2000) but the 'aim of the M&As' were not discussed in their early issues.

Date	Internal (Management) View	Source	Date	External (Market) View	Source
1997	<p>"...the new XXX Act was finally passed ...the liberalization of Europe's XXX markets... Having completed most of the corporate restructuring ...we can now concentrate on our growth strategy."</p> <p>"...internationalization is given highest priority."</p> <p>"The planned acquisition of a 22.5-percent stake in Company-X1 in March 1998, is a move of strategic importance and signals that Company-Y is becoming a serious contender in the global postal and logistics market."</p>	A. Report	1999	"Expansion of Company-Y... can be understood as diversification of the product range... and as an attempt to build up scale and reach economies crucial to become a first tier transport supplier... pursuing single modular sourcing strategies."	Journal
1998	<p>"As competition becomes increasingly global, only those providers will survive that reach beyond their national borders and which offer their customers a wide range of products and services..."</p> <p>"Our collaboration with Company-X1 gives us access to a global network that currently operates in 227 countries around the world."</p> <p>"The global trend on the world's logistics markets is unmistakably toward international one-stop shopping that puts the just-in-time concept into cross-border practice for customers."</p> <p>"...as part of our internationalization strategy we are developing new networks, especially in Europe, through selective acquisitions, participations and collaboration."</p>	A. Report	Sep-00	"...it would create a big new player in the global air-freight market...will be pitted head to head against Rival-B and Rival-C"	News
			2000	"...building a global one-stop shop for logistics services."	Journal
			2002	"Company-Y goes global with Company-X1"	Journal
			Oct-03	"Company-X1, Company-X2 and Company-X3 will all merge by 2005 and will operate under the name Company-X... The aim of the merger is to improve efficiency and co-ordinate processes."	News
			2003	"The liberalisation... has been one of the driving forces behind the high level of M&A activity... This has led the... Company-Y to embark on extensive buying campaigns..."	Journal
			2003	"...Company-Y has implemented the most ambitious expansion plan. By buying Company-X3 and Company-X1, and subsequently a multitude of in-fill companies, it has constructed a global logistics company in just over four years."	Journal
				"...they seek to have the processes and networks in place which can be used where necessary for a limited number of 'blue chip' clients with sophisticated, regional or global logistics needs."	
1999	"Having set up our own companies and acquired stakes in leading service providers in Europe, we now offer our business customers integrated logistics services in currently 18 European countries under our Company-X2 brand."	A. Report		"Shippers that do business globally want to deal with fewer carriers and logistics service providers. ... Company-Y and Rival-A may be the pioneers when it comes to public-private collaboration..."	
2000	<p>"Together [Company-Y and Company-X1] we provide a platform for worldwide services."</p> <p>"...we can use the worldwide customer lists of Company-X1 for other products from our portfolio of services and vice versa."</p>	A. Report		"...it becomes clear that matching the breadth of coverage and infrastructure of the postal services with the expertise, market savvy, and innovation of the private parcel delivery and logistics companies creates a winning combination for shippers."	Journal
2001	<p>"... Company-X1 will bring another million business customers."</p> <p>"We will focus in particular on the restructuring and integration of Company-X1 into the Group."</p> <p>"...we will eliminate existing product overlaps with Company-X1 and at the same time use Company-Y's marketing network for Company-X1 products and vice versa."</p>	A. Report	2004	"Company-Y's experience in integrating acquisitions has proven useful in getting the new company branded and out in the market. This acquisition gave Company-X an immediate major presence..."	
Apr-02	The management described the following key market trends, based on which Company-Y set its aggressive growth/expansion strategy — Globalisation, Outsourcing and One-stop-shopping.	IR		"Company-X may soon make a play in the LTL trucking market as well and shippers can expect Company-X to put more automation in its hubs and driver larger shipments into its Company-X3 international air freight unit."	Journal
Apr-02	"Company-X1 fits very well into overall group with substantial market synergies"	IR	2005	"Since 1996, Company-Y expanded rapidly both at home and abroad... to become a world leader in the air shipping."	Journal
2002	<p>"...the acquisition of Company-X1 will enable us to continue to globally expand the Group's position and the success of our services."</p> <p>"We are fully integrating the Group's logistics activities under the umbrella of the global Company-X1 brand: both operationally... and organizationally... This means we have fulfilled the most important condition for becoming the leading global provider of logistics services."</p>	A. Report	2006	<p>"This [full integration] also involves closer co-operation between the divisions and cross-selling of product to the extensive customer base which Company-Y hopes will enable it to become a single source for all logistics needs."</p> <p>"Company-X1 has a million customers to which Company-Y can sell European logistics products."</p>	Journal

M&A driver  
global player  
one-stop shopping  
new network  
new platform  
new customer base  
group synergy

**Ch-3 Table 7: Management vs. Industry Views (Aim of the M&As)**

## 2. Pre-Integration

First, to clarify the publically communicated integration plan and challenges, IR publications were investigated. Second, to understand how the market<sup>11</sup> (financial analysts) perceived the integration plan, analyst reports were investigated. Finally, to assess if there was a gap between the two, the arguments from both sides were compared.

The documentation comparison (**Ch-3 Table 8**) revealed that the management took a rather detached approach (e.g. process driven and customer retention as an add-on Marketing & Sales project), whereas the market was more concerned about potential operational disruptions.

Date	Internal (Management) View / Action	Source	Date	External (Market) View	Source
Mar-03	The group-wide post-M&A integration program was officially launched in October 2002. The program consisted of <u>13 initiatives for 6+1 functions</u> — Marketing & Sales, Air Network, Ground Operations, Finance & Accounting, IS, HR and Logistics.	IR	Oct-02	"This [integration program] is a <u>massive task</u> and if the service quality slips as networks are radically changed, <u>customers may prove unforgiving</u> ."	Analyst
	The key successful integration factors: <u>structural blueprinting</u> , <u>functional blueprinting</u> , <u>the set-up of the integration organization and processes</u> , <u>the performance management</u> , and <u>communication</u> .		Nov-02	"This [ <u>one-stop shop concept</u> ] primarily involves an integrated network with a dense operation, with a <u>fully integrated sales and marketing function</u> ..."	Analyst
	Full business integration is the biggest challenge in Company-X Europe. <u>To avoid integration dip</u> , there is an on-going focus on <u>value improvement program run by each merging partner</u> .			"A key risk... is that the <u>premium service</u> ... associated with Company-X1 products – <u>gets diluted</u> when the service offers incorporates Company-X3 heavy freight, a business that we believe is barely profitable."	
	Customer retention project was put in place in Company-X Europe, 5 months after the launch of integration program: 1) Immediate actions for <u>businesses at risk</u> , 2) <u>Key account integration</u> , 3) <u>Frontline staff retention</u> , 4) <u>Proactive communication</u> and 5) <u>Progress monitoring</u> .			"If a service provider gets it wrong, the <u>service quality</u> suffers, <u>customers leave</u> for the competition and operational gearing bites."	
	Milestone of 'Turning Vision into Reality' — 2003: Prepare and launch integration program (short-term impact initiatives, including <u>Company-X re-branding</u> , <u>organisational re-design</u> , procurement synergies and <u>top-line growth</u> program). 2004: Introduce integrated offering ( <u>Marketing &amp; Sales</u> key initiatives). 2005: Establish the <u>new platform</u> (key initiatives for Network & Operations, Finance/Accounting, IS and HR). 2006: Finalise the integration (finalisation of <u>country deployment</u> and <u>integration of domestic line-hauls &amp; terminals</u> ).		Aug-03	"The integration of networks will be challenging, and a disruption of service could result in the loss of customers in the short term."	Analyst
Nov-03		IR		"If Company-Y's restructuring is a success, a <u>fully integrated Company-X</u> will be an extremely powerful and dominant player, but <u>it will take time</u> . Rival-B became profitable in Europe after 24 years and it took Rival-A 7 years before it made its WACC."	

**Ch-3 Table 8: Management vs. Capital Market Views (Pre-Integration)**

<sup>11</sup> There are no publicly available sources, other than the financial analyst reports, which discussed the organisation's integration plan before the launch of the integration programme.

Aside from the management views summarised above, the Head of Operations and Head of Marketing & Sales at Company-X highlighted the major integration challenges as follows:

*"At present we operate parallel cross-border networks and a multitude of independent domestic networks... We have different divisional processes... supported by a wide range of heterogeneous IT applications... The background of the three divisions differs strongly...."* (Company-Y, Mar-2003: P5)

*"Competition may aim to strike when we are expected to be internally focused (or customers feel we do not have time for them)... Sales people may enter into 'competitive behaviour' with each other..."* (Company-Y, Mar-2003: P17)

The challenges seem to be real and serious but clear measures were not put in place (or at least not presented publically), which presumably made the market operationally sceptical about the integration.

### **3. Mid-Integration**

First, to clarify the publically communicated integration progress, IR publications were investigated. Second, to understand how the market<sup>12</sup> (financial analysts) perceived the integration progress, analyst reports were investigated. Finally, to assess if there was a gap between the two, the arguments from both sides were compared.

The documentation comparison (**Ch-3 Table 9**) revealed that, as expected, the management emphasised the bright side, such as the new service launch, completion of the salesforce integration and on-going terminal consolidations, whereas the market pointed out the dark side such as operational disruptions, stagnating revenues and losing market share. In reality, the market view is fully supported by the previous Archival Record section (Financial Performance, Market Share and Operational Performance).

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<sup>12</sup> There are no publicly available sources, other than the financial analyst reports, which discussed the progress of the integration programme.

Date	Internal (Management) View / Action	Source	Date	External (Market) View	Source
Oct-04	2 years progress update in Europe — Marketing & Sales: The first integrated international standard service <u>was launched</u> , <u>customer service centres have been co-located</u> , and <u>salesforce integration is well underway</u> . Network & Operations: <u>Harmonised operational process is being implemented</u> and <u>countries have consolidated terminals</u> , where applicable. Finance & Accounting: New standard accounting system is being implemented. IS: New IS service centre has opened in Prague. HR: New payroll system is being put in place.	IR	May-05	"...the company is currently in <u>restructuring mode</u> in Europe... the company was through the <u>worst with regards to growth</u> ... Company-Y's performance needs to be contrasted with that at Rival-A, where growth in Europe has been double-digit for the past four quarters. ...One of the key concerns with the integration program was that <u>costs may come out but would revenues be lost in the process</u> ."	Analyst
Feb-05	2 years and half progress update in Europe — Marketing & Sales: The new international standard service <u>is up and running</u> , <u>salesforce integration has been completed</u> and <u>customer service is being integrated</u> . Network & Operations: <u>Terminals are being consolidated</u> and <u>cross-border network synergies are expected</u> . Finance & Accounting: Harmonisation of the financial systems is underway. IS: New IS service centre in Prague is now operational. HR: HR information system is being developed and effective people management is expected.	IR	Aug-05	"Until now, the national networks have essentially been run on a stand-alone basis, with only 10-15% of business emanating from cross-border flows. The main criterion of Company-Y's <u>restructuring programme</u> in 2005 is to <u>integrate these networks</u> ."  "...we do not believe Company-X Europe can attain a margin comparable to Rival-A's. However, <u>once the national networks have been integrated</u> , we expect <u>profitability to improve</u> ."  "...we believe Company-X is currently <u>losing market share in Europe</u> , probably to Rival-A and Rival-B. Rival-A has grown its European revenue by an average of 10.5% since 2003 to mid-2005, compared with Company-X Europe's +4.3% y/y in FY 04 and -0.4% in the first half of 2005. ...we believe it [Rival-B] to be in excess of 10% off a lower base."	Analyst
Jan-06				"Company-X Europe is <u>undergoing significant disruptions</u> because it is <u>currently integrating the national networks</u> , as well as planning to move Company-X's traditional air hub... it should not be surprising that <u>no revenue growth was attained</u> in the first half of 2005, nor is it surprising that management expects <u>revenue to be static</u> for FY 05."	Analyst
				"...it has been a <u>very disappointing revenue</u> performance that has been central to Company-Y's EBITA shortfall within Europe. ...it is clear that <u>underlying growth</u> within Europe... has been <u>minimal</u> throughout the duration of the integration programme."	
				"While Company-Y may have 'broken the back' of its European network integration, the <u>projects will be ongoing through 2006</u> and... into 2007. ...the underlying level of <u>growth has been weaker still</u> ."	

**Ch-3 Table 9: Management vs. Capital Market Views (Mid-Integration)**

#### **4. Post-Integration**

First, to clarify how the management reflected the integration, IR publications and internal management presentations were investigated. Second, to understand how the market<sup>13</sup> (industry/financial analysts) perceived the integration, analyst reports and industry journals were investigated. Finally, to assess if there was a gap between the two, the arguments from both sides were compared.

<sup>13</sup> Both sources (industry and financial analysts) are available concerning the organisation's post-integration overview.

This time, the management shared realistic views internally and publically, presumably due to the change in management and associated political reasons. Therefore, the documentation comparison (**Ch-3 Table 10**) indicated some kind of agreement between the two — the integration was highly complex, its plan was theoretical and operationally weak, it caused substantial damage to the organisation and further restructuring would be required.

Date	Internal (Management) View / Action	Source	Date	External (Market) View	Source
Dec-06	The management offered reflections on the series of M&As — Company-X has been built from over 40 different companies worldwide. In Europe, the <u>biggest challenge has been to integrate multiple diverse business models, processes and systems in over 20 countries</u> . Some <u>2-3 years of significant restructuring and integration are still required</u> before acceptable margins will be achieved in the more difficult areas.	IR	2004	"...what do IT directors do when there are four businesses using 113,000 desktop PCs, 2,600 application servers, 2,500 databases and 1,500 applications to merge? Add to that 60,000 e-mail accounts, 290 server locations and 18 regional datacentres and it is clear that Company-X, which faced exactly that scenario, had a <u>substantial integration challenge</u> ."	Journal
Feb-07	The management presented a case study of Company-X France internally: - The integration strategy was <u>theoretical and operationally flawed</u> . - The starting point (pre-integration) was <u>more complex than initially considered</u> . - Major integration activities failed (e.g. SAP platform and organization, integration of 3 networks and new production system). - It became <u>internally focused organization</u> , employee morale declined and union pressure surged due to repeated restructuring. - Revenue declined due to poor service quality.	Internal	Jun-06	"...the key positive we took away from the Q1 06 results was the <u>acceleration in organic growth [6.7%]</u> for this region. ...after a hugely disappointing 2005, we still see this as a very encouraging sign that Company-Y has <u>turned the corner</u> ."	Analyst
May-07	The management stated that the huge number of companies acquired in the last ten years has led to a <u>highly complex integration effort</u> . He urged the employees to shift their energies from the predominant "integration focus" to the "customer focus".	Internal	Aug-06	"We still have <u>concerns over the status of the restructuring programme in Europe and whether the European business is fully integrated</u> , given that the legacy companies bought by Company-Y to create its pan-European Express business have <u>varying levels of service quality and mix</u> ."	Analyst
			2006	"One of the results of integration issues was that <u>customer service deteriorated</u> and... it was <u>losing credibility</u> as well as <u>incurring substantial costs in service recovery</u> ."	Journal
			Jan-07	"...Company-X in its current form is the result of a high number of acquisitions and the business has been facing a <u>long period of tumultuous integration initiatives</u> that have <u>impacted every element of service and operations</u> (product definitions, associated tariffs, sales and marketing, pick-up-and-delivery networks, line hauls, hubs, etc.). ... this integration process was <u>too heavily influenced by consultants</u> rather than those with operational experience..."	Analyst

**Ch-3 Table 10: Management vs. Industry/Capital Market Views (Post-Integration)**

## 5. Findings from the Documentation Information

To conclude this section, a brief summary of the key findings is provided. First, the primary aim of the M&As was to be a global logistics player by building a new transportation network, acquiring a new customer base, restructuring it into a new platform and realising group synergies, and ultimately to be the one-stop shopping provider for customers' global logistics needs. Following the well-known M&A typology (Bower, 2001; Schweiger and Very, 2003), M&As can be classified as 'product/market extension M&As' in the beginning when forming Company-X2 outside its home country

and then later as ‘consolidation M&As’ when acquiring Company-X1 and integrating all the acquired companies. This aim of the acquisitions, especially the one-stop shopping concept, was fully understood by the market. Second, there was a gap between the management and market view in terms of the pre-integration planning. The market was concerned about the management’s integration plan and potential operational disruptions during the integration. Third, there was also a gap between the management and market view in terms of the mid-integration progress. Although the organisation emphasised steady progress, the market pointed out operational disruptions, stagnating revenues and losing market share. Finally, the management revealed some facts and realistic views after the integration — the integration was highly complex, its plan was theoretical, it caused substantial damage to the organisation and further restructuring would be required. This view was endorsed by the market.

Therefore, the following starting point assumptions were clearly supported by the documentation information:

- The aim of the acquisitions was well understood by the market,
- But the integration (i.e. planning and progress) was perceived negatively by the market.

## VIII. INTERVIEWEE PROFILE

Following the pilot study, 20 supplier KAMs were interviewed first, between October 2008 and February 2009 (**Ch-3 Table 11**):

ID	Initial	Title	Former Org.	Nationality	Overall	Interview Date
X1	MP	Former Key Account Manager	X1	FI	Neutral	13-Oct-08
X2	GS	European Account Director	X1	GB	Negative	14-Oct-08
X3	JMP	European Account Director	X1	FR	Negative	15-Oct-08
X4	BK	European Account Manager	X1	DE	Negative	31-Oct-08
X5	PW	European Account Director	X1	GB	Negative	6-Nov-08
X6	JDV	European Account Manager	X2	FR	Negative	26-Nov-08
X7	CVH	European Account Manager	X1	BE	Negative	2-Dec-08
X8	BP	European Account Manager	X2	NL	Positive	4-Dec-08
X9	AF	European Account Manager	X2	GB	Negative	9-Dec-08
X10	CP	European Account Director	X1	FR	Negative	10-Dec-08
X11	JB	European Account Manager	X2	GB	Positive	11-Dec-08
X12	RR	European Account Director	X2	DE	Negative	12-Dec-08
X13	AS	European Account Manager	X1	NL	Negative	15-Dec-08
X14	PL	VP, European Account Mgt	X1	FR	Negative	7-Jan-09
X15	BV	European Account Manager	X1	FR	Negative	15-Jan-09
X16	TJ	Former Global Account Manager	X1	CZ	Negative	15-Jan-09
X17	WH	European Account Manager	X1	NL	Negative	22-Jan-09
X18	HVB	European Account Manager	X1	NL	Neutral	3-Feb-09
X19	GDC	European Account Manager	X2	BE	Neutral	6-Feb-09
X20	PN	European Account Manager	X1	GB	Neutral	9-Feb-09

**Ch-3 Table 11: Interviewee Profile (Supplier KAM)**

Using business networks of the supplier KAMs above, 14 customer organisations (20 decision makers and influencers) were identified and interviewed between April and July 2009 (**Ch-3 Table 12**). They are all large multi-national corporations representing five key industries and their industry distribution is comparable with the Company-X customer portfolio by industry in Europe.

Company	ID	Initial	Industry	Title	Scope	Country	Business with Company-X	Interview Date
1	C1a	TV	Automotive	Head of Logistics Planning	Europe	NL	Stopped	14-Apr-09
	C1b	TO		Project Manager				
2	C2	EN	Consumer Products	VP, Global Distribution Logistics	Global	DK	Partially decreased	16-Apr-09
3	C3a	JP	Engineering & Manufacturing	Head of Physical Distribution & Transport	Europe	NL	Increased	16-Apr-09
	C3b	KVD		Supply Chain Officer				
4	C4	HB	Life Science & Chemicals	Global Category Director, Logistics	Global	NL	No change	21-Apr-09
	C5	SB		Global Logistics Director		SE	Partially decreased	
5	C6	FD	Engineering & Manufacturing	European Transportation Director	Europe	BE	Increased	28-Apr-09
	C7	MDB		European Warehouse Director				
6	C8	AV	Technology	EMEA Logistics Director	Europe	NL	non customer	18-May-09
7	C9	JH	Technology	Logistics Director, Benelux	Benelux	BE	Partially decreased	27-May-09
8	C10	RS	Engineering & Manufacturing	Transport Manager	Europe	NL	Partially decreased	15-Jun-09
9	C11	EP	Automotive	Senior Manager, Transportation	Europe	BE	Partially decreased	17-Jun-09
	C12	WP		Project Manager, Transportation				
	C13	EN		Operations Manager, Transportation				
10	C14	PK	Technology	Traffic & Logistics Manager	Europe	UK	non customer	17-Jun-09
11	C15	EN	Life Science & Chemicals	Supply Chain Purchasing Director	Europe	FR	No change	22-Jun-09
12	C16	MP	Consumer Products	Supply Chain Director	NL	NL	No change	15-Jul-09
13	C17	HV	Technology	Senior Operations Manager Europe	Europe	NL	No change	16-Jul-09
14	C18	HR	Technology	EMEA Logistics & Operations Manager	Europe	NL	No change	23-Jul-09

**Ch-3 Table 12: Interviewee Profile (Customer)**

## IX. INTERVIEW ANALYSIS (QUANTITATIVE DATA)

As stated in **V. Data Analysis Method**, here is the set of questions explored in the supplier KAM and customer interviews for the quantitative part:

- How is the literature-based conceptual model (**Ch-3 Figure 5**) perceived by business managers (sales managers and customers)?
- What are the key customer relationship variables in the logistics industry in a business as usual situation?
- Are there any missing customer relationship variables from the list, if so what are they?
- What were the key customer relationship variables during the Company-X integration in Europe? — Same as the main research question 2)-1
- If the importance rating of the variables during the integration was different from that in the business as usual, what were the reasons?
- Which of the key customer relationship variables were impacted by the Company-X integration? — Same as the main research question 2)-2
- Why/how were the key customer relationship variables affected by the Company-X integration? — Same as the main research question 3)

### Note:

- Although this section handled quantitative data, it was decided not to apply any statistics techniques for the following reasons: 1) since the number of respondents was relatively low at 34, statistical significance would not be compelling, 2) customer data were fragmented due to opposing forces, which is further discussed later in this section.
- Company names and some data/information are masked for confidentiality reasons.

### **1. Supplier KAM Interview**

As stated in **V. Data Analysis Method**, a guideline to assess the level of importance and impact for the supplier KAM interview data is as follows:

- Phases 2&4: Variables with the importance rating (mean) of 6.0 or higher are regarded as highly influential variables on the customer-supplier relationships.
- Phase 5a: Variables with the impact rating (mean) of +/-0.5 or higher/lower are regarded as key variables positively/negatively impacted by the integration.
- Phase 5b: Variables with the overall implication score (mean) of +/-2.5 or higher/lower are regarded as key variables to understand the impact of the integration on customer-supplier relationships.

### **1) Phase-1: Concept Agreement**

All the interviewees (20 supplier KAMs) endorsed the high level construct, or the 'Relationship Quality – Business Performance Model' (**Ch-3 Figure 5**).

### **2) Phase-2: Importance Rating (B-A-U)**

As shown in the table Supplier KAM-1/4 (**Appendix G**), the following six variables are expected to influence the customer-supplier relationship quality most strongly in the logistics industry in a business as usual situation (mean score out of 1-7 rating):

1. [9] Account management quality (6.4),
2. [12] Expertise/capability (6.3), [13] Customer orientation (6.3),
3. [2] Service performance (6.2), [20] Supplier initiative (6.2),
4. [23] Customer involvement (6.0).

All the 31 listed variables — except [25] Market dynamism, [29] Company size and [30] National cultural difference — were also supported as having a relatively strong influence (the importance rating of 4.0 or higher) on the relationship quality.

### **3) Phase-3: Missing Variables (B-A-U)**

The following eight variables were identified by some of the interviewees as missing variables (similar variables were grouped), out of which 'organisational culture' and 'IT capability' were mentioned by over a quarter of the interviewees:

Missing Variables (Supplier KAM Interview)	# claimed	Ratio vs. Total	ImpO* BAU	ImpO* M&A	ImpA** M&A	ImpO x ImpA
Difference in organizational culture***	6	30%	4.0	5.7	-1.2	-6.7
IT capability	6	30%	5.8	5.8	-0.8	-4.8
Ease of use	3	15%	4.7	6.0	-0.7	-4.3
Supplier's SMT involvement	2	10%	6.5	6.5	0.0	0.0
Consistency in organizational set-up	2	10%	6.0	6.0	-1.0	-6.0
Operational stability	2	10%	4.5	7.0	-0.5	-3.5
Service coverage	2	10%	6.0	6.0	0.0	0.0
Environmental friendliness	1	5%	5.0	4.0	0.0	0.0

\* ImpO = Importance rating --- Mean scores within the interviewees who claimed

\*\* ImpA = Impact rating --- Mean scores within the interviewees who claimed

\*\*\* This variable was claimed by 2 interviewees in BAU and 6 in M&A.

**Ch-3 Table 13: Identified Missing Variables (Supplier KAM)**

In addition to the missing variables, two of the interviewees claimed that [10] Bonding activities should be divided into two variables: 'social bonding' and 'legal bonding' because they are different in importance. This would be a reasonable view, therefore it was decided to split the variable into 10-1: Social bonding, 10-2: Legal bonding in customer interviews.

#### **4) Phase-4: Importance Rating (M&A)**

As shown in the table Supplier KAM-2/4 (**Appendix G**), overall rank order of the variables during the post-M&A integration was more or less the same as that in a business as usual situation (refer to Phase-2) since half of the interviewees (10 out of 20) claimed that the rank order stayed the same. Some interviewees explained (Xxx = Interviewee ID, refer to **VIII. Interviewee Profile**):

*Customer did not change, we changed, therefore the importance rating of the variables stayed the same (X2). Customer did not care whether we were in a process of big changes or not. They required the same level of quality as before even during the integration period... "It's your problem" (X10). ...it was only us that changed in the market (X11).*

However the rest (10 out of 20) pointed out, among other things, the following three variables became more important during the integration period:

- [5] Employees' satisfaction (avg. score 5.1 in M&A vs. 4.9 in B-A-U)

*During the integration people issues increased their importance [because] in a service industry, the key to make business running is people (X14). It's linked with the employee turnover (X15).*

- [7] Communication (avg. score 5.8 in M&A vs. 5.5 in B-A-U)

*Customers wanted to know the practical impact of our integration activities on their shipments, every-day basis. This is not the case in normal situation (X1). Customers were keen to know what was going on inside Company-X and what would be the impact on their shipments (X5). They [customers] were a little bit confused due to the huge amount of information and discrepancies between what they heard from us and what they heard from mass media (X15).*

- [24] Competitive intensity (avg. score 5.1 in M&A vs. 4.95 in B-A-U)

*When we're in the unstable environment, the competition demonstrated their stability to the customer (X14). It is very common in the industry that if our competitors would merge together, we would be ready to investigate what would be happening in the market because there would be a lot of changes inside the merging companies, which would cause a lot of conflicts and crisis within them and then we can easily capture opportunities from their customers (X15).*

On the other hand, some claimed, among other things, that the following three variables became less important during the integration period:

- [14] Complaint handling (avg. score 5.8 in M&A vs. 6.0 in B-A-U)

*Customers who stayed with us did not really care about our complaint handling quality because they selected our services mainly due to our attractive price offerings (X9).*

- [15] Customer status (avg. score 5.5 in M&A vs. 5.7 in B-A-U)

*It did not matter whether the customer status was high or low because we only considered their fit to our new organisational set-up at that time (X9).*

- [20] Supplier initiative (avg. score 6.0 in M&A vs. 6.2 in B-A-U)

*We became a totally new company and I think customers didn't really expect initiative from us before we built a firm relationship (X19).*

Having stated the above, 'Difference in organisational culture' was claimed by six interviewees as important only during the integration.

To summarise, the following six variables are claimed to have influenced the customer-supplier relationship quality most strongly during the integration (mean score out of 1-7 rating):

1. [9] Account management quality (6.4),
2. [2] Service performance (6.3), [12] Expertise/capability (6.3), [13] Customer orientation (6.3),
3. [20] Supplier initiative (6.0), [23] Customer involvement (6.0).

### **5) Phase-5a: M&A Impact Rating**

As shown in the table Supplier KAM-3/4 (**Appendix G**), it is claimed that the following eight variables were most strongly impacted by the integration (mean score out of -2/+2 rating):

1. [2] Service performance (-1.0), [5] Employee satisfaction (-1.0),
2. [13] Customer orientation (-0.8),
3. [9] Account management quality (-0.7), [14] Complaint handling (-0.7), [18] Employee turnover (-0.7),
4. [6] Flexibility/adaptation (-0.6),
5. [24] Competitive intensity (-0.5).

Aside from the negatives, there seemed to be a variable positively impacted by the integration, which was [19] Product/service breadth (+0.8).

### **6) Phase-5b: Overall Implication — M&A Impact on Customer Relationship**

As shown in the table Supplier KAM-4/4 (**Appendix G**), considering the results from Phase-4 (rank-order of the variables during the M&As) and Phase-5 (the M&As impact rating), it has become apparent that the following nine variables can be the key to understanding the impact of the integration on the customer-supplier relationships (mean score out of -14/+14):

1. [2] Service performance (-6.3),

2. [5] Employee satisfaction (-4.9), [13] Customer orientation (-4.7), [9] Account management quality (-4.6),
3. [18] Employee turnover (-4.0), [14] Complaint handling (-3.8),
4. [6] Flexibility/adaptation (-3.1), [24] Competitive intensity (-2.5),
5. [19] Product/service breadth (+4.2).

### **7) M&A/Integration and Customer Relationship Model**

By mapping the quantitative interview data above on to the conceptual framework (**Ch-3 Figure 2**), the ‘M&A/integration and customer relationship model’ was developed (**Appendix I**, 1. Supplier KAM Model).

## **2. Customer Interview**

Compared to the supplier KAM interview data, the customer interview data indicated a wider variance in the M&A/integration impact rating, i.e. less remarkable mean scores in general. To avoid omitting relatively low scores but critical variables, it was decided to change the guideline in **V. Data Analysis Method** for assessing the level of impact for the customer interview data — letting the thresholds down by half for the impacts and overall implications. Here is the new guideline for the customer interview data (no change is made to the importance rating):

- Phases 2&4: Variables with the importance rating (mean) of 6.0 or higher are regarded as highly influential variables on the customer-supplier relationships.
- Phase 5a: Variables with the impact rating (mean) of +/-0.25 or higher/lower are regarded as key variables positively/negatively impacted by the integration.
- Phase 5b: Variables with the overall implication score (mean) of +/-1.25 or higher/lower are regarded as key variables to understand the impact of the integration on customer-supplier relationships.

### **1) Phase-1: Concept Agreement**

All the interviewees (20 customers) endorsed the high level construct, or the ‘Relationship Quality – Business Performance Model’ (**Ch-3 Figure 5**). One interviewee commented:

*That's very true. We gradually build trust and confidence with a supplier, which would lead to total trust. After that they can expect a large increase in their business (C14).*

## **2) Phase-2: Importance Rating (B-A-U)**

As stated in **V. Data Analysis Method**, the customer data were aggregated to the organisation level if two or more respondents (i.e. influencers) were involved per organisation. As for the quantitative data analyses phase 2-5, the customer data (individual inputs) were grouped and averaged out (taking mean score) by company. This means a compromise between a decision-maker and influencer within the customer organisation, which is quite common in business practice.

As shown in the table Customer-1/4 (**Appendix H**), the following five variables are expected to influence the customer-supplier relationship quality most strongly in the logistics industry in a business as usual situation (mean score out of 1-7 rating):

1. [2] Service performance (6.4)
2. [4] Cost, price (6.3), [14] Complaint handling (6.3),
3. [11] Supplier commitment (6.2), [13] Customer orientation (6.2).

All the 32 listed variables — except [10-1] Social bonding, [29] Company size and [30] National cultural difference — were also supported as having a relatively strong influence (the importance rating of 4.0 or higher) on the relationship quality.

## **3) Phase-3: Missing Variables (B-A-U)**

The following 10 variables were identified by some of the interviewees as missing variables (similar variables are grouped), out of which 'IT capability' and 'organisational culture' are mentioned by over a quarter of the interviewees:

Missing Variables (Customer Interview)	No. of companies claimed	Ratio vs. Total	ImpO* BAU	ImpO* M&A	ImpA** M&A	ImpO x ImpA
Supplier's IT capability	6	43%	6.5	6.5	-0.3	-1.6
Difference in supplier's org. culture***	4	29%	n/a	5.5	-1.0	-5.5
One-stop shopping	2	14%	6.7	6.5	1.0	6.5
Supplier's M&A activities	1	7%	6.0	6.0	-2.0	-12.0
Supplier's industry specialization	1	7%	7.0	7.0	0.0	0.0
Supplier's operational structure	1	7%	6.0	6.0	-0.5	-3.0
Availability of on-site service	1	7%	6.0	6.0	1.0	6.0
Lost/damaged shipments	1	7%	7.0	7.0	-1.0	-7.0
Supplier's security control	1	7%	7.0	7.0	-2.0	-14.0
Supplier's innovation	1	7%	6.0	6.0	0.0	0.0

\* ImpO = Importance rating --- Mean scores within the interviewees who claimed

\*\* ImpA = Impact rating --- Mean scores within the interviewees who claimed

\*\*\* This variable was claimed ONLY in M&A

**Ch-3 Table 14: Identified Missing Variables (Customer)**

#### **4) Phase-4: Importance Rating (M&A)**

As shown in the table Customer-2/4 (**Appendix H**), overall rank order of the variables during the post-M&A integration was more or less the same as that in a business as usual situation (refer to Phase-2) since most of the interviewees claimed that the rank-order stayed the same. Some interviewees explained (Cxx = Interviewee ID, refer to **VIII. Interviewee Profile**):

*We have been taking this view [the rank order] for over 10 years, stable and unchanged. One supplier's M&A or integration does not affect our way of thinking (C1). This rating applies to all the transportation providers all the time, so no difference (C6). That's what is important to me and our organisation didn't change during your integration period (C9). We didn't change the criteria when Company-X was in the integration (C17).*

However some pointed out, among other things, the following two variables became more important during the integration period:

- [9] Account management quality (avg. score 6.1 in M&A vs. 5.9 in B-A-U)

*...during mergers and acquisitions, it's important that you have some dedicated people who are very close to the customer (C2). Account manager is the one who helps the transition as a channel to the new organisation, helps us to solve the potential service issues (C8).*

- [18] Employee turnover (avg. score 5.1 in M&A vs. 4.9 in B-A-U)

*Most problems during the integration come from this issue [employee turnover]. Well organised companies, such as Express integrators, can possibly provide consistent service regardless of people issues but others like Freight companies normally experience a complete drop in their service performance (C8).*

Having stated the above, 'Difference in organisational culture' was claimed by four interviewees to be important only during the integration.

To summarise, the following six variables are claimed to have influenced the customer-supplier relationship quality most strongly during the integration (mean score out of 1-7 rating):

1. [2] Service performance (6.4),
2. [4] Cost/price (6.3), [14] Complaint handling (6.3),
3. [11] Supplier commitment (6.2), [13] Customer orientation (6.2),
4. [9] Account management quality (6.1).

### **5) Phase-5a: M&A Impact Rating**

As shown in the table Customer-3/4 (**Appendix H**), it is claimed that the following eight variables were strongly impacted by the integration (mean score out of -2/+2 rating):

1. [2] Service performance (-0.5),
2. [9] Account management quality (-0.4), [13] Customer orientation (-0.4), [18] Employee turnover (-0.4), [31] Psychological contract (-0.4),
3. [6] Flexibility/adaptation (-0.3), [7] Communication/info-sharing (-0.3), [14] Complaint handling (-0.3).

### **6) Phase-5b: Overall Implication --- M&A Impact on Customer Relationship**

As shown in the table Customer-4/4 (**Appendix H**), considering the results from Phase-4 (rank-order of the variables during the M&As) and Phase-5 (the M&As impact rating), it has become apparent that the following eight variables can be the key to understanding the impact of the integration on the customer-supplier relationships (mean score out of -14/+14):

1. [2] Service performance (-3.3),
2. [13] Customer orientation (-2.8),
3. [9] Account management quality (-2.5),
4. [18] Employee turnover (-2.4), [31] Psychological contract (-2.4),
5. [6] Flexibility/adaptation (-1.6),
6. [7] Communication/info-sharing (-1.5), [14] Complaint handling (-1.5).

### **7) Trading Records and Perceived Integration Effects**

To test one of the starting point assumptions (there was an interrelationship between the customer's trading record and perceived integration effects during the integration), the data were compared between the Company-X trading records and the customer interview data (overall implication scores). First the 14 customers were divided into two groups (eight 'down-traders' and six 'up-traders') based on their trading records with Company-X during the integration period. Then the overall implication scores (mean scores) were sorted by variable and by group. The result is shown in (**Ch-3 Table 15**):

No.	Variable	ImO x ImA Score	
		Down-trading Customers	Up-trading Customers
1	Pre-service expectation	-0.6	-0.8
2	Service performance	-5.3	-0.7
3	Customer benefits	-0.8	0.4
4	Cost, price	-1.9	2.8
5	Employees satisfaction	-1.4	0.0
6	Flexibility, adaptation	-2.7	-0.1
7	Communication, info-sharing	-2.2	-0.5
8	Fairness, benevolence	-0.8	-0.7
9	Account mgt quality	-4.7	0.5
10-1	Social bonding activities	-0.2	0.0
10-2	Legal bonding activities	0.0	0.0
11	Supplier commitment	-2.0	4.0
12	Expertise, capability	0.3	0.5
13	Customer orientation	-4.8	-0.1
14	Complaint handling	-2.1	-0.7
15	Customer status	-2.4	1.4
16	Multi-channel integration	-1.9	0.0
17	Supplier reputation	0.3	0.0
18	Employee turnover	-2.1	-2.8
19	Product/service breadth	0.4	1.0
20	Supplier initiative	-1.3	0.5
21	Acceptable alternatives	-0.4	0.4
22	Switching cost	0.0	1.0
23	Customer involvement	0.0	0.0
24	Competitive intensity	0.0	0.5
25	Market dynamism	0.0	0.0
26	Supply complexity	0.0	0.0
27	Relationship length	0.0	0.0
28	Supply importance	0.0	0.0
29	Company size	0.0	0.0
30	Cultural differences	0.0	0.0
31	Psychological contract	-1.5	-3.5
<b>Mean within the customer group</b>		<b>-1.2</b>	<b>0.1</b>

**Ch-3 Table 15: Trading Records and Customer Perceptions**

The ‘down-trading’ group shows negative scores (-1.2), while the ‘up-trading’ group shows positive scores (0.1). Therefore, the assumption was supported — customers who perceived negative effects on the key relationship variables (e.g. service performance, customer orientation, account management and flexibility) stopped or reduced business with the organisation, while those who perceived positive effects on the key relationship variables (e.g. supplier commitment and price) continued or increased business.

### ***8) M&A/Integration and Customer Relationship Model***

By mapping the quantitative interview data above on to the conceptual framework (**Ch-3 Figure 2**), the ‘M&A/integration and customer relationship model’ was developed (**Appendix I**, 2. Customer Model).

## **3. Supplier KAM and Customer Interview (Comparison and Consolidation)**

### ***1) Data Comparison***

As indicated in the table below (**Ch-3 Table 16**), there is a general consensus on the important and impacted variables between the supplier KAMs and customers, although there are some differences in individual rank orders and scores.

No.	Variable	Importance (ImO)		M&A Impact (ImA)		ImO x ImA	
		KAM	Customer	KAM	Customer	KAM	Customer
1	Pre-service expectation	5.1	4.9	0.0	-0.1	0.1	-0.7
2	Service performance	6.3	6.4	-1.0	-0.5	-6.3	-3.3
3	Customer benefits	5.5	5.3	0.1	0.0	0.6	-0.3
4	Cost, price	5.95	6.3	0.1	0.0	0.2	0.1
5	Employees satisfaction	5.1	5.2	-1.0	-0.1	-4.9	-0.8
6	Flexibility, adaptation	5.7	5.8	-0.6	-0.3	-3.1	-1.6
7	Communication, info-	5.8	5.9	0.0	-0.3	0.1	-1.5
8	Fairness, benevolence	5.2	5.5	-0.1	-0.1	-0.6	-0.7
9	Account mgt quality	6.4	6.1	-0.7	-0.4	-4.6	-2.5
10-1	Social bonding activities	4.6	3.5	0.0	0.0	0.0	-0.1
10-2	Legal bonding activities		4.5	0.0	0.0	0.0	0.0
11	Supplier commitment	5.7	6.2	-0.3	0.0	-1.7	0.6
12	Expertise, capability	6.3	5.6	-0.1	0.1	-0.5	0.4
13	Customer orientation	6.3	6.2	-0.8	-0.4	-4.7	-2.8
14	Complaint handling	5.8	6.3	-0.7	-0.3	-3.8	-1.5
15	Customer status	5.5	5.4	0.0	-0.1	0.3	-0.8
16	Multi-channel integration	5.0	5.8	-0.3	-0.2	-1.6	-1.1
17	Supplier reputation	4.95	4.7	0.2	0.0	0.4	0.2
18	Employee turnover	4.8	5.1	-0.7	-0.4	-4.0	-2.4
19	Product/service breadth	5.0	4.4	0.8	0.1	4.2	0.7
20	Supplier initiative	6.0	5.7	-0.4	-0.1	-2.3	-0.5
21	Acceptable alternatives	4.6	5.1	-0.1	0.0	-0.2	0.0
22	Switching cost	5.7	4.8	-0.1	0.1	-0.4	0.4
23	Customer involvement	6.0	5.2	-0.2	0.0	-1.0	0.0
24	Competitive intensity	5.1	6.0	-0.5	0.0	-2.5	0.2
25	Market dynamism	3.8	4.0	0.0	0.0	0.0	0.0
26	Supply complexity	5.3	4.6	0.1	0.0	0.1	0.0
27	Relationship length	4.9	4.7	0.0	0.0	0.0	0.0
28	Supply importance	5.5	5.6	0.3	0.0	1.7	0.0
29	Company size	3.1	4.2	0.0	0.0	-0.1	0.0
30	Cultural differences	3.6	3.5	-0.1	0.0	-0.2	0.0
31	Psychological contract	5.1	5.1	-0.1	-0.4	-0.3	-2.4

Highly important      Important      Highly negative      Negative      Positive

**Ch-3 Table 16: Importance/Impact Score Comparison (KAM vs. Customer)**

In terms of the differences in the importance rating, the important variables with large gaps are shown in the table below (**Ch-3 Table 17**). From the customers' viewpoints, it is noticeable that the competitive factor ([24] Competitive intensity) as well as people factors ([16] Multi-channel integration and [11] Supplier commitment) are considered to be more important than the supplier KAMs think. On the other hand, marketing & sales factors ([22] Switching cost, [23] Customer involvement, [12] Expertise/capability and [19] Product/service breadth) are considered to be less important than the supplier KAMs think. Furthermore, although the gap is not as large, thus not shown in the figure below, there is a tendency that the customers rate [4] Cost/price higher than supplier KAMs do (6.3 vs. 6.0), while the supplier KAMs rate [9] Account management quality higher than customers do (6.4 vs. 6.1).

No.	Variable	Importance (M&A)		
		KAM	Customer	GAP
24	Competitive intensity	5.1	6.0	-0.89
16	Multi-channel integration	5.0	5.8	-0.77
11	Supplier commitment	5.7	6.2	-0.56
19	Product/service breadth	5.0	4.4	0.64
26	Supply complexity	5.3	4.6	0.64
12	Expertise, capability	6.3	5.6	0.68
23	Customer involvement	6.0	5.2	0.77
22	Switching cost	5.7	4.8	0.89

**Ch-3 Table 17: Gap in Importance Rating: KAM vs. Customer**

In terms of the differences in the impact rating, the impacted variables with large gaps are shown in the table below (**Ch-3 Table 18**). First, although both the supplier KAMs and customers agree that the integration negatively impacted [2] Service performance, [14] Complaint handling, [13] Customer orientation, [6] Flexibility/adaptation and [9] Account management quality, the supplier KAMs consider the negative impacts to be greater than the customers do on the whole. Second, the supplier KAMs think that [5] Employee satisfaction and [24] Competitive intensity were negatively impacted by the integration but the customers do not think that way. Third, the customers think [7] Communication and [31] Psychological contract were negatively impacted by the integration but the supplier KAMs do not recognise that. Finally, the supplier KAMs think [19] Product/service breadth was positively impacted by the integration but most of the customers do not agree with that.

No.	Variable	M&A/Integration Impact		
		KAM	Customer	GAP
5	Employees satisfaction	-1.0	-0.1	-0.81
24	Competitive intensity	-0.5	0.0	-0.54
2	Service performance	-1.0	-0.5	-0.49
14	Complaint handling	-0.7	-0.3	-0.40
13	Customer orientation	-0.8	-0.4	-0.31
6	Flexibility, adaptation	-0.6	-0.3	-0.30
9	Account mgt quality	-0.7	-0.4	-0.26
19	Product/service breadth	0.8	0.1	0.68
7	Communication, info-sharing	0.0	-0.3	0.25
31	Psychological contract	-0.1	-0.4	0.33

**Ch-3 Table 18: Gap in Impact Rating: KAM vs. Customer**

## 2) Data Consolidation

Considering the changes made in the integration impact assessment guideline for the customer data, a new guideline for the combined data was created, which is summarised in the table below (**Ch-3 Table 19**):

		Mean score of variable and its implication		
		KAM (original)	Customer (new)	KAM + Customer (new)
Importance (ImO)	> 6: highly important > 5: important		↔ same	↔ same
Impact (ImA)	> 1: very positive > 0.5: positive  < -1: very negative < -0.5: negative	> 0.5: very positive > 0.25: positive  < -0.5: very negative < -0.25: negative	> 0.75: very positive > 0.375: positive  < -0.75: very negative < -0.375: negative	
Overall Implication (ImO x ImA)	> 5: very positive impact > 2.5: positive impact  < -5: very negative impact < -2.5: negative impact	> 2.5: very positive impact > 1.25: positive impact  < -2.5: very negative impact < -1.25: negative impact	> 3.75: very positive impact > 1.875: positive impact  < -3.75: very negative impact < -1.875: negative impact	

**Ch-3 Table 19: Importance/Impact Assessment (NEW Guideline)**

In order to have a holistic view of the issues in this study, both the supplier KAM data and customer data are combined, taking the simple average score, or group mean. The table below (**Ch-3 Table 20**) shows the comprehensive view on the Q-sorting results: the importance rating in a business as usual situation, during the M&A/integration, the M&A/integration impact rating and overall implication scores, as assessed by the supplier KAMs and the customers.

No.	Variable	Importance, BAU			Importance, M&A (ImO)			M&A Impact (ImA)			ImO x ImA		
		KAM	Customer	Mean	KAM	Customer	Mean	KAM	Customer	Mean	KAM	Customer	Mean
1	Pre-service expectation	5.1	4.9	4.96	5.1	4.9	4.96	0.0	-0.1	-0.1	0.1	-0.7	-0.3
2	Service performance	6.2	6.4	6.3	6.3	6.4	6.4	-1.0	-0.5	-0.8	-6.3	-3.3	-4.8
3	Customer benefits	5.5	5.3	5.4	5.5	5.3	5.4	0.1	0.0	0.0	0.6	-0.3	0.2
4	Cost, price	6.0	6.3	6.1	5.95	6.3	6.1	0.1	0.0	0.0	0.2	0.1	0.2
5	Employees satisfaction	4.9	5.2	5.0	5.1	5.2	5.1	-1.0	-0.1	-0.5	-4.9	-0.8	-2.8
6	Flexibility, adaptation	5.7	5.8	5.7	5.7	5.8	5.7	-0.6	-0.3	-0.4	-3.1	-1.6	-2.3
7	Communication, info-	5.5	5.8	5.6	5.8	5.9	5.8	0.0	-0.3	-0.1	0.1	-1.5	-0.7
8	Fairness, benevolence	5.3	5.5	5.4	5.2	5.5	5.3	-0.1	-0.1	-0.1	-0.6	-0.7	-0.7
9	Account mgt quality	6.4	5.9	6.2	6.4	6.1	6.2	-0.7	-0.4	-0.6	-4.6	-2.5	-3.5
10-1	Social bonding activities	4.6	3.5	4.3	4.6	3.5	4.3	0.0	0.0	0.0	0.0	-0.1	0.0
10-2	Legal bonding activities		4.5		4.5							0.0	
11	Supplier commitment	5.6	6.2	5.9	5.7	6.2	5.9	-0.3	0.0	-0.1	-1.7	0.6	-0.5
12	Expertise, capability	6.3	5.6	5.9	6.3	5.6	5.9	-0.1	0.1	0.0	-0.5	0.4	-0.1
13	Customer orientation	6.3	6.1	6.2	6.3	6.2	6.2	-0.8	-0.4	-0.6	-4.7	-2.8	-3.7
14	Complaint handling	6.0	6.3	6.1	5.8	6.3	6.0	-0.7	-0.3	-0.5	-3.8	-1.5	-2.6
15	Customer status	5.7	5.4	5.6	5.5	5.4	5.5	0.0	-0.1	-0.1	0.3	-0.8	-0.3
16	Multi-channel integration	5.0	5.7	5.4	5.0	5.8	5.4	-0.3	-0.2	-0.2	-1.6	-1.1	-1.3
17	Supplier reputation	4.9	4.7	4.8	4.95	4.7	4.8	0.2	0.0	0.1	0.4	0.2	0.3
18	Employee turnover	4.8	4.9	4.9	4.8	5.1	4.9	-0.7	-0.4	-0.5	-4.0	-2.4	-3.2
19	Product/service breadth	5.0	4.4	4.7	5.0	4.4	4.7	0.8	0.1	0.5	4.2	0.7	2.4
20	Supplier initiative	6.2	5.7	5.9	6.0	5.7	5.8	-0.4	-0.1	-0.2	-2.3	-0.5	-1.4
21	Acceptable alternatives	4.5	5.1	4.8	4.6	5.1	4.8	-0.1	0.0	0.0	-0.2	0.0	-0.1
22	Switching cost	5.6	4.8	5.2	5.7	4.8	5.3	-0.1	0.1	0.0	-0.4	0.4	0.0
23	Customer involvement	6.0	5.2	5.6	6.0	5.2	5.6	-0.2	0.0	-0.1	-1.0	0.0	-0.5
24	Competitive intensity	5.0	6.0	5.5	5.1	6.0	5.5	-0.5	0.0	-0.2	-2.5	0.2	-1.1
25	Market dynamism	3.8	4.0	3.9	3.8	4.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
26	Supply complexity	5.3	4.6	4.9	5.3	4.6	4.9	0.1	0.0	0.0	0.1	0.0	0.0
27	Relationship length	4.9	4.7	4.8	4.9	4.7	4.8	0.0	0.0	0.0	0.0	0.0	0.0
28	Supply importance	5.5	5.6	5.5	5.5	5.6	5.5	0.3	0.0	0.1	1.7	0.0	0.8
29	Company size	3.1	4.1	3.6	3.1	4.2	3.6	0.0	0.0	0.0	-0.1	0.0	-0.1
30	Cultural differences	3.6	3.5	3.5	3.6	3.5	3.5	-0.1	0.0	0.0	-0.2	0.0	-0.1
31	Psychological contract	5.0	5.0	4.99	5.1	5.1	5.1	-0.1	-0.4	-0.3	-0.3	-2.4	-1.3

Highly important      Important      Highly negative      Negative      Positive

**Ch-3 Table 20: Consolidated Importance/Impact Score (KAM + Customer)**

In terms of the importance rating in a business as usual situation (B-A-U), both the supplier KAMs and customers would agree that the 19 relationship variables (highlighted in dark/light yellow in the figure above) were important.

In terms of the importance rating during the M&A/integration, both the supplier KAMs and customers would agree that the 20 relationship variables (highlighted in dark/light yellow in the figure above) were important, out of which, the following five variables most strongly influenced the relationship quality during the integration period (out of a 1-7 rating):

1. [2] Service performance (6.4),
2. [9] Account management quality (6.2), [13] Customer orientation (6.2),
3. [4] Price/cost (6.1),
4. [14] Complaint handling (6.0).

Concerning the impact rating and overall implication scores, the 11 relationship variables (highlighted in red, pink or blue in the figure above) were impacted, out of which, the following six variables can be the key to understanding the impact of post-M&A integration on the customer-supplier relationships (out of -14/+14 rating):

1. [2] Service performance (**-4.8**),
2. [13] Customer orientation (**-3.7**),
3. [9] Account management quality (**-3.5**),
4. [18] Employee turnover (**-3.2**),
5. [14] Complaint handling (**-2.6**),
6. [6] Flexibility/adaptation (**-2.3**).

In addition to the six key variables above, the supplier KAMs rated the following variables as highly important/impacted: [5] Employee satisfaction (**-2.8**), [24] Competitive intensity (**-1.1**) and [19] Product/service breadth (**+2.4**), while the customers rated the following variables as highly important/impacted: [31] Psychological contract (**-1.3**) and [7] Communication/info-sharing (**-0.7**).

### **3) Missing Variables**

Missing key variables identified both by the supplier KAMs and customers were also combined (**Ch-3 Table 21**). It is apparent that ‘Supplier’s IT capability’ and ‘Difference in supplier’s organisational culture’, claimed by over a quarter of the interviewees, are important to understand supplier-customer relationships in addition to the original 32 variables. Furthermore, the latter became outstanding during the integration period considering its M&A/integration impact score (**-1.1**, out of -2/+2 rating).

Missing Variables (KAM + Customer)	# claimed	Ratio vs. Total	ImpO* BAU	ImpO* M&A	ImpA** M&A	ImpO x ImpA
Supplier's IT capability	12	35%	6.2	6.2	-0.5	-3.2
Difference in supplier's org. culture***	10	29%	n/a	5.6	-1.1	-6.1

\* ImpO = Importance rating --- Mean scores within the interviewees who claimed

\*\* ImpA = Impact rating --- Mean scores within the interviewees who claimed

\*\*\* This variable was claimed mainly in M&A

**Ch-3 Table 21: Major Missing Variables (KAM + Customer)**

## X. INTERVIEW ANALYSIS (QUALITATIVE DATA)

As stated in **V. Data Analysis Method**, here is the question explored in the supplier KAM and customer interviews for the qualitative part: Why/how were the key customer relationship variables affected by the Company-X integration?

**Note:** Company names and some data/information are masked for confidentiality reasons.

### 1. Supplier KAM Interview

All the interviews (why/how part) were recorded, with some exceptions, and transcribed as an interview file. An example of the interview transcription can be found in **Appendix J**.

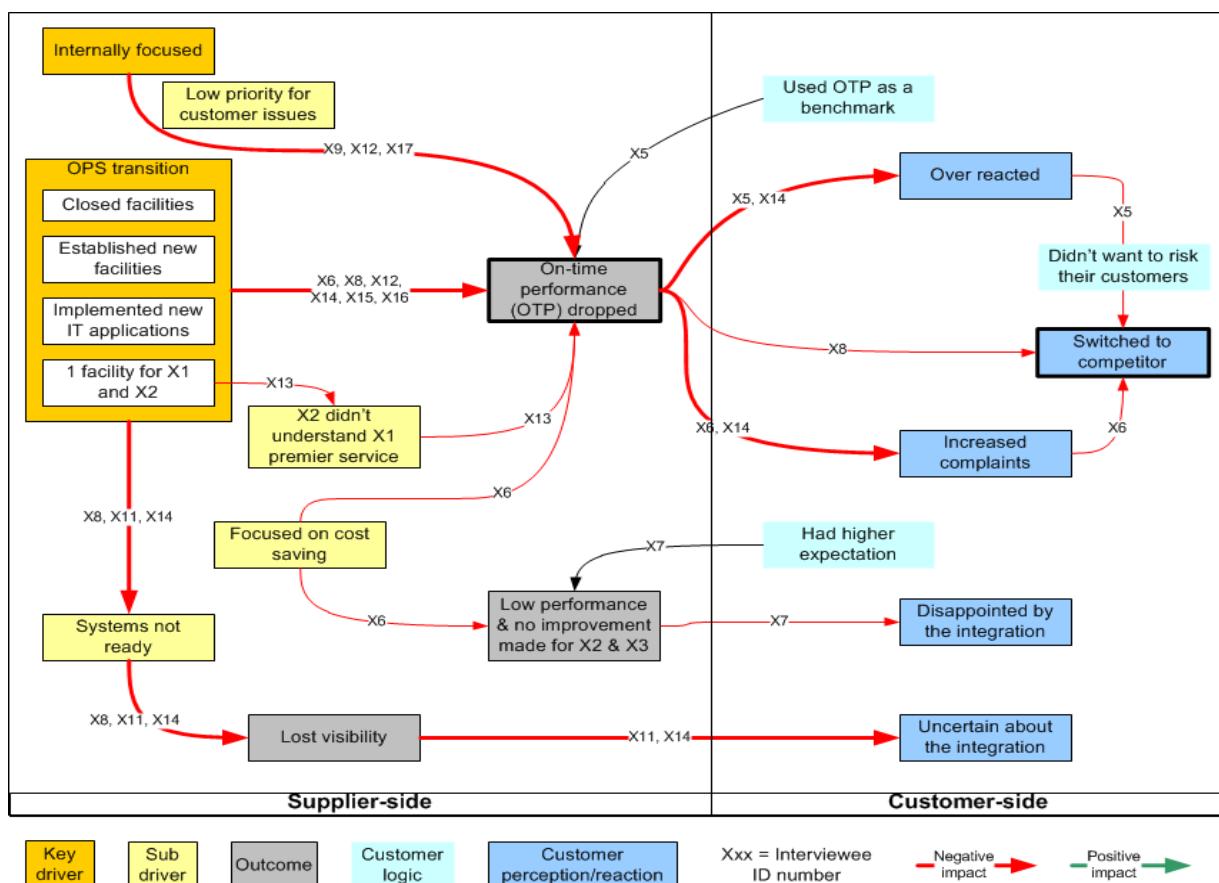
The following 12 key variables were selected for the qualitative data analysis mainly based on the Q-sorting results: high importance with high M&A impact. Arguments about the key variables were consolidated and then coded in the interview datasheet. An example of the interview datasheet can be found in **Appendix K**.

- [2] Service performance
- [5] Employee satisfaction
- [6] Flexibility, adaptation
- [9] Account management quality
- [13] Customer orientation
- [14] Complaint handling
- [18] Employee turnover
- [19] Product/service breadth
- [24] Competitive intensity
- [31] Psychological contract (included to compare with customer perceptions)
- [New-1] IT capability (included because >30% of interviewees mentioned it)
- [New-2] Organisational culture (same reason as above)

The key arguments about possible causes and effects were mapped by variable as a causal map, which were then consolidated into one map taking causal links mentioned

by two or more interviewees (supplier KAMs). The overall supplier KAM causal map can be found in **Appendix L**.

In this section, the causal map for [2] Service performance (supplier KAM perception) is discussed as an example. This is the variable perceived to be most negatively affected by the integration, claimed by 13 out of 20 interviewees (supplier KAMs). The coded datasheet is transformed into the causal map (**Ch-3 Figure 23**) and can be interpreted as follows. Company-X's on time delivery performance dropped due mainly to its operational transition and employees' internally focused attitude. This was perceived to be very serious because it was one of the customers' top requirements and they used it as a benchmark. As a result, complaints increased and some customers switched to other service providers in order not to risk their own customers. Furthermore, customers were disappointed or uncertain about the integration due to the fact that the merging parties' operational performance was lower than expected and Company-X made no improvement regarding that. This happened because Company-X focused on cost-cutting and there was a missing link in the chain.



**Ch-3 Figure 23: Causal Map for Service Performance (KAM Perception)**

## **2. Customer Interview**

All the interviews (why/how part) were recorded, with some exceptions, and transcribed as an interview file. An example of the interview transcription can be found in **Appendix M**.

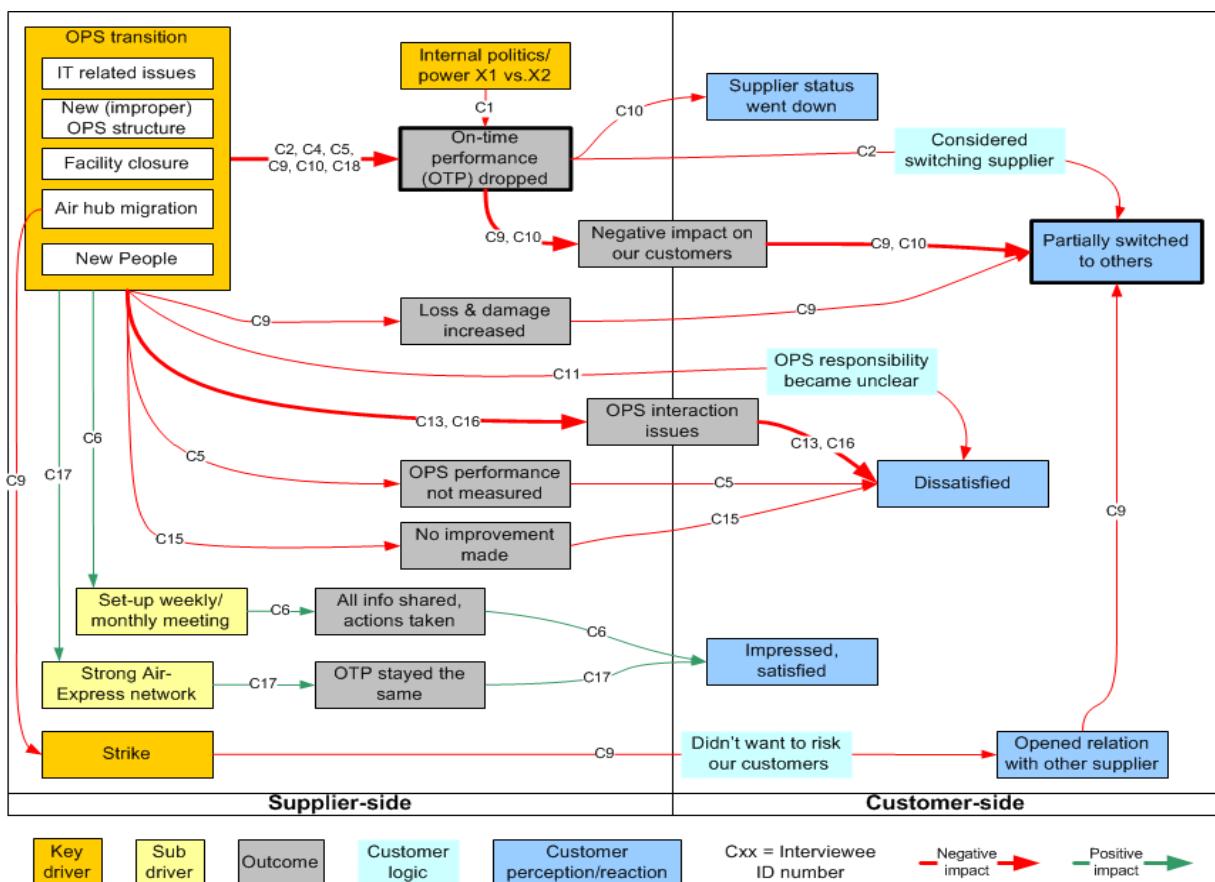
The following 12 key variables were selected for the qualitative data analysis not only based on the Q-sorting results but also on the number of interviewees who mentioned these as key, considering the fragmented nature of the customer rating. Arguments about the key variables in the transcription were consolidated and then coded in the interview datasheet. An example of the interview datasheet can be found in **Appendix L**.

- [2] Service performance
- [4] Cost, price (included considering the number of interviewees highlighted it)
- [6] Flexibility, adaptation
- [7] Communication, info-sharing
- [9] Account management quality
- [11] Supplier commitment (same reason as [4])
- [13] Customer orientation
- [14] Complaint handling
- [16] Multichannel integration (same reason as [4])
- [18] Employee turnover
- [31] Psychological contract
- [New-1] IT capability (included because 20-30% of interviewees highlighted it)
- [New-2] Organisational culture (same reason as above)

The key arguments about possible causes and effects were mapped by variable as a causal map, and were then consolidated into one map by focusing on causal links mentioned by two or more interviewees (customers). The overall customer causal map can be found in **Appendix O**.

In this section, the causal map for [2] Service performance (customer perception) is discussed as an example. This is the variable perceived to be most negatively affected by the integration, as claimed by 12 out of 20 interviewees (customers). The coded

datasheet is transformed into the causal map (**Ch-3 Figure 24**) that can be interpreted as follows. The operational transition that Company-X carried out caused many issues including a drop in on-time delivery performance, increase in losses & damages and a large-scale strike. Since the issues were serious, some customers partially switched to other service providers to avoid risking losing their customers. This change led to a downgrade of Company-X's supplier status within a customer's organisation and opening of new opportunities for Company-X's rivals. Customers were also not happy due to inefficient operational interactions, poor operational visibility and no operational performance improvement, which were perceived to be caused by the operational transition including IT integration. There were, on the other hand, happy customers who were impressed with Company-X's consistency in its operational performance and dedicated commercial/operational interactions.



**Ch-3 Figure 24: Causal Map for Service Performance (Customer Perception)**

### 3. Supplier KAM and Customer Interview (Consolidation)

The supplier KAM's causal map (**Appendix L**) shows the underlying mechanism of the integration effects within the organisation but its description about customers'

perceptions and reactions is relatively limited. The customer's causal map (**Appendix O**), on the other hand, shows extended views on their perceptions and reactions but its observation about the integration effects within Company-X is rather too simplified. It is apparent that the former is better suited for investigating the integration effects within the organisation and the latter is better suited for investigating the customers' perceptions and reactions. Although it is reported that there are sometimes considerable differences in mental maps between suppliers and customers (Rughase, 2002), there are many commonalities and no particular conflicts between the two causal maps in this study. Therefore, it was decided to further consolidate them into one holistic map (**Appendix P**) which covers both views.

**Note:** It has become apparent from the customer interview transcription that many customers regarded [11] Supplier Commitment (Supplier's desire and effort to maintain the current relationship with you) in the same light as [13] Customer Orientation (Supplier's attitude/behaviour to 'put the customer first' and nurture the current relationship) when they described the impact of the M&A/integration. Therefore, it was decided to combine the two variables in the causal map.

The holistic causal map (**Appendix P**) reveals the following 7+1 key integration factors that impacted the customer relationship variables and then customer perceptions/reactions. Most of the activities are also stated in the Documentation Information section (details can be found in **Appendix F**) as part of the group-wide post-M&A integration programme (13 initiatives for 6+1 functions):

- (1) **Operational transition** — this was stated as the air-network and ground operations platform redesign, a major part of the integration programme:
  - Plan (Mar-2003): To integrate the air-network, build new ground operations systems and redesign the air-network & ground operations platform.
  - Actual: Some countries consolidated terminals (Oct-2004), domestic networks were being integrated and terminals were being consolidated (Feb-2005) and migrated the European logistics hub from city-A to city-B (late 2007-early 2008).

(2) **Operational standardisation** — this can be considered as part of the air-network and ground operations platform redesign (new production system for ground operations: process and system integration).

(3) **Organisational restructuring** — this was stated as the salesforce and customer service integration, a major part of the integration programme:

- Plan (Mar-2003): To redesign Marketing & Sales organisation and integrate the salesforce and customer service.
- Actual: Customer service centres from different entities co-located and salesforce integration underway (Oct-2004), salesforce integration completed and customer service being integrated (Feb-2005).

(4) **IT integration** — this was stated as the IT infrastructure consolidation, a major part of the integration programme:

- Plan (Mar-2003): To consolidate IT infrastructure, build new architecture and integrate operations system.
- Actual: New IS service centre opened in city-C (Oct-2004), the IS service centre became operational (Feb-2005).

(5) **Establishment of the multi-BU megacorporation** — this can be an expected result of the series of M&As. The management stated: in Europe, numerous acquisitions have been carried out in almost all the countries to create home market strength — the biggest challenge has been to integrate multiple diverse business models, processes and systems in over 20 countries.

(6) **Change in pricing strategy** — this was not stated in any documentation, therefore presumably driven by newly appointed local management. For instance, interview respondent C1 mentioned the increase was 80-90% on average, while C2 mentioned it was around 30%.

(7) **Aggressive corporate re-branding campaign** — this was stated as part of the corporate development/marketing initiative. A series of mass marketing campaigns was organised (including TV and radio advertisements) with the following concept: “*One brand – one face to the customer illustrates Company-Y’s systematic one-stop shopping approach.*” (Company-Y, 2009: P9)

(8) **Unstable post-M&A environment** — this can be an unavoidable result of the series of M&As, which is also stated in the M&A/integration literature (Haspeslagh and Jemison, 1991).

Two of the integration initiatives in the integration programme are considered to have had limited impact on both KAMs and customers:

- Product portfolio harmonisation — one interviewee mentioned it as a negative change (e.g. termination of a particular service) but since the majority of the interviewees did not mention it, the overall impact would be limited.
- Logistics strategy (optimisation of global customers approach) — some interviewees mentioned it as a positive change (e.g. global/European sales approach) but since the majority of the interviewees did not mention it, the overall impact would be also limited.

Five of the integration initiatives in the programme were not explicitly highlighted by the interviewees due to the following potential reasons:

- Harmonisation of processes and tools (CRM) — this was an internal sale management initiative and may have had some impacts on KAMs but a limited impact on customers.
- Finance & Accounting standardisation/integration (2 initiatives) — these were internal/administrative initiatives and thus had almost no impact on both KAMs and customers.
- IT application roadmap — this was an internal IT design initiative and thus had no impact on both KAMs and customers.
- HR (functional) integration — this was another internal/administrative initiative and thus had a limited impact on KAMs and no impact on customers.

It has become clear that some of the key integration initiatives created critical integration issues, while others did not, which is visualised in the figure below (**Ch-3 Figure 25**):

Function	Planned Integration Initiative (Documentation information)	Impact on Customer	Key Integration Factors (Identified through the interview)
Marketing & Sales	1. Harmonisation of processes and tools (CRM)	Low	1. Operational transition
	2. Product portfolio harmonisation	Low-Mid	2. Operational standardisation
	3. Sales force and customer service integration	High	3. Organisational restructuring (salesforce integration)
Air Network	4. Air network integration	High	4. IT integration
Ground Operations	5. New production system (process and system integration)		5. Establishment of the multi-BU megacorporation
	6. Air network and ground operations platform redesign		6. Change in pricing strategy
	7. European carrier organization		7. Aggressive corporate re-branding campaign
Finance & Accounting	8. Standards and processes (including new global billing system)	Low	8. Unstable post-M&A environment
	9. Integration and shared service centre (tax and legal structure)		
Information System	10. Infrastructure consolidation and architecture	High	
	11. Application roadmap	Low	
Human Resource	12. HR integration (strategy and shared services)	Low	
Logistics	13. Logistics strategy (optimal global customers approach)	Low-Mid	

**Ch-3 Figure 25: Integration Initiatives and Impact**

The following is a summary of inferences from the causal map supported by extracted quotations from the interview datasheets (Xxx = Interviewee ID/supplier KAM, Cxx = Interviewee ID/customer, refer to **VIII. Interviewee Profile**):

### 1) Operational Transition

The operational transition damaged the organisation's on-time delivery performance, which made some customers partially switch to other service providers in order not to risk their own customers.

**[Supplier KAM]** when they see any drop in service levels... they don't want to risk their own customers so they'd switch immediately (X5), during the transition phase, our performance dropped, customer complaints went up (X6) our performance was dropped, I think that's a normal consequence of a transition period... It went below the acceptable level... we lost half of our customers during that period (X8), we did try to use one facility for both services but it did not work very well (X13), we could not provide stable services

to the customer... The reality was probably just negative but the perception from the customer was probably even worse than that (X14), through the period of integration we closed offices, established new ones with new applications etc. etc. During the period, our service really suffered (X16).

**[Customer]** The performance dropped a lot during the transition and we had to seriously consider changing supplier... partially switched to another supplier (C2), the logistics hub migration... Service performance was negatively impacted even it was only for a week, we don't accept any operational disruptions, on-time performance is always critical (C4), we've been dependent on Company-X but your [operational] performance was not very good during the period... more than 10% of our shipments were delivered to our customers with one day delay... we opened a relationship with... Rival-E, at that time because we didn't want to risk our customers (C9), We switched our UK distribution part from Company-X to Rival-B, because its on-time performance... went down to 92% or below... our English colleagues were not very happy... so even though we had a very good and strong relationship with Company-X here at the European DC, we really had to take it away... it was really bad for more than two months (C10).

## 2) Operational Standardisation

The operational standardisation the organisation carried out decreased its operational flexibility and it urged its customers to adapt to the organisation's standardised process. Customers whose needs were not fulfilled by this change switched to other service providers.

**[Supplier KAM]** We focused on standardization... we offered less customization even for the most important and demanding customers. They were not happy with that (X1), Our primary focus... was clearly standardization of almost all the processes and thus we were not even intended to be flexible (X2), we needed to respect a newly formed network driven guideline, thus became less flexible at least during the period (X3), lost a lot of customers, because of ... our ability to do something, our ability to react, we had a very inflexible network, they had stripped all the cost out of the network, there was no money in the operation for us to be flexible... the client didn't want that... we had to give that to someone else [competitors] (X9), capability and the willingness was certainly limited...the organisation was certainly unsettled... negative impact on benefits perceived from the customer (X12), Once we were merged with the company managed by Company-Y with standard, standard, standard, low cost standard production, no customer exemptions and so on, we started to be definitely less flexible than we used to be... we started to be a big

*machine, we were not allowed do any special things for the customer but we had to make it run as a machine... we lost business (X16).*

**[Customer]** *we had to take what was available... five years ago they were telling the customer 'if you want to do business with us this is the way you do it' so the customer had to adapt to Company-X... maybe that was the way they had to do it to make it happen but I can assure you Company-X lost a lot of customers (C5), my feeling is that Company-X has become huge and so they are no longer as flexible as they used to be (C11), over the years Company-X lost considerable share of business with us here but I think it was predominantly driven by our restructuring and for a smaller part also by the integration. But you could argue that a big company like Company-X, shouldn't they be able to adapt to the needs of a customer like us...? (C12), we look for a solution which Company-X tries to fit in with their own existing networks whereas when we deal with a smaller company, they are more willing to adapt their organisation to our needs (C13), when you closed a lot of small distribution centres of Company-X2, you concentrated them on a bigger one, automatically your flexibility went down... it became more anonymous so it's more to procedures and less personal contact... it has become a little bit more bureaucratic (C16).*

### **3) Organisational Restructuring (namely Salesforce Integration)**

The restructuring created serious internal problems including:

A: Capacity/capability limitation (affected by the operational transition as well), which caused complaint handling issues,

**[Supplier KAM]** *we merged the customer service... and the expertise was not developed... The customer was not satisfied with our service because he never got the answers he needed due to lack of expertise (X4), we had certainly negative perception from the market... it was very simple, people were uncertain, people had a negative emotion, the satisfaction was not as it used be... new people there, people who had limited knowledge about products (X12), people were only instructed to work according to the processes... it's really downsized in the more standard operation and I never heard any more that customers were very happy with the customer service personnel (X13), people needed to know the systems, needed to be aligned... everything in a short period of time, so it's hard to maintain quality toward customers (X19), Company-X2 did not have right processes, people and capabilities to handle customer complaints (X20).*

**[Customer]** We had several outstanding complaints which were not managed and there were many complaints more than one year old and everything was just postponed from Company-X all the time (C2), they had so many complaints that they couldn't handle, too much (C5), they all promised to improve the situation but actually nothing happened. They didn't really understand what we wanted (C9), problems we had in England couldn't be fixed by our account manager in the Netherlands (C18).

B: Too many organisational changes that created employees' internally focused attitude and uncertain environment,

**[Supplier KAM]** Too many internal changes during the integration made it hard for us to care about our customers (X1), we introduced too many new business functions, services, procedures in such a short-term... People were de-motivated due to the issues caused by the integration, e.g. too many changes, lost colleagues, not retained customer/industry knowledge, too rigid standardization and lost confidence (X2), we didn't have that almost a luxury of thinking how could we help our customer... it's an 'easy' one to just drop out because we're under pressure to carry out a whole series of actions, there were a whole host of changes that were being implemented internally (X5), nobody knew where we would go, despite news letters from senior management or whatever, we didn't know either we could keep our jobs, we should take a new job within Company-X... what about my bonus, what about my salary, what about my company car... (X6), all our employees were confused, were uncertain even for their job, for redundancy, "what am I going to do, that guy is covering the same area as me or the same customer as me, so one single contact, which one, him or me", so a lot of fears and uncertainty... they [merging parties] used to be our competitors until the day before and all of a sudden they became our colleagues... it [salesforce integration] was tough, "don't touch my customer", that was really like that... a war between ourselves (X7), it's like a swan and underneath we're all over the place, we're paddling like hell because we didn't know which way we're going (X9), there were too many changes, the strategy was not clear, the communication was not clear enough, we did not explain to our people what we wanted to achieve and therefore in a period of uncertainty the employee was unsatisfied (X14), there were so many changes in terms of position, everyone wanted to take the opportunity to have a better job or to get another position due to the creation of new positions in the company. I saw something like individualistic behaviour of some employees... it created some frustration (X15), it took 10 months

from the announcement to know the final result, either I got the job or not (X16), changes are always less satisfactory... people did stay in their own comfort zones and were not willing to accept major changes (X19).

**[Customer]** all focused on internal organisation and changes (C1), they did not focus on the customer, no focus (C2), during the integration their focus was internal issues to make them done (C5), they focused on internal issues and didn't care about us anymore (C11), the management and sales people were busy internally, who would hold the chair... Only "Yellow" that they're interested in (C17).

B-1: The internally focused attitude harmed the organisation's customer orientation that made the customers feel less valued,

**[Supplier KAM]** We were too busy for internal issues and could not prioritize customer issues... Customers lost sight, e.g. they did not know which number to call to contact Company-X (X2), we were not able to supply the same level of services to the customer and therefore hit their perception of us not caring about them much (X5), we were focused slightly more internally than we were towards the customer, there was no real initiative such as customer first (X9), we had more internal meetings than customer meetings... to have people working together rather than visiting customers (X10), we focused clearly on our own benefits instead of offering win-win solutions to customers... customer-focused approach was replaced by a short-term win (X12), We're internally focused and we didn't have time to go and see the customers, we're so busy with our stuff (X16), we didn't have the first priority in the organisation and the customer was the first one to actually experience and saw that... If people start not to be focused on the customer... in the end the customer... notices this on all levels of his organisation (X17).

**[Customer]** I've said this many times to Company-X, all the focus was the internal things, it was like a cosmos, they just took it for granted (C2), I didn't feel valued by Company-X during the period. I had a feeling that customers were not important within Company-X. We were nothing for Company-X (C9), they... didn't care about us anymore. I had a feeling that we were not important for them (C11), it appeared to me that from Company-X as a group, we were not important enough to make strong efforts to gain a lot of business in the different areas (C12), from our perspective, they were not interested in customers like us (C17).

B-2: The uncertainty led to employee dissatisfaction that made a negative impression on the customers,

**[Supplier KAM]** they [employees] went to customers and said that everything was just bad, bad behaviour of employees but this happened (X4), a lot of fears and uncertainty had an impact on our customer, the way our sales talked to a customer was certainly impacted by that (X7), the customer perceived our frontline employees who were not what used to be (X12), if they [employees] don't feel recognised or rewarded then they will lose their satisfaction, if people lose satisfaction, they are not going to a customer with smile and I know that in that period there were drivers who literally threw the shipment into a shop (X13).

**[Customer]** many people from Company-X2 were basically entering into the Company-X1 organisation and this was felt as a negative development by a lot of people from Company-X1 (C1), Company-X employees were not very happy... they had to move from one place to another, they were not sure about their jobs etc... So there was an uncertain period (C18).

C: High employee turnover that led to a leakage of knowledge and expertise,

**[Supplier KAM]** this [lost many industry veterans and their knowledge] affected every touch point with our customers very negatively (X2), if you have people leaving then you'll have to build up the relationship again, which in my experience takes minimal a year to build it up... To understand the customer, to get in the right contact and so on (X4), I lost a tremendous amount of colleagues... they went to the competition... not just sales people, IT people, operations people, it was very difficult to keep people (X9), we lost a lot of knowledge, experience and... also common life, regular life on a day to day basis between colleagues (X15), it may take at least 2 years to build the relationship again... When losing good personnel with know-how and interaction, the customers were concerned about value we could deliver (X16), a negative impact on the expertise and capabilities of the personnel because we had a drain in our staffing, many people left the organisation (X17), we lost expertise because many people, especially the good ones, changed their positions (X18).

**[Customer]** it [supplier's employee turnover] obviously increased, a lot of the key persons left Company-X... and they didn't find new persons (X2), I worked with three account managers from Company-X. The first one left Company-X, the second one came and then soon left and the third one ... but he left Company-X

also (C9), many Company-X people I knew left the organisation... Account managers, customer service agents and operations process engineers... (C17), our Company-X guys disappeared due to the internal changes (C18).

D: Misassignment of customer portfolios (e.g. international customers to domestic account managers), combined with the knowledge/expertise leakage, damaged account management quality,

**[Supplier KAM]** without properly retained expertise, customer knowledge and personal relationship with the customers, we could not offer high quality services to the customers (X2), an account manager coming from Company-X1 had to deal with the customer for the standard services... customer could easily understand that this guy was not professional (X6), everyone regardless of the backgrounds... had to learn a lot about products to sell, no one had the experience of selling the whole new product portfolio (X8), we were supposed to manage accounts altogether... we were integrating the teams, people in Company-X2 and X3 who never had a clue about the premier services and they were starting to manage this activity and the same in the other sides (X10), international focused customers... were handled by a sales person who did not have any clue about international business... customers did not have the quality that they used to have (X13), we had to integrate the three different salesforces with different backgrounds, different expertise and different approaches to manage customers, in a relatively short period of time (X14), people who were coming from different backgrounds, I don't think that they ever went into the right way of selling premier services... we lost so many people, good ones... we definitely suffered. (X16).

**[Customer]** the experienced people left our field and they were replaced by less experienced people who were basically unable to make any time to be involved in our business (C1), experienced ones were gone and instead new persons were on board. It was tough (C5), I needed to tell the same things to them, our products, our customers and our needs... etc, again and again (C17), we had problems... we had to deal with other people again (C18).

E: The issues in complaint handling, customer orientation and account management annoyed the customers and damaged their confidence, in other words, the organisation lost credibility from its customers. Some customers switched to other service providers due to this credibility issue,

**[Supplier KAM]** we offered less customization even for the most important and demanding customers. They were not happy with that (X1), customers were confused... and it took much longer time to solve problems (X3), he [customer] never got the answers he needed (X4), customer could easily understand that this guy was not professional... levels of trust going down, relationship going down (X6), the client felt we didn't do that [complaint handling] very well... if the customer didn't like it they would leave and a lot of them did, the ones that didn't, stayed because primarily the cost (X9), when a wrong sales person was assigned to a particular customer, the customer left Company-X (X13), the customers who had experiences of working with Company-X2 worried about Company-X1 for losing its customer focused attitude (X20).

**[Customer]** they didn't find new persons to step in... it's not a proper handover (C2), when I saw competition, internal competition I felt that that was negative effect of the integration (C8), lack of trust was actually also causing the change to another forwarder (C10), they tried to attract us with best price, an internal competition between Company-X1, X2 and X3 in front of us. It was strange and confusing for us (C13,) what annoyed me was that every time a new account manager was assigned, I needed to teach him about our business and particular needs. There was no knowledge transfer within Company-X (C17).

F: However, when the customers were treated well with dedicated support, they felt valued even during the integration.

**[Customer]** we had our key contact persons from Company-X entities, we contacted them and we still have all the contacts... it was Company-X that learned very quickly how to deal with companies like ours... we were already a big customer for Company-X2, the communication between the rest of them was very fast and they understood our needs and our expectations (C3), they were committed to do what they had to do although they couldn't be flexible... they couldn't do extraordinary things, they had enormous trouble with complaint handling... they really tried hard to make that happen (C5), we really worked as a team with Company-X account management team... we were really treated as a customer... we had dedicated resources in one of your customer service hubs... that was really very valuable for us... we had one approach from the DC [distribution centre] to Company-X and Company-X to the customer... that was the big advantage (C6), one key account manager, one customer service, so it was a one to one relationship and that was working well (C7).

#### **4) IT Integration**

The IT integration caused IT-related issues and the organisation lost operational visibility, which made the customers uncertain about its operations.

**[Supplier KAM]** all shipments when they entered Italy, they were off the system, we couldn't see when they would be delivered (X8), we were selling a very confused pallet of products to the customer with really no backbone ...there were missing links in the chain... which created uncertainty about what's happening with integration of Company-X (X11), we were not having the right system to support... tracking and tracing for domestic shipments, European shipments from one country to another country or booking from one country to another or merging tracking for shipments of standard services... the customer did not understand what was going on (X14).

**[Customer]** if you suddenly had a delay for delivery of the pallets, then the problems started for the people to find out where the pallet was, so the normal operations worked but the systems behind them to really keep track of them were not working properly yet (C5), there were a number of different organisations and their systems weren't merged, so they were perceived as very difficult to get a coordinated response from (C14), each business unit of Company-X has different system... When it comes to IT link, it's even worse (C17), what we saw was that Company-X was trying to connect all the different companies throughout Europe with the network to monitor delivery statuses... but that was very problematic especially in the beginning [between 2003-2005] (C18).

#### **5) Establishment of the Multi-BU Megacorporation**

A multi-BU megacorporation was created by combining three different group companies (Companies-X1, X2 and X3), which brought both negative and positive effects, including:

A: Poor customer communication (caused by the organisational restructuring as well), which not only made the customers uncertain about the organisation's operations but also made the customers feel that it had become complex and not easy to work with,

**[Customer, restructuring]** I think that [customer communication] should... make the customer believe that there would be no critical impact on customer's shipments... But there was no one from Company-X who handled that (C2), the

*operational guy at Company-X2 was also doing the commercial aspects and when this was split [commercial and operational] to me it seemed the interaction became less efficient (C12), it was not as good as before because there were some new people (C16).*

**[Customer, megacorporation]** *all the different companies had a different way of communication and sometimes not even open and sometimes we suffered from that (C3), we always want to know who is operationally responsible for our shipments... This became unclear especially during the integration... Company-X became huge and there's not enough clarity in terms of organisational structure... I didn't know who I needed to contact and where I could find necessary information (C11), when something went wrong, everything went wrong, for example, the speed of communication and actions to find solutions to the problems was negatively impacted since more people were involved (C13), there were a number of different organisations and their systems weren't merged, so they were perceived as very difficult to get a coordinated response from (C14).*

B: Organisational cultural difference (or conflicts) that not only damaged employee motivation/satisfaction but also confused the customers,

**[Supplier KAM]** *Red [Company-X1] didn't like Blue [Company-X2] and Blue didn't like Red, there was a strong friction... a lot of people hated each other (X9), Company-X1 was internationally driven... while others [Company-X2 and X3] focused on national or local businesses. It's really a huge difference in culture... the average age of Company-X1 was 32 but that of Company-X2 or X3 was 53... imagine how difficult it was for employees of 53 years old who had been working for the company more than 20 years to change their ways (X13), the way of life within Company-X has been built for several years but due to the integration and the integration of different cultures, different people from all the companies with different areas, sometimes it's not so easy to keep the same wish to work together (X15), a new MD came on board from Company-X2, who took completely different, kind of old fashioned approaches to our business. All the Company-X1 people were kicked out from management position... and they were replaced by old Company-X2 guys. We began to think that we were the minority in the new organisation (X18), people did not understand why another Company-X entity reacted in a certain way, why there were other priorities in the organisation, why processes were approached in a different way, so it's difficult to understand each other (X19).*

**[Customer]** we had a feeling that there was a clear difference in organisational culture between Company-X1, X2 and X3, and also a different approach towards the customer (C3), I perceived some conflicts in the Netherlands between Company-X1 and X2 organisations. The operations guys there were criticising each other like 'we're ok but they have problems' (C9), the transition of the three companies was not really going very well, as far as I learned. We observed that the merging companies were not really working together because Company-X2 and X3 were in a very different business from Company-X1 with a quite different [organisational] culture (C10), XXX in Italy... they took their whole management away, replaced them with other [Company-X] people, and then we suddenly saw major operational improvements. But in other countries like the UK and France, that wasn't the case. They suffered a lot from the differences in people, procedures etc... (C18).

C: Misalignment in customer interaction channels, combined with the drop in account management quality, made customers feel that the organisation had become complex and not easy to work with,

**[Customer]** I felt I was dealing with different, completely independent companies... I had to go to the individual Company-X organisation (C8), key account manager should be a single point of contact for us. But during the integration and even now, they couldn't tell us exactly what's happening operationally within the organisation. There's no transparency and it's confusing for us. (C11), even now I still have the impression that they are different companies (C12), because it was made up of separate divisions, we needed to speak to separate people... complex unit to deal with (C14), if you took multiple products as we did, we used to be treated as one customer but we had to negotiate with two different people which is in my regard too inefficient (C16), despite all the efforts, Company-X is even yet not one company from our perspective... an account manager from Company-X3 doesn't care what is happening in premier services... they don't even know each other (C18).

D: Broadened service portfolio, which enabled the customers to reduce the number of suppliers, the organisation to meet its customers' complex needs and the organisation to offer cheaper options that led to an increase in business,

**[Supplier KAM]** we became able to offer much more response to the needs of the customer, much more types of services...nearly all services were possible, so we

became much more important for the customer as a single supplier (X7), we became able to think more about offering solutions than offering products which brought us closer to matching the customer's expectations (X8), we became capable and that's very positive to offer variable alternatives (X10), [customer] said... I can start kicking them out, I can start giving everything to Company-X (X11), for the customer, our integration was important only because they could reduce the number of suppliers, which was one of their key objectives (X16), we became a large company offering a broad range of services to meet customers' complex needs, from extremely time-sensitive premier services to standard services (X18), offering more opportunities, combination possibilities (X19), we doubled our service menus, which made it possible for us to respond to customers' ever changing supply chain needs... It also helped the customers to reduce their number of transportation suppliers (X20).

[Customer] Company-X became more important for us and us for them, this had a very big positive impact on our price or rates... after the merger we could bring more volume to convince Company-X who was looking for big business with us (C3), Company-X brought more options, more possibilities... the bigger the company, the better the conditions they can offer because of internal synergies between different business units. (C13).

E: Broadened service portfolio (the dark side) that was hard to sell and hard to be understood.

[Supplier KAM] customer did not really understand what we were offering just by reading our tender document or product brochures (X4), we were a victim of our own success in terms of the marketing of the Company-X brand because they then perceived us as a one-stop shop whereas in reality we were not (X5), it was a very difficult experience... they had advertised that before we were told how to do it (X9), it's difficult for us but also for customers to understand the differences (X13).

## 6) Change in Pricing Strategy

The newly appointed commercial management team tried to drastically increase prices, which caused tensions with customers and some of them switched to other service providers.

[Customer] came with a proposal to have an increase of the rates by 180%... we didn't even go into a negotiation... we completely terminated the contract with Company-X (C1), we had an agreement on prices but then after mergers and acquisitions, Company-X said the prices were not relevant any more, that they needed to be increased by 30% (C2), relatively senior guy, came on board with new ridiculous rate proposals (C9), the communication for the price increases was extremely negative... due to the integration with Company-X, as Company-X had other ways of calculating a margin by which we were very unprofitable for Company-X. This was communicated to us in a very direct and unpleasant way... in the end it was ok otherwise I wouldn't stay with Company-X (C16), we knew that this [aggressive pricing from Company-X3] could not last forever... That was a tension between Company-X account manager and us because they always tried to increase the price much more than we wanted to see (C18).

## 7) Aggressive Corporate Re-branding Campaign

The aggressive corporate re-branding campaigns (e.g. one-stop shopping concept) the organisation carried out at the beginning of the integration raised customer expectations. However, since the organisation did not deliver what they promised, the customers were disappointed.

[Supplier KAM] we over-promised especially timeframe. We promised to harmonize service portfolio in a couple of years but after 5 years we are still tackling that (X3), customer expected Company-X brand to propose integrated services... which has never been done until today... a lot of expectation in the beginning but slowly but surely the expedition went down (X6), customer was certainly expecting to have one single contact being the expert in all the products of Company-X, keep on dreaming – it never happened... they were expecting more than we could give... customer's perception or expectation was to get all our services dramatically improved, but they were disappointed because in reality it was not the case or even worse (X7), we communicated externally like "we can do everything; a one-stop shop solution for the customer"... a customer said to me that if you could combine them [services from Company-X1, X2 and X3], you could save cost and my price could go down... the customer was thinking that with high expectations but we were not meeting his expectations (X13), [customer perception of the integration] was pretty positive at the beginning, the customer thought we're changing the market for them, but in the end we realised that the cross business unit cooperation did not work as we originally thought... we promised a lot but we were not able to deliver everything on time and therefore we did not keep our word... we did not have the right

level of capability to make them happen (X14), we talked about a common IT tool in order to track and trace order shipments for premier and standard services but at the end the project was completely stuck and frozen... we created a huge level of expectation but we did not deliver everything (X15), the first one or two years of the integration, the customers perceived it positively even though our pace of integration was not fast enough, because they expected the integration to reduce purchasing complexity and lower the overall logistics costs. But three or four years later, at the end of 2005, we still didn't deliver that (X16).

**[Customer]** Company-X communicated a lot but I didn't see any benefits at all, not so far, only problems. I think Company-X did acquisitions only for financial reasons (C2), we had a higher expectation... Company-X still has not succeeded in doing that, so I think it would still take some years before they solve that (C3), the promise made before or during the integration was not delivered... new Company-X would serve all your logistics needs from standard to premier services. But you are still separate companies with several business silos... it was just a marketing message or even a lip service (C17), when Company-Y brought the famous one-stop shopping concept, I thought it's great. But it took too much time and it's still not there... it would take for ever (C18).

## 8) Unstable Post-M&A Environment

Commercially/operationally unstable and changing environment was created as a result of the integration, which allowed the organisation's rivals to take some customers away.

**[Supplier KAM]** the competitors always attack us when something wrong happens and during the integration many customers accepted offers from them due to our operational chaos (X1), competitors tried to use this opportunity to steal our customers, not by lower price and more stable service performance but by confusing customers with wrong information (X3), when we were going through the big changes, the competition tried to show to the customer their stability, consistency etc. (X4), our competitors used this opportunity [less focus on customer] as much as possible to play on suppliers' fears that we would no longer be able to service their requirements (X5), during the time of the changes, the customer had some uncertainty feelings because our competitor was telling them that the integration would fail, it's going to be disaster for you (X7), the competition made good use of our bad news and told the customers that Company-X was focusing on its integration so you couldn't expect good services anymore etc. They tried to change the customer perception and the customers who experienced our wrong deliveries, bad

*customer service...etc. listened to the competition (X13), when we were in the middle of the integration we were not very active in the market and the competitors took this opportunity, approached our customers and at the end of the day increased their competitive positions (X14), it is very common in the industry that if our competitors would merge together, we would be ready to investigate what would be happening in the market because there would be a lot of changes inside the merging companies, which would cause a lot of conflicts and crisis within them and then we can easily capture opportunities from their customers (X15), since the personal relationship was coming under pressure during the integration... the customer started to look for alternatives... as soon as a Company-X account manager left, Rival-A or Rival-B knocked on the door (X17).*

**[Customer]** *the performance dropped a lot during the transition and we had to seriously consider changing supplier... partially switched to another supplier (C2), you can't win back the lost business immediately, you have to wait 2-3 years to get the next chance (C5), Rival-E was a back up during your strike but actually we realised that their performance was not so bad. So after a couple of years we rebuilt a relationship with Rival-E and we now use them as a main provider (C9), we switched our UK distribution part from Company-X to Rival-B, because its on-time performance... went down to 92% or below... our English colleagues were not very happy... so even though we had a very good and strong relationship with Company-X here at European DC (C10).*

#### **4. Additional Findings**

Aside from the main discussions above, there were also interesting and insightful arguments in the open-ended (why/how) part of the interviews, which led to the following additional findings:

##### **1) Perceptual Difference between the Merging Parties (Internal View)**

Company-X2 employees perceived the M&A/integration as the way to prosper in the market, whereas Company-X1 employees perceived it as the way to survive.

**[Company-X2 Employee]** *what we literally told the customers, forget about Company-X2, it's Company-X now, we have totally different standards, we have European procedures... European expertise and best practices from the other countries... It was an exciting period for us (X8), I see the whole integration as a positive thing... It was tough... but I said to myself "yes this is a company I want to go with" (X11), the name of Company-X brought a*

*lot of value and certainty, especially from standard services point of view... another world opened (X19).*

**[Company-X1 Employee]** *we moved from a specialised niche player to a large one and probably if we had not been merged with Company-Y, we would not be in the market today... the fact that having cash rich Company-Y behind us positively impacted the relationship with our customers ensuring our financial stability (X14), Company-X wouldn't have survived if we had only offered premier services. We needed to have alternatives... (X18).*

## **2) Customers' M&A/Integration Experiences and Reflections**

Customers who had experienced their own M&A/integration in the past knew the difficulties and reacted to the integration cautiously. On the other hand, customers who were in their own M&A/integration at the same time continued or increased business with the organisation due to their own internal priorities and/or purchasing consolidation effects.

**[Customer]** *we were also in a transition in the same years so I couldn't afford to have too many things open... If we were in the situation like now... the impact would be different from our side... we would switch to another supplier... Company-X was simply lucky that we were in the transition at the same time (C2), we have also done some mergers and then lost some customers, when you merge one and one you never get two, you end up with one and a half because customers don't want to put all their eggs in one basket... when there are such big changes to be done, we always have to wait and see what is going to happen... So the first impression of the integration was like 'be careful'... we understand the problems Company-X had because we also have integrated a lot of companies including competitors (C3), [we] also did a lot of acquisitions, so we know how hard it is to integrate all the businesses and meet internal expectations. Before the integration, we identified a lot of potential synergies but it was very hard to capture them, because of cultural problems that went on for many years, differences in management style and leakage of experience and knowledge... We also experienced our supplier's integration in the past, when a local niche player was acquired by Rival-B. I think about 80% of the acquired employees left the company and we needed to re-build our relationship with new people from scratch. We know the impact of the integration from our experiences and so when we heard about the merger [Company-X mergers and integration] we said to ourselves 'be careful' (C8), as part of our own integration process, the transportation sector was reviewed to select one supplier of shipping services.*

Company-X was selected (C14), we took over some small companies and then integrated them with our transportation contract, so that's why we increased the business (C16), we experienced a lot of acquisitions within our organisation, so we know how it works or how it doesn't work (C17).

### **3) Perceptual Changes from Positive to Negative**

Some positive customers during the integration turned out to be negative due to the changes (disintegration) the organisation made after the integration.

**[Customer]** *The one-stop-shopping concept that Company-X brought was the main driver for us to form a strong partnership with you... The Company-X integration between 2003 and 2005 was perceived as a very positive move. However, after that Company-X disintegrated its Freight business and then separated international and domestic business in some countries, which is perceived as a negative move... We are not satisfied with the current organisational setup of Company-X, you are going back to the pre-merger stage (C6), we have the impression that Company-X is starting to put rules between their organisations... it doesn't promote... the corporation towards us... in the past [during the integration] it was very simple, they represented Company-X as one company with one face, now if we have a meeting with you, you bring three or four account managers... I don't actually consider Company-X as one company any more (C7).*

### **4) Current Status (Negative-side)**

Over three years after the official completion of the integration, some supplier KAMs think it is still underway, while some customers think the organisation is not yet integrated and perceive local profit and loss (P&L) management as one of the roots of the issue.

**[Supplier KAM]** *five years later we are still doing integration... there are still many things which are not integrated (X10), We tried all the things and at the end it did not work out to make combinations from the same network, so we split again and that's what we still see happening right now (X13).*

**[Customer]** *Company-X still has much to do, they merged the companies but not the organisation... I still see that they work with different systems... if you look at invoices from each division, they are all different, which is one of the things that should have been solved after 5 years (C3), fighting against each other to improve your divisional or local*

*P&L's (C6), the impression we are getting is that they [Company-X entities] are all trying to work for their own P&L... they have their targets and they will do everything to get their targets but that's not always the best case... for the brand Company-X. (C7), I accepted this [IT misalignment] during the integration, but it's still the case now... I know each country office has its local P&L responsibility but if you really think about customer's benefits, I think they can take a more coordinated approach (C17), Company-X is still not one company and it probably never will be because it's too huge, it's too huge (C18).*

## 5) Current Status (Positive-side)

Some supplier KAMs think that the organisation now is customer/solution oriented, while some customers think that it is now time to start/expand business with the organisation.

**[Supplier KAM]** *several years after the integration, we can now say that we are putting customers first (X2), Company-X today it's the only organisation that can offer a real one-stop shop on the market (X11).*

**[Customer]** *now that flexibility is there, Company-X understands the customer, they can adapt to the customer, they are interested in knowing the customer needs (C5), after 5 years, I think now it's time to open our door, we now have a feeling that the integration is over ... I see they have changed... I feel a benefit now from Company-X to work on the European level... I feel that you're becoming more mature at least to what I'm looking for as a service offering (C8), now I can feel that customers are important at Company-X and I have a feeling that we can realise something together (C9), it was just last year, 4 years after the integration when we started to reconsider using Company-X standard services for our business (C17), Pan-European one-stop services... the only player who can do it in the future is Company-X (C18).*

# XI. OVERALL RESEARCH FINDINGS

## 1. Key Findings

What follows is a brief summary of the key findings from three separate streams of data analyses, linking back to the original starting point assumptions.

First, the archival records supported the following starting point assumptions: 1) the organisation suffered operationally and financially during the integration, 2) as a result, it lost its market share substantially during the integration, and 3) its employees perceived the integration (very) negatively.

Second, the documentation information supported the following starting point assumptions: 1) the aim of the acquisitions was well understood by the market — to be a global logistics player and by realising group synergies ultimately be the one-stop shopping provider, but 2) the integration was perceived negatively by the market — operational disruptions, stagnating revenues and losing market share.

Finally, the supplier KAM and customer interviews delivered the following outcomes:

- The literature-based conceptual model was endorsed by all the interviewees (business managers),
- Clarified 22 key variables<sup>14</sup> that influenced the customer relationship quality and loyalty during the integration,
- Identified 14 key relationship variables<sup>15</sup> that were particularly impacted by the integration either negatively or positively,
- Causal maps were developed by exploring supplier KAM and customer perceptions, which infers an underlying mechanism of the integration effects on customer relationships.

The interview results supported the following starting point assumptions: 1) the key relationship variables in a business as usual situation were more or less the same during the integration, 2) both supplier KAMs and customers perceived the integration in a (very) negative manner in general although approximately 10% of them perceived it in a positive manner, and 3) there was an interrelationship between the customer's trading record (up/down trading) and perceived integration effects during the integration.

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<sup>14</sup> 19 key variables in B-A-U + newly identified 2 variables (IT capability and Organisational culture) + 1 variable that became important during the integration (Psychological contract).

<sup>15</sup> 11 key variables + newly identified 2 variables (IT capability and Organisational culture) + 1 variable (Multi-channel integration) identified during the open-ended discussions.

## **2. M&A/Integration and Customer Relationship Model**

It was decided to consolidate the interview data from the supplier KAMs and the customers because 1) the systematic literature review (Project-1) indicates that there is a considerable overlap in the key relationship variables between the sales management studies (supplier's view) and the customer relationship studies (customer's view), 2) the supplier KAMs (interviewees) were requested to represent their key customers' views (Fynes and Voss, 2002) in this study, and 3) there was a general consensus in the importance rating and M&A impact rating between the two in this study.

By integrating the key findings in this study, the M&A/Integration and Customer Relationship Model (**Ch-3 Figure 26**) was developed to support the overall research proposition. The model can be explained as follows:

### **[Basic Principles]**

The core part of the model (the yellow boxes and connections) was developed through the systematic literature review and fully endorsed by the business managers (supplier KAMs and customers) through the interviews:

- It is not a company's internal factors alone but complex systems that determine its business performance. Among other things, customer relationship is supposed to have a significant impact on the performance through some kind of chain effect,
- Suppliers' customer relationship management activities have a direct positive/negative effect on perceived relationship quality,
- The relationship quality factors (perceived product/service quality, customer value, trust in supplier, satisfaction and commitment to supplier) are related to each other and drive customer loyalty (i.e. customer's intention to continue or expand business with the supplier),
- Customer loyalty is also directly affected by some of the customer relationship management activities and, as a result, affects a supplier firm's business performance (e.g. share-of-wallet, market share and profitability),
- The correlations above are not only determined by the trading parties but also positively/negatively influenced by the external and conditional factors.

### [In the Logistics Industry, Business as usual]

Importance of the factors above (customer relationship variables and external/conditional factors) may differ by industry. In the logistics industry, 20 variables<sup>16</sup> are considered to be important, out of which the following five variables are viewed as critical: Service performance, Customer orientation, Price/cost, Account management quality and Complaint handling.

### [During the M&A/Integration]

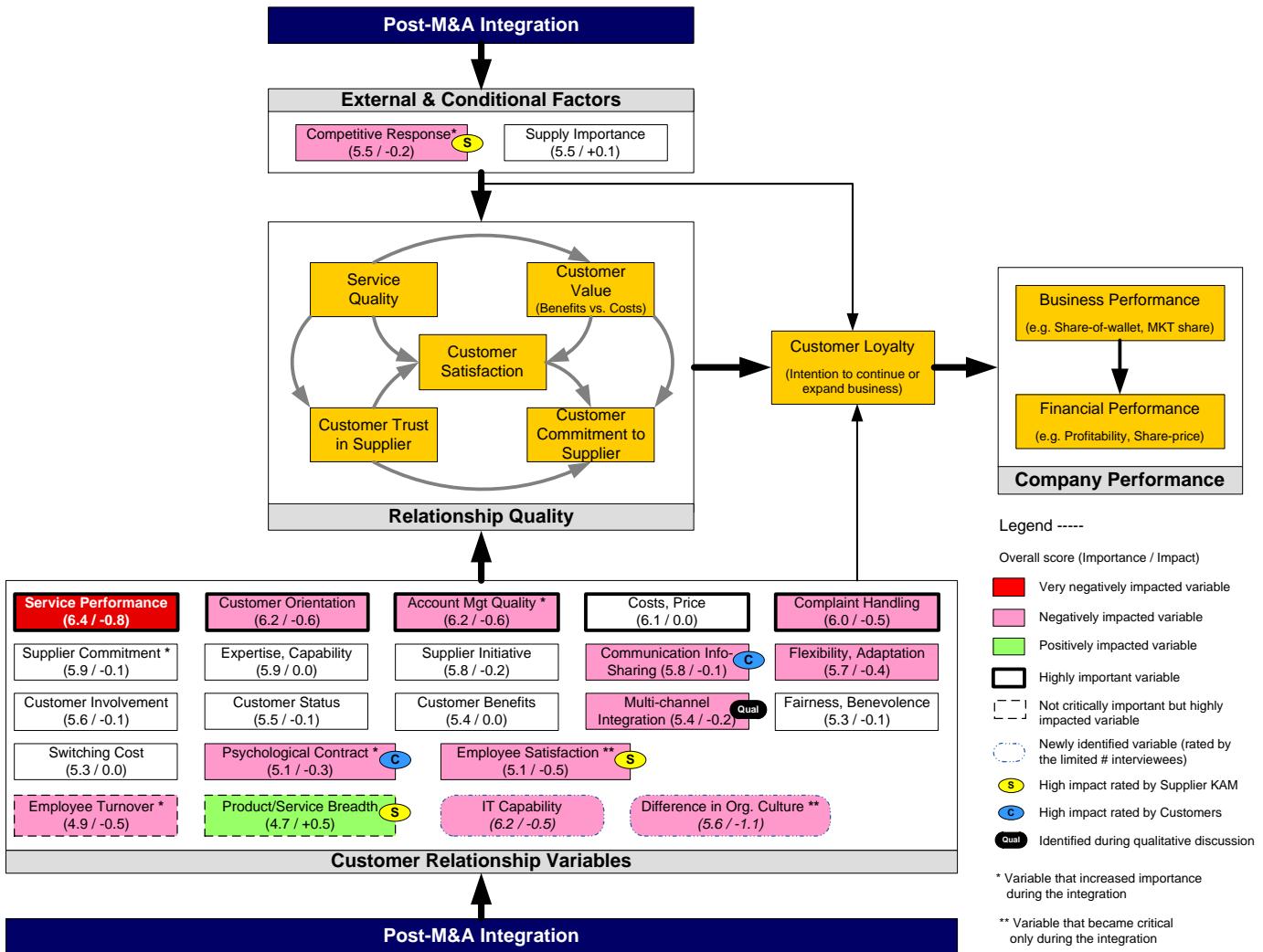
During the integration, two more variables (psychological contract and difference in organisational culture) were viewed as important additions to the above, hence 22 variables were considered to be important. A summary of the integration effects follows:

- 13 variables (including Service performance, Customer orientation, Account management quality, Employee turnover and Flexibility/adaptation) were highly and negatively impacted by the integration, while only 1 variable (Product/ service breadth) was highly and positively impacted — this negative effect on operations and people was also supported by the archival records (the operational disruptions in 2004/2005, the drop of employee satisfaction in 2004 and perceived organisational/operational/people issues within the organisation) and the documentation information (analysts' reports during and after the integration e.g. significant operational/service disruptions).
- Since 3/4 of the key variables were negatively impacted, the level of customer relationship quality and loyalty was also negatively impacted as a consequence — this consequence was supported by customers' perceptions such as 'did not feel valued', 'lost confidence', 'frustrated/annoyed' and 'disappointed', identified through the interviews.
- When the level of customer relationship quality and loyalty was negatively impacted, the organisation's business performance (share-of-wallet and market share) was also negatively impacted as a result — this performance impact was supported by the archival records (the drop of revenues from European Key

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<sup>16</sup> 19 key variables + newly identified 1 variable (IT capability).

Accounts in 2005 and declined market share in 2003-2006), the documentation information (analysts' reports during the integration e.g. worst revenue growth and lost market share to Rival-A/Rival-B) and the customer interviews (about half of them partially/totally switched to other providers).



**Ch-3 Figure 26: M&A/Integration and Customer Relationship Model**

### 3. Underlying Mechanism

The open-ended (why/how) part of the interviews inferred the following potential causal correlations, or underlying mechanism of the integration effects (the consolidated causal map can be found in Appendix P):

- (1) The operational transition damaged the organisation's on-time delivery performance, which made some customers partially switch to other providers to avoid risking their own customers.
- (2) The organisation's operational standardisation decreased its operational flexibility and urged its customers to adapt to its process. Customers whose needs were not fulfilled by this standardisation switched to other providers.
- (3) The organisational restructuring (namely salesforce integration) created serious internal problems including: a) capacity/capability limitation, b) endless organisational changes that enhanced employees' internally focused attitude and individual uncertainty, c) high level of employee dissatisfaction and employee turnover with knowledge/expertise leakage, and d) misassignment of customers to salespeople. The problems damaged account management quality, complaint handling and customer orientation/commitment, which as a result made the customers feel less valued, less confident and frustrated/annoyed, and in some cases made them switch to other providers.
- (4) The IT integration caused IT-related issues and the organisation lost operational visibility, which made the customers uncertain about its operations.
- (5) A multi-BU megacorporation, created by combining three different group companies, brought some issues including: a) poor customer communication, b) organisational cultural conflicts, c) misalignment in customer interaction channels and d) confusing service offerings. The issues made customers feel uncertain about the operations, confused by the different messages and perceiving higher complexity in dealing with the organisation.
- (6) Change in pricing strategy (i.e. drastic price increase) caused tensions with customers and some of them switched to other providers.
- (7) The aggressive corporate re-branding campaigns (e.g. one-stop shopping concept) at the beginning of the integration raised customer expectations, but since the organisation did not deliver what they promised, the customers were disappointed with the new organisation.
- (8) A commercially/operationally unstable and changing environment was created as a result of the integration, which allowed rivals to take some customers away from the organisation.

The inferences above were all about the negative side of the story. There were, however, some positive developments/effects during the integration:

- (9) A broadened service portfolio enabled customers to reduce the number of suppliers, meet their customers' complex needs and offer cheaper options, which led to an increase in business.
- (10) When the customers were treated well, with dedicated support, they felt valued even during the unstable/changing integration period and continued to do business with the organisation.

Finally, it is noticeable that most key drivers — the operational transition/disruptions, standardisation, organisation restructuring, IT integration, marketing campaign and competitive attacks — were clearly indicated in the archival records and/or documentation information. However, there are two strong negative drivers identified only during the interviews: 'creation of the multi-BU megacorporation' and 'drastic price increase attempts'.

#### **4. Key Informant Review**

As stated in the methodology section, one of the ways to improve the construct validity of the case study is to have key informants review draft reports (Yin, 2003). For that purpose, the author's superior (VP, European Key Account Management at Company-X) was selected to review the consolidated interview data and its implications. He has hands-on integration experiences both in the country office and European headquarters and commented as follows:

*I think this reflects the situation and reality very well both from internal and external points of view. From my experience, customers remember what we said in the past very well even for minor things, which I think is reflected in their perceptions.*

Furthermore, he concluded his review with the following comment:

*To have a complete picture, I think it is important to take our competitors' views as well, although I know it is hard to get their inputs...*

In conclusion, the overall interview findings were supported by an industry veteran, while his point about the competitors' views would be taken as a potential area for future research.

## **5. List of Supplemental Findings**

In addition to the key findings above, there were some supplemental findings related to the M&A/integration effects from the interviews (quantitative and qualitative data), which can be summarised as follows:

- Perceived integration effects are positively associated with trading records — customers who perceived negative effects on the key relationship variables stopped or reduced business with the organisation, while those who perceived positive effects continued or increased business.
- The negative customers who (partially or entirely) switched to other service providers perceived unacceptable service performance, deteriorated customer orientation, poor account management quality and lost flexibility as the most negative effects of the integration.
- The positive/neutral customer who continued/increased business with the organisation appreciated its continued commitment and attractive price offerings but was psychologically disappointed (presumably due to their high expectations for the organisation) and viewed the organisation's high employee turnover as one of the negative developments.
- The Company-X2 (standard domestic service provider) KAMs perceived the M&A/integration as the way to prosper in the market.
- The Company-X1 (premier service international provider) KAMs perceived it as the way to survive.
- Some positive customers during the integration turned out to be negative due to the changes (disintegration) the organisation made after the integration.
- Customers who had experienced their own M&A/integration in the past knew the difficulties and reacted to the integration cautiously.
- Customers who were in their own M&A/integration at the same time continued or increased business with the organisation due to their own internal priorities and/or purchasing consolidation effects.

- Over three years after the official completion of the integration:
  - [Negative] Some supplier KAMs think it is still underway, while some customers think the organisation is not yet integrated and perceive the local P&L as one of the root causes of the issue.
  - [Positive] Some supplier KAMs think that the organisation is now customer/solution oriented, while some customers think that it is now time to start/expand business with the organisation.

## XII. CONCLUSION

The aim of this study was to empirically investigate the impact of post-M&A integration on the merging parties and their customers, focusing particularly on the key factors and mechanisms through a dedicated field study. The research was founded on the conceptual framework derived from the systematic literature review (Project-1) with the following research propositions:

- There is a particular set of customer relationship variables that would strongly influence relationship quality and customer loyalty in the logistics industry,
- Post-M&A integration would negatively/positively affect the key customer relationship variables and external/conditional factors,
- When the key customer relationship variables and external/conditional factors are negatively/positively impacted, relationship quality and loyalty would be negatively/positively impacted and as a result business performance would also be negatively/positively impacted.

Based on the research propositions above, the following research questions were explored:

- 1) How was the business performance of Company-X in Europe during its integration period compared to that in its pre/post-integration period? — Archival records and documentation information
- 2) What are the key customer relationship variables in the logistics industry and which variables are impacted by the integration? — Supplier KAM and customer interviews (quantitative)

- 3) How/why does the integration affect those customer relationship variables? —  
Supplier KAM and customer interviews (qualitative)

The end product of this study was a conceptual model (**Ch-3 Figure 26**) highlighting key internal factors (e.g. service performance) and external factors (e.g. competitive response) impacted by the post-M&A integration as well as a perceptual map (**Appendix P**) implying an underlining mechanism of why/how those factors were impacted by the post-M&A integration in the focal case study.

## **1. Key Findings and Previous Studies**

### ***1) Findings supporting previous arguments in the literature***

The documentation information (M&A aim) indicated the type of the M&As carried out by Company-Y as 'consolidation M&As', referring to the well-known M&A typology (Bower, 2001; Schweiger and Very, 2003). The consolidation M&As typically require high levels of consolidation, standardisation and coordination (Schweiger and Very, 2003) and closing facilities, cutting people and changing processes (Bower, 2001). Therefore the key challenges are resource/people issues, process issues and value/cultural issues (Bower, 2001) and individual fears (or uncertainty), organisational politics, cultural clash, brain drain and lost customers (Schweiger and Very, 2003). These issues are clearly indicated in the archival records (employee surveys) and the supplier KAM and customer interviews.

The documentation (pre/mid/post integration) clarified the integration approach and revealed various problems the organisation faced. The integration approach can be classified as 'absorption' (full integration of organisation, operations and culture), where speed of integration is the key, otherwise employee resistance and performance issues arise (Hampel and Jemison, 1991). These issues are clearly indicated in the archival records (financial performance and employee survey) and the supplier KAM and customer interviews.

The archival records indicated revenue stagnation with profitability improvement and strong negativities among employees during the integration period. These can be

attributed to the arguments that post-M&A cost-cutting activities and uncertainty bring low levels of employee morale/productivity (Clemente and Greenspan, 1997), employee satisfaction strongly affects organisational productivity especially in service industries (Schweiger, 2002) and cost saving focus damages momentum of revenue generation, which leads to poor financial performance (Bekier and Shelton, 2002; Mudde and Brush, 2004). These issues are clearly indicated in the documentation information (pre/mid/post integration) and the supplier KAM and customer interviews.

The quantitative part of the interviews identified 14 key customer relationship variables that were particularly impacted by the integration. Some of them (four out of 14) are also discussed in the literature as negative integration effects — service performance issues or operational disruption (Bekier and Shelton, 2002; Palmatier et al., 2007), drop in account management quality (Bekier and Shelton, 2002; Palmatier et al., 2007), no clear customer communication (Clemente and Greenspan, 1997) and enhanced competitive attacks (Bekier and Shelton, 2002; Clemente and Greenspan, 1997).

The qualitative part of the interviews revealed six key intervening/accelerating factors that affected the customer relationship variables. Some of them (two out of six) are also discussed in the literature as negative integration effects — supplier employees' internally focused attitude (Bekier and Shelton, 2002; Schweiger, 2002) and knowledge/expertise leakage due to the departure of key people (Schweiger and Very, 2003).

In summary, the archival/documentation and interview data in this study provided empirical support to the arguments above in the literature.

## **2) Findings supporting previous empirical studies**

Some of the key customer relationship variables (six out of 14) identified in the quantitative interviews are consistent with the previous empirical studies — customer orientation (Homburg and Bucerius, 2005), flexibility (Tunisini and Bocconcelli, 2005), employee satisfaction and employee turnover (Schweiger and Very, 2003; Zollo and

Meier, 2007), product/service breadths or extension (Anderson et al., 2003b; Schweiger and Very, 2003) and organisational culture (e.g. Ashkanasy and Holmes, 1995).

The qualitative part of the interviews revealed eight key integration factors as triggers for all the integration issues in study. Some of them (four out of eight) are consistent with the previous empirical studies — IT integration (McKiernan and Merali, 1995), salesforce integration (Bekier and Shelton, 2002; Clemente and Greenspan, 1997; Homburg and Bucerius, 2006), change in pricing strategy (Anderson et al., 2003b; Havila and Salmi, 2000) and unstable post-M&A environment (Clemente and Greenspan, 1997; Hartog, 2004; Haspeslagh and Jemison, 1991; Schweiger and Very, 2003).

One of the key intervening/accelerating factors identified in the qualitative interviews is consistent with the previous empirical studies — employee's individual uncertainty (e.g. Hartog, 2004).

The qualitative interviews also revealed nine key drivers for customer's switching behaviour. Some of them (two out of nine) are consistent with the previous empirical studies — uncertainty about the operations (Anderson et al., 2003b; Bekier and Shelton, 2002), and lost confidence in the relationships (Havila and Salmi, 2000).

The archival records (financial performance and market share), the documentation information (pre/mid/post integration) and the supplier KAM and customer interviews indicated the correlation between the integration activities, market share and financial performance, which is consistent with the previous empirical study — market share is positively associated with post-M&A financial performance (Homburg and Bucerius, 2005).

Furthermore, the argument based on the archival/documentation and interview data in this study — when the level of customer relationship strength was negatively impacted, the organisation's business performance was negatively impacted as a result — is consistent with the previous empirical study: integration process performance (including impact on the customer) influences customer retention and overall acquisition performance (including cross-selling and customer relationships) which affects financial performance (Zollo and Meier, 2007).

In summary, some of the key findings in this study support those in previous empirical studies with no contradictions.

### ***3) Findings entirely new in the field of study***

As stated earlier, this study revealed an underlying mechanism of the integration effects on customer-supplier relationships. In addition, it identified factors/variables that have not been covered in previous studies. These factors/variables are:

- Key integration factors (four out of eight): operational transition and standardisation, establishment of a complex megacorporation and corporate re-branding campaign,
- Key customer relationship variables (four out of 14): complaint handling, psychological contract (i.e. expectation vs. deliverables), IT capability (e.g. visibility in operations) and multi-channel integration (alignment of customer interaction channels),
- Key intervening/accelerating factors (three out of six): endless organisational changes, capacity/capability limitation and misassignment of customers to salespeople,
- Key switching drivers (seven out of nine): customers' feeling/perception that they are risking their own customers, no longer fulfilled needs, confusion with different messages (no single point of contact), increased complexity (not easy to work with), tensions with the supplier (price negotiation), less valued (by the supplier) and frustration with unsolved issues.

## **2. Contribution**

As well as the already known M&A/integration impacts, such as financial performance issues (e.g. Sirower, 1997), integration process issues (e.g. Haspeslagh and Jemison, 1991), cultural clash (e.g. Ashkanasy and Holmes, 1995), lost identity (e.g. Van Dick et al., 2006) and top management turnover (e.g. Angwin, 2004), this study brought new understandings to the phenomenon — what impacts on customer-supplier relationships during the integration and why/how.

Recently there have been some studies about the impact of M&A/integration on customer relationships either through qualitative methods (e.g. Anderson et al., 2001) or quantitative methods (e.g. Zollo and Meier, 2007). However, since this research area is relatively new and has received limited attention in the M&A literature (Anderson et al., 2001; Schweiger and Very, 2003), operational, account management and psychological aspects of the studies are largely underdeveloped.

This study contributes to the advancement of the research field by suggesting a potential underlying mechanism of the M&A/integration effects on customer-supplier relationships, which can be explained by the following factors and their interrelationships:

- Consolidation M&As with full integration (absorption) lead to the eight key integration factors (e.g. operational transition) that act as a trigger for all the integration issues identified in this study,
- The integration factors pose a negative impact on the 14 key customer relationship variables (e.g. service performance) in most cases,
- The integration factors also give rise to the six key intervening/accelerating factors (e.g. internally focused attitude) that enhance the negative impact on the key customer relationship variables,
- The key customer relationship variables negatively impacted by the above factors generate the nine key switching drivers (e.g. lost confidence in the relationships) that make customers decide entirely/partially to terminate business with the supplier.

The findings above have been built from customer voices and supplier KAMs' views combined with confidential/public company data and market perceptions. This is essential because it is claimed that customer data along with company data need to be extensively used to deepen the understanding of drivers for customer reaction to M&As (Homburg and Bucerius, 2005).

Furthermore by integrating a systematic literature review of customer relationship management and an empirical research in post-M&A integration, this study presents a broader view of the impact of M&A/integration. This is notable because the fact that

market-related issues have been neglected in the literature may explain the reason why decisive factors for M&A success are still unknown (Homburg and Bucerius, 2005).

Aside from the contents contributions above, this study also made the following methodological contributions.

First, this study introduced a new application of the Q-sorting technique (a data collection part of the Q-methodology, see the section **IV. Data Collection Method**) in the interviews as a way not only to rank order the variables in study but also to prioritise them for further exploration. The modifications made in this study are: 1) allowed participants to add their own thoughts as missing variables, 2) allowed them to assign variables (Q-cards) with free distribution, and 3) asked them to explore why/how things happened, focusing on highly important/impacted variables. The applied method worked well with business managers, enabling them to focus on the topic and explore their past experiences in a logical manner within the agreed interview timeframe (45-60 minutes).

Second, this study applied a combination of structured data displays and causal mapping techniques (see the section **V-5. Qualitative Interview Data Analysis**) as a way to systematically explore/analyse rich qualitative interview data. The combined data analysis method worked well, helping the author to prioritise variables for in-depth investigation and to reveal an underlying mechanism of the phenomenon.

The data collection and analysis method used in this study can be applied in many cases especially for interviews in the business management field.

### **3. Managerial Implications**

Service disruptions during the operational transition period can be inevitable, which is the most negative side of the integration. Some customers may immediately switch to other providers, while others may accept the situation and give an opportunity for improvement. To mitigate the risk of losing customers by the service disruptions, it is advisable to take the following actions:

- (1) Complete IT integration prior to the operational transition in order to secure operational visibilities.

- (2) Assign dedicated account management (team) for important customers to handle all the customer issues:
- This would not be easy because — *It's one of the McKinsey slogans "integrate the best and then let the rest go", however the best people very often leave first, they are being all the time targeted (X16).*
  - However the effect is considerable — *the key contact person came here and announced the merger... in a very positive way to take our fears away... they looked motivated and that's why they succeeded in convincing us (C3).*
- (3) Minimise internal radical changes, otherwise the root causes of various problem: employees' internally focused attitude will diffuse within the entire organisation, which will:
- Damage, among other things, employee motivation/satisfaction, account management & complaint handling quality and customer orientation,
  - As a result, customers feel less valued and lose confidence, and may switch to other providers.
- (4) Minimise changes for customers, considering that they are cautious about the integration effects and that competitors are seeking bad news ready for their attacks — *Customers who did not experience many changes from us perceived the integration as positive, on the other hand, customers who experienced many changes, such as price increase, perceived it very negative, we lost most of them (X19).*
- (5) Try to under-promise and over-deliver to customers, otherwise their (unachievable) high expectations remain for too long, which may lead to unexpected customer dissatisfaction.

#### **4. Limitations and Future Research**

There are some limitations in this study, which should be acknowledged, together with areas for future research.

First, as stated in the research methodology section, this study was dependent on the interviewees' retrospective memory of the integration that took place four to six years ago. The issue is acknowledged but it may not seriously damage the credibility of the

research data for the following reasons. M&As are major events and thus expected to be recalled more accurately and completely (Huber and Power, 1985, cited in Schoenberg, 2006), which is demonstrated by some interviewees' lively comments, for instance: "...*a proposal to have an increase of the rates by 180%...*" (C1) and "...*on-time performance used to be 94-95% but it went down to 92% or below...*" (C10). Furthermore, the fact that the author did not observe any of the interviewees expressing difficulty at recalling the events would support the argument above.

Second, one may question the validity of the retrospective interviews by claiming that managers would rationalise their decisions over time. However, the interviewees are not top executives who decided to carry out the series of M&As, but sales managers who actually experienced the post-M&A integration and acted as company representatives to the customers. Therefore it may be apparent that, as such, their views are not biased.

Third, considering the fact that this study is based on a single supplier case with the limited number of respondents/interviewees (20 supplier KAMs and 20 customers), the findings cannot be generalizable. The limitation is acknowledged and this issue should be tackled in the next empirical research project (Project-3).

Finally, one of the interview participants pointed out that findings based only on the voices of current supplier KAMs could be biased, knowing that they were all survivors after the integration. Another interview participant suggested that it would be desirable also to obtain the views on the integration directly from competitors. It was decided to keep these points outside the scope of the study, considering the difficulty of approaching retired KAMs and direct competitors in this research setting. However, their suggestions are valid and future research will hopefully tackle those issues. To do so, a longitudinal research method (e.g. Ashkanasy and Holmes, 1995) could be applied for the former issue, while a competitive response research setting (e.g. Chen and Miller, 1994) could be applied for the latter.

## Appendix A: Variables and Definitions (for supplier KAM, 1/2)

Variables		Definition (for supplier KAM)	Source
Loyalty	Customer loyalty	Customer's intention to continue or extend business with Company-X and provide positive word-of-mouth (recommendation) about Company-X to his/her business partners	Cannon and Homburg, 2001; Stock, 2005; Rauyruen and Miller, 2007; Lam et al., 2004; Ulaga and Eggert, 2006
Relationship quality	Service quality	Customer's perceived gap between expected service quality and actual service quality	Parasuraman et al., 1985
	Value	Customer's perceived 'Benefits - Costs'	Ulaga and Eggert, 2006
	Satisfaction	Customer's overall satisfaction with Company-X	Homburg and Rudolph, 2001
	Trust in people	Perceived credibility/reliability, openness and trustworthiness of Company-X people (employee-level)	Doney and Cannon, 1997
	Trust in company	Perceived credibility/reliability, openness and trustworthiness of Company-X (company-level)	Doney and Cannon, 1997; Brush and Rexha, 2007
	Commitment to people	Customer's motivation to maintain the current relationship due to positive feelings (employee-level)	Rauyruen and Miller, 2007
	Commitment to company	Customer's motivation to maintain the current relationship due to positive feelings and/or financial/operational reasons (company-level)	de Ruyter et al., 2001; Rauyruen and Miller, 2007
Key variables (relationship quality)	Pre-service expectation	Expected service features based on Company-X communications as well as past experience, needs and word-of-mouth	Parasuraman et al., 1985, adjusted based on pilot participant's feedback
	Service performance	Competitiveness of the supplier's service features, reliability and technical/after-sales support	Doney and Cannon, 1997
	Benefits	Perceived core benefits (e.g. service features, required by customer) and add-on benefits (e.g. know-how, personal interaction, not required/clarified by customer)	Ulaga and Eggert, 2006; Homburg et al., 2005
	Cost, price	Direct cost (shipment rates), Acquisition cost (communication, performance monitoring...) and Operations cost (shipment prep, problem solving...)	Cannon and Homburg, 2001; Lam et al., 2004; Ulaga and Eggert, 2006
	Satisfied employees	Perceived job satisfaction of Company-X frontline employee(s)	Homburg and Stock, 2004
	Flexibility, adaptation	Company-X's capability/willingness to make changes (in process) to meet customer (changing) needs	Cannon and Homburg, 2001; Cannon and Perreault, 1999; Stock, 2005; Homburg et al., 2005; Hansen et al., 2008
	Communication, info-sharing	Company-X's open info-sharing about sensitive/critical issues and/or advance info-sharing about changes (e.g. price, service)	Cannon and Homburg, 2001; Cannon and Perreault, 1999; Nielson, 1998; Brush and Rexha, 2007; Hansen et al., 2008
	Fairness, benevolence	Perceived goodness and/or fairness of Company-X (e.g. Its willingness to satisfy both parties)	Johnson et al., 2001; Patterson et al., 1997; Abdul-Muhmin, 2005; Selnes and Gønhaug, 2000
	Account mgt quality	Perceived contact quality (e.g. appropriateness of visit/call), characteristics (e.g. friendliness), attitude (e.g. proactiveness) and power (e.g. access to resource) of Company-X's account manager(s)	Workman et al., 2003; Doney and Cannon, 1997; Liu and Leach, 2001
	Bonding activities	Perceived strength of legal bonds (ties at company-level, e.g. contractual agreement) and social bonds (ties at individual-level, e.g. friendship, social network) with Company-X	Gounans, 2005
	Switching cost	Associated cost, effort, time and risk to switch Company-X to alternative suppliers	Lam et al., 2004
	Supplier commitment	Company-X's desire and effort to maintain the current relationship with the customer	Nielson, 1998; Homburg et al., 2005

## Variables and Definitions (for supplier KAM, 2/2)

Variables	Definition (for supplier KAM)	Source
Key variables (relationship quality)	Expertise, capability	Perceived capability and expertise of Company-X employee(s) Liu and Leach, 2001; Sengupta et al., 2000
	Customer orientation	Company-X's attitude/behaviour to 'put the customer first' and nurture the current relationship Nielson, 1998; Kingshott, 2006
	Complaint handling	Company-X's complaint handling speed and quality (e.g. process, behaviour, compensation) Homburg and Rudolph, 2001; Homburg and Fürst, 2005
	Customer status	Perceived privileges provided by Company-X (e.g. higher priority, better service, lower price...) Palaima and Auruskeviciene, 2007
	Multi-channel integration	Customer's awareness of sales channel options (e.g. account mgr, customer service, Web) and perception of cross channel consistency Madaleno et al., 2007
	Employee turnover	Turnover of Company-X's key frontline employee(s) Bendapudi and Leone, 2002
	Supplier initiative	Company-X's proactive actions to improve its customer's competitive position Brush and Rexha, 2007
Key variables (loyalty)	Cost, price*	* See relationship quality variable
	Switching cost*	* See relationship quality variable
	Bonding activities*	* See relationship quality variable
	Complaint handling*	* See relationship quality variable
	Customer involvement	Involvement of the customer DMU (decision-making unit) for supplier/solution selection. Bennett et al., 2005, adjusted based on pilot participant's feedback
	Product/service breadth	Breadth of Company-X's service portfolio compared to its rivals Wathne et al., 2001
External & conditional factors	Competitive intensity	Competitive intensity of the market (e.g. service and price competitions between Company-X and its rivals.) Workman et al., 2003
	Market dynamism	Degree and frequency of changes in customer's service preferences Workman et al., 2003
	Acceptable alternatives	Availability of acceptable alternative suppliers for the target services Cannon and Perreault, 1999; Brush and Rexha, 2007
	Relationship length	Length of the customer-supplier relationship Stock, 2005; Deshpandé and Farley, 2002
	Supply importance	Strategic, financial and operational significance of the purchase (logistics service) to the customer Cannon and Perreault, 1999; Stock, 2005; Patterson et al., 1997
	Supply complexity	Complexity of customer needs, Company-X services and purchase decision making Cannon and Perreault, 1999; Stock, 2005; Patterson et al., 1997
	Company size	Customer's company size relative to Company-X Stock, 2005; Doney and Cannon, 1997
	Supplier reputation	Overall reputation of Company-X compared to its rivals Hansen et al., 2008
	Cultural differences	Difference in national culture characteristics between the customer (e.g. French) and Company-X (e.g. German) Homburg et al., 2005; Deshpandé and Farley, 2002
	Psychological contract	Perceived future tangible outcomes (financial/non-financial benefits) and inputs (e.g. resource and support) promised by Company-X Kingshott, 2006

## Appendix B: Variables and Definitions (for customer, 1/2)

Variables		Definition (Customer)	Source
Loyalty	Customer loyalty	Your (company's) intention to continue or extend business with the supplier and provide positive word-of-mouth (recommendation) about the supplier to your business partners	Cannon and Homburg, 2001; Stock, 2005; Rauyruen and Miller, 2007; Lam et al., 2004; Ulaga and Eggert, 2006
Relationship quality	Service quality	Perceived gap between expected service quality and actual service quality	Parasuraman et al., 1985
	Value	Perceived 'Benefits - Costs'	Ulaga and Eggert, 2006
	Satisfaction	Overall satisfaction with the supplier	Homburg and Rudolph, 2001
	Trust in people	Perceived credibility/reliability, openness and trustworthiness of the supplier's people (employee-level)	Doney and Cannon, 1997
	Trust in company	Perceived credibility/reliability, openness and trustworthiness of the supplier (company-level)	Doney and Cannon, 1997; Brush and Rexha, 2007
	Commitment to people	Your motivation to maintain the current relationship due to positive feelings (employee-level)	Rauyruen and Miller, 2007
	Commitment to company	Your (company's) motivation to maintain the current relationship due to positive feelings and/or financial/operational reasons (company-level)	de Ruyter et al., 2001; Rauyruen and Miller, 2007
Key variables (relationship quality)	Pre-service expectation	Expected service features based on supplier communications as well as past experience, needs and word-of-mouth	Parasuraman et al., 1985, adjusted based on pilot participant's feedback
	Service performance	Competitiveness of the supplier's service features, reliability and technical/after-sales support	Doney and Cannon, 1997
	Benefits	Perceived core benefits (e.g. service features, required by customer) and add-on benefits (e.g. know-how, personal interaction, not required/clarified by customer)	Ulaga and Eggert, 2006; Homburg et al., 2005
	Cost, price	Direct cost (shipment rates), Acquisition cost (communication, performance monitoring...) and Operations cost (shipment prep, problem solving...)	Cannon and Homburg, 2001; Lam et al., 2004; Ulaga and Eggert, 2006
	Satisfied employees	Perceived job satisfaction of the supplier's frontline employee(s)	Homburg and Stock, 2004
	Flexibility, adaptation	Supplier's capability/willingness to make changes (in process) to meet your (changing) needs	Cannon and Homburg, 2001; Cannon and Perreault, 1999; Stock, 2005; Homburg et al., 2005; Hansen et al., 2008
	Communication, info-sharing	Supplier's open info-sharing about sensitive/critical issues and/or advance info-sharing about changes (e.g. price, service)	Cannon and Homburg, 2001; Cannon and Perreault, 1999; Nielson, 1998; Brush and Rexha, 2007; Hansen et al., 2008
	Fairness, benevolence	Perceived goodness and/or fairness of the supplier (e.g. Its willingness to satisfy both parties)	Johnson et al., 2001; Patterson et al., 1997; Abdul-Muhmin, 2005; Sernes and Gønhaug, 2000
	Account mgt quality	Perceived contact quality (e.g. appropriateness of visit/call), characteristics (e.g. friendliness), attitude (e.g. proactiveness) and power (e.g. access to resource) of the supplier's account manager(s)	Workman et al., 2003; Doney and Cannon, 1997; Liu and Leach, 2001
	Bonding activities	Perceived strength of legal bonds (ties at company-level, e.g. contractual agreement) and social bonds (ties at individual-level, e.g. friendship, social network) with the supplier	Gounans, 2005
	Switching cost	Associated cost, effort, time and risk to switch the current supplier to alternative suppliers	Lam et al., 2004
	Supplier commitment	Supplier's desire and effort to maintain the current relationship with you (your company)	Nielson, 1998; Homburg et al., 2005

## Variables and Definitions (for customer, 2/2)

Variables	Definition (Customer)	Source
Key variables (relationship quality)	Expertise, capability	Perceived capability and expertise of the supplier's employee(s) Liu and Leach, 2001; Sengupta et al., 2000
	Customer orientation	Supplier's attitude/behaviour to 'put the customer first' and nurture the current relationship Nielson, 1998; Kingshott, 2006
	Complaint handling	The supplier's complaint handling speed and quality (e.g. process, behaviour, compensation) Homburg and Rudolph, 2001; Homburg and Fürst, 2005
	Customer status	Perceived privileges provided by the supplier (e.g. higher priority, better service, lower price...) Palaima and Auruskeviciene, 2007
	Multi-channel integration	Your awareness of sales channel options (e.g. account mgr, customer service, Web) and perception of cross channel consistency Madaleno et al., 2007
	Employee turnover	Turnover of the supplier's key contact employee(s) Bendapudi and Leone, 2002
	Supplier initiative	Supplier's proactive actions to improve its customer's competitive position Brush and Rexha, 2007
Key variables (loyalty)	Cost, price*	* See relationship quality variable
	Switching cost*	* See relationship quality variable
	Bonding activities*	* See relationship quality variable
	Complaint handling*	* See relationship quality variable
	Customer involvement	Involvement of the customer DMU (decision-making unit) for supplier/solution selection. Bennett et al., 2005, adjusted based on pilot participant's feedback
	Product/service breadth	Breadth of the supplier's service portfolio compared to its rivals Wathne et al., 2001
External & conditional factors	Competitive intensity	Competitive intensity of the market (e.g. service and price competitions between Company-X and its rivals.) Workman et al., 2003
	Market dynamism	Degree and frequency of changes in your service preferences Workman et al., 2003
	Acceptable alternatives	Availability of acceptable alternative suppliers for the target services Cannon and Perreault, 1999; Brush and Rexha, 2007
	Relationship length	Length of the customer-supplier relationship Stock, 2005; Deshpandé and Farley, 2002
	Supply importance	Strategic, financial and operational significance of the purchase (logistics service) to your company Cannon and Perreault, 1999; Stock, 2005; Patterson et al., 1997
	Supply complexity	Complexity of your needs, supplier's services and purchase decision making Cannon and Perreault, 1999; Stock, 2005; Patterson et al., 1997
	Company size	Supplier's company size relative to your company size Stock, 2005; Doney and Cannon, 1997
	Supplier reputation	Overall reputation of the supplier compared to its rivals Hansen et al., 2008
	Cultural differences	Difference in national culture characteristics between your company (e.g. French) and the supplier (e.g. German) Homburg et al., 2005; Deshpandé and Farley, 2002
	Psychological contract	Perceived future tangible outcomes (financial/non-financial benefits) and inputs (e.g. resource and support) promised by the supplier Kingshott, 2006

## Appendix C: Pilot Study (v1)

### **1. Initial Pilot Interview Design**

Based on the original research protocol and feedback received during the research panel review on 26-Sep-2008, the initial pilot interview was structured as follows:

**Samples:** Company-X employees (managers) in Marketing & Sales department, who experienced the series of Company-X M&As.

#### **Phase-1: Verification of the conceptual model**

- Question: Do you agree with the conceptual model?
- Materials: The conceptual model with the statement and key factor definitions
- Expected response: Yes (validated) or No (another question: what is wrong?)

#### **Phase-2: Variable screening**

- Question: Do you think the variable (card) affects Relationship Quality and/or Customer Loyalty in business as usual situation (B-A-U)?
- Materials: Q-sorting cards and template
- Expected response: Yes, Yes/No or No

#### **Phase-3: Identification of missing variables**

- Question: Are there any missing variables that affect Relationship Quality and/or Customer Loyalty in B-A-U?
- Materials: Q-sorting cards
- Expected response: Yes (specify the variable and add as a new card) or No

#### **Phase-4: Rank order of the variables**

- Question: Can you rank order the variables you put in the “Yes” box (in Ph-2) considering strength of their impacts on Relationship Quality and/or Customer Loyalty in B-A-U?
- Materials: Q-sorting cards and template
- Expected response: Rank order of the variables (1: negligible to 5: very important)

#### **Phase-5: Explanation (Why)**

- Question: Why do you think these variables affect Relationship Quality and/or Customer Loyalty in B-A-U?
- Materials: Q-sorting cards (max 5) in the template (importance: 5 and 4)
- Expected response: Open-ended explanation of why

#### **Phase-6: M&A time dimension**

- Question: From your experience, which stage of Company-X M&As had a strong impact on Relationship Quality and/or Customer Loyalty --- 1) Pre-M&A (00-01), 2) Announcement (02) or 3) Post-M&A Integration (03-05)?
- Materials: None
- Expected response: 1), 2) or 3)

#### **Phase-7: Variables in B-A-U and M&A**

- Question: Are there any differences in the rank order of the variables (in Ph-4) between the M&A period and B-A-U?
- Materials: Q-sorting cards and template
- Expected response: Yes (select the ones and change the orders), No

### **Phase-8: M&A impact rating**

- Question: Which variables were impacted by Company-X M&As?
- Materials: Q-sorting cards and template
- Expected response: Very positively (+2) to very negatively impacted (-2)

### **Phase-9: Explanation (How)**

- Question: How were the variables impacted?
- Materials: Q-sorting cards (max 5) and template (importance: 5 and 4)
- Expected response: Open-ended explanation of how

### **Phase-10: Feedback**

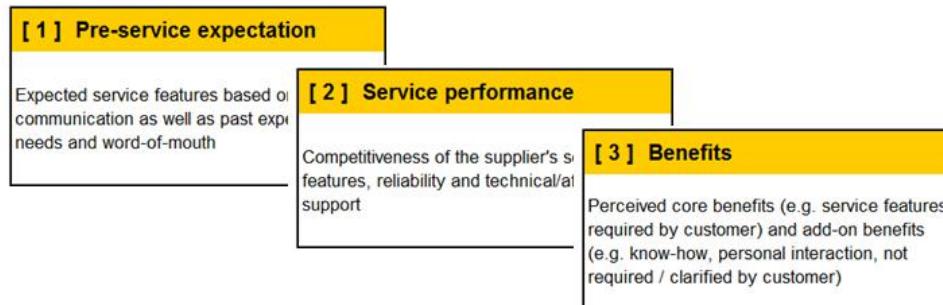
- Question: Can I have your feedback on this interview (room for improvement)?
- Materials: None
- Expected response: Open-ended

## **2. Pilot Interview (part-1)**

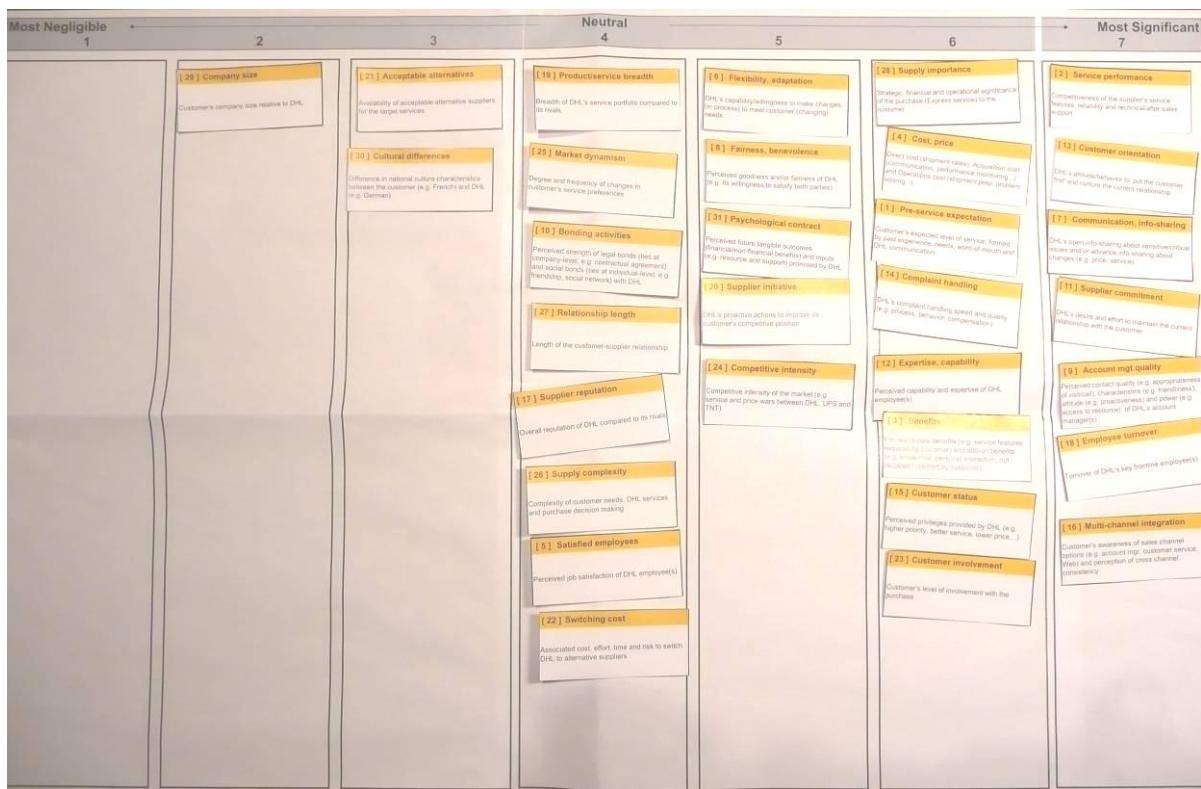
The selected 31 variables from Project-1 are used in the pilot study. To make the report simple and save space, all the variables are noted by the following ID number:

No.	Variable	No.	Variable
1	Pre-service expectation	17	Supplier reputation
2	Service performance	18	Employee turnover
3	Customer benefits	19	Product/service breadth
4	Cost, price	20	Supplier initiative
5	Satisfied employees	21	Acceptable alternatives
6	Flexibility, adaptation	22	Switching cost
7	Communication, info-sharing	23	Customer involvement
8	Fairness, benevolence	24	Competitive intensity
9	Account mgt quality	25	Market dynamism
10	Bonding activities	26	Supply complexity
11	Supplier commitment	27	Relationship length
12	Expertise, capability	28	Supply importance
13	Customer orientation	29	Company size
14	Complaint handling	30	Cultural differences
15	Customer status	31	Psychological contract
16	Multi-channel integration		

31 Q-cards were prepared prior to the pilot interviews — each card has unique ID number, variable title and its definition:



The pilot interviewees were asked to sort the Q-card on the defined Q-sort template. Here is one of the real examples:



Two of the pilot interviews were video-recorded, while three of them were not recorded due to unforeseen technical problems:



The result of each pilot interview was summarized in the following template one by one, including overall feedback from each interviewee:

ID	P-1	Interviewee	CP	Date	08-Oct-2008	Time																																																																											
Ph-1	[Response] Yes [Comment] This makes sense, similar to the concept of service-profit chain.					n/a																																																																											
Ph-2	▪ No: none ▪ Y/N: 5, 10, 15, 16, 17 23, 27, 29, 30, 31 ▪ Yes: 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 18, 19, 20, 21, 22, 24, 25, 26, 28					n/a																																																																											
Ph-3	▪ 32: Supplier's operational continuity — this should be critical considering the importance of customer's supply chain.					n/a																																																																											
Ph-4		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>0</td><td>0.5</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>5</td><td>1</td><td>11</td><td>7</td><td>3</td><td>2</td><td></td></tr> <tr><td>10</td><td>8</td><td>13</td><td>9</td><td>12</td><td>4</td><td></td></tr> <tr><td>15</td><td></td><td>18</td><td>14</td><td>19</td><td>6</td><td></td></tr> <tr><td>16</td><td></td><td></td><td>20</td><td>21</td><td>28</td><td></td></tr> <tr><td>17</td><td></td><td></td><td>24</td><td>22</td><td></td><td></td></tr> <tr><td>23</td><td></td><td></td><td>25</td><td>26</td><td></td><td></td></tr> <tr><td>27</td><td></td><td></td><td></td><td></td><td>P1-32</td><td></td></tr> <tr><td>29</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>31</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	0	0.5	1	2	3	4	5	5	1	11	7	3	2		10	8	13	9	12	4		15		18	14	19	6		16			20	21	28		17			24	22			23			25	26			27					P1-32		29							30							31								n/a
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Ph-5	▪ 2: This is the primary reason why customers work with Company-X. ▪ 4: End of the day, we can never escape from this. ▪ 6: The larger the business, the more demanding the customer becomes. ▪ 28: This is one of the most critical factors for supplier selection and relationship building.					n/a																																																																											
Ph-6	Post-M&A integration period. Customers mainly react to tangible impacts rather than speculation.					n/a																																																																											
Ph-7	[Response] No					n/a																																																																											
Ph-8		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>0</td><td>0.5</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>5</td><td>1</td><td>11</td><td>7</td><td>3</td><td>2</td><td></td></tr> <tr><td>10</td><td>8</td><td>13</td><td>9</td><td>12</td><td>4</td><td></td></tr> <tr><td>15</td><td></td><td>18</td><td>14</td><td>19</td><td>6</td><td></td></tr> <tr><td>16</td><td></td><td></td><td>20</td><td>21</td><td>28</td><td></td></tr> <tr><td>17</td><td></td><td></td><td>24</td><td>22</td><td></td><td></td></tr> <tr><td>23</td><td></td><td></td><td>25</td><td>26</td><td></td><td></td></tr> <tr><td>27</td><td></td><td></td><td></td><td></td><td>P1-32</td><td></td></tr> <tr><td>29</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>31</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	0	0.5	1	2	3	4	5	5	1	11	7	3	2		10	8	13	9	12	4		15		18	14	19	6		16			20	21	28		17			24	22			23			25	26			27					P1-32		29							30							31								n/a
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Ph-9	▪ 2 (-2): Our on-time performance was all time low due to many internal reasons. ▪ 6 (-1): We became very bureaucratic, taking much more time to change a process. ▪ 19 (+2): It became possible to offer much broader services and coverage than others. ▪ 32 (-1): Down-sizing in some business areas and stopping unprofitable services, which potentially made our offerings unstable from customer's point of view. ▪ 7 (-2): We made a lot of empty promises early stage and did not disclose critical issues ▪ 9 (-1): We had limited visibility on our sales performance but needed to deliver short-term results in expense of long-term gains with almost no resource freedom. ▪ 24 (-2): Competitors severely attacked our key customers by focusing on our weakness (e.g. OPS performance issues) and we needed to fight with competitors we didn't know. ▪ 13 (-2): Internal focus and internal competition, customer came last. ▪ 18 (-1): When super sales persons left, they took their customers with them. ▪ 1 (-1): We raised the bar by flashy mass communication e.g. one-stop-shopping. ▪ 5 (-2): Uncertainty and too many changes too often, which made us difficult to focus on business and keep ourselves motivated. ▪ 17 (+1): We became "big name" even outside the industry. ▪ 31 (-1): Promise not written in paper had less effect during the days.			n/a																																																																													
Ph-10	▪ Ph-1 can be simplified or even deleted because it's no point discussing already proved chain effects. ▪ I enjoyed the (interview) process, which kept my interested in the topics. ▪ You can/should go straight to 1-7 rank-order rather than taking 2-step approach. ▪ When interviewing customers, you may need to limit the time, say 30-40 minutes.				ToT: 60 min																																																																												

ID	P-2	Interviewee	MH	Date	09-Oct-2008	Time																																																																					
Ph-1	[Response] Yes [Comment] I believe the link exists but there is also a gap between supplier's perception and customer's perception about the level of loyalty. We (supplier) tend to overestimate customer loyalty...					7 min																																																																					
Ph-2	■ No: 10,18 ■ Y/N: 1, 7, 19, 21, 23, 24, 28, 29, 30 ■ Yes: 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 17, 20, 22, 25, 26, 27, 31					15 min																																																																					
Ph-3	■ 32: Supplier's financial stability — Customer wants to be sure its continued service. ■ 33: Technological dev. — This impacts the industry (e.g. Post → Fax → email) ■ 34: Supplier's organisational culture — The way we do affects customer perception.					8 min																																																																					
Ph-4		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>0</td><td>0.5</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>10</td><td>1</td><td>14</td><td>6</td><td>8</td><td>4</td><td>2</td></tr> <tr><td>18</td><td>7</td><td>25</td><td>15</td><td>P2-32</td><td>5</td><td>3</td></tr> <tr><td></td><td>19</td><td>P2-33</td><td>17</td><td>P2-34</td><td>9</td><td>12</td></tr> <tr><td>21</td><td></td><td>26</td><td></td><td>10</td><td>13</td><td></td></tr> <tr><td>23</td><td></td><td>27</td><td></td><td>11</td><td>22</td><td></td></tr> <tr><td>24</td><td></td><td></td><td></td><td>20</td><td></td><td></td></tr> <tr><td>28</td><td></td><td></td><td></td><td>31</td><td></td><td></td></tr> <tr><td>29</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	0	0.5	1	2	3	4	5	10	1	14	6	8	4	2	18	7	25	15	P2-32	5	3		19	P2-33	17	P2-34	9	12	21		26		10	13		23		27		11	22		24				20			28				31			29							30									12 min
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Ph-5	■ 2: This is the key decision criterion, satisfying customer's fundamental needs. ■ 3: It is closely related with [12] and, I think, is more important than [4]. ■ 12: We can't perform [2] always at the highest level but [12] compensates issues. ■ 13: Our attitude and behaviour of 'putting customer first' influence customer perception. ■ 22: MNC's supply chain is complex, therefore changing supplier is not easy.					8 min																																																																					
Ph-6	Post-M&A integration period					2 min																																																																					
Ph-7	[Response] 17 (2 → 3), 18 (0 → 3), 19 (0.5 → 3) [Comment] The above factors became more visible during the integration.					8 min																																																																					
Ph-8		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>0</td><td>0.5</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>10</td><td>1</td><td>14</td><td>6</td><td>8</td><td>4</td><td>2</td></tr> <tr><td></td><td>7</td><td>25</td><td>15</td><td>17</td><td>5</td><td>3</td></tr> <tr><td>21</td><td>P2-33</td><td>26</td><td>18</td><td>9</td><td>12</td><td></td></tr> <tr><td>23</td><td></td><td>27</td><td>19</td><td>10</td><td>13</td><td></td></tr> <tr><td>24</td><td></td><td></td><td>P2-32</td><td>11</td><td>22</td><td></td></tr> <tr><td>28</td><td></td><td></td><td>P2-34</td><td>20</td><td></td><td></td></tr> <tr><td>29</td><td></td><td></td><td></td><td>31</td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	0	0.5	1	2	3	4	5	10	1	14	6	8	4	2		7	25	15	17	5	3	21	P2-33	26	18	9	12		23		27	19	10	13		24			P2-32	11	22		28			P2-34	20			29				31			30																
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Ph-9	■ 2 (-1): OPS performance dropped due to platform changes and cost focus. ■ 12 (-2): There was a big skill gap between X1 & X3, which is also related to diff. in [34] ■ 13 (-2): Too many projects to manage... we focused on internal issues, not customer. ■ 5 (-2): Colleagues left, leaders changed, org culture changed and people de-motivated. ■ 9 (-1): This was affected by [12]. ■ 11 (+1): We, at least, promoted that we could cover customer's all the logistics needs. ■ 31 (-1): Customer perceived that X2&X3 became X1 would lead to price increase. ■ 17 (-1): Customer questioned about mixing low-end (X3) and high-end (X1) services. ■ 18 (-1): Many left the company or changed positions. ■ 19 (+2): We became able to offer more and broader services compared to rivals. ■ 32 (+1): Acquired by cash-rich Company-Y, we became bigger and more stable. ■ 34 (-2): We were forced to change the way we do, which affected customer negatively. ■ 14 (-1): We received more complaints than before, handling speed was an issue. ■ 7 (-1): Due to our internal focus, customer communication was not prioritized.			20 min																																																																							
Ph-10	■ Customer type should be clarified, MNC or SME. ■ Definition of the variables should be clarified — 5: satisfied "frontline" employee, 23: involvement of customer DMU, 24: competitive attack rather than intensity. ■ Definition of "customer" to be clarified — Customer DMU e.g. Logistics director/mgr. ■ To save time, Ph-2 and Ph-4 can be merged, rank order the cards directly. ■ Especially enjoyed the rank-order part and I didn't realize that I spent >1h...				ToT: 80 min																																																																						

### **3. Revised Pilot Interview Design**

Considering the feedback received during the pilot study part-1, the pilot interview was re-structured as follows to make it more effective and efficient:

#### **Phase-1: Verification of the conceptual model**

- Question: Do you agree with the conceptual model?
- Materials: The conceptual model with the statement and key factor definitions
- Expected response: Yes (validated) or No (another question: what is wrong?)

#### **Phase-2: Rank order of the variables**

- Question: Do you think the variable (card) affects Relationship Quality and/or Customer Loyalty in business as usual situation (B-A-U)? Can you please rank order the variable one by one?
- Materials: Q-sorting cards and template
- Expected response: Rank order of the variables (1: negligible to 7: important)

#### **Phase-3: Identification of missing variables**

- Question: Are there any missing variables that affect Relationship Quality and/or Customer Loyalty in B-A-U?
- Materials: Q-sorting cards
- Expected response: Yes (specify the variable, add as a new card and rank order it) or No

#### **Phase-4: Explanation (Why)**

- Question: Why do you think these variables affect Relationship Quality and/or Customer Loyalty in B-A-U?
- Materials: Q-sorting cards (max 5) in the template (importance 5-7)
- Expected response: Open-ended explanation of why

#### **Phase-5: M&A time dimension**

- Question: From your experience, which stage of Company-X M&As had a strong impact on Relationship Quality and/or Customer Loyalty --- 1) Pre-M&A (00-01), 2) Announcement (02) or 3) Post-M&A Integration (03-05)?
- Expected response: 1), 2) or 3)

#### **Phase-6: Variables in B-A-U and M&A**

- Question: Are there any differences in the rank order of the variables (in Ph-4) between the M&A period and B-A-U?
- Materials: Q-sorting cards and template
- Expected response: Yes (select the ones and change the orders), No

#### **Phase-7: M&A impact rating and How**

- Question: Which variables were impacted by Company-X integration and How?
- Materials: Q-sorting cards (how: max 5) and template (how: importance 5-7)
- Expected response: Very positively (+2) to very negatively impacted (-2) and open-ended explanation of how

#### **Phase-8: Feedback**

- Question: Can I have your feedback on this interview (room for improvement)?
- Expected response: Open-ended

#### 4. Pilot Interview (Part-2)

ID	P-3	Interviewee	MP	Date	13-Oct-2008	Time																																																																
Ph-1	[Response] Yes [Comment] It makes sense that supplier's activities along with external factors affect relation strength and loyalty, which impact on business performance...					10 min																																																																
Ph-2	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>s1</td><td>s2</td><td>s3</td><td>s4</td><td colspan="2">s5</td><td>s6</td><td>s7</td></tr> <tr><td>29</td><td>5</td><td>6</td><td>1</td><td>20</td><td>9</td><td>4</td><td></td></tr> <tr><td>17</td><td>16</td><td>2</td><td>22</td><td>11</td><td></td><td></td><td></td></tr> <tr><td>19</td><td>18</td><td>3</td><td>23</td><td>12</td><td></td><td></td><td></td></tr> <tr><td>21</td><td>27</td><td>7</td><td>26</td><td>14</td><td></td><td></td><td></td></tr> <tr><td>24</td><td></td><td>8</td><td>28</td><td>15</td><td></td><td></td><td></td></tr> <tr><td>25</td><td></td><td>10</td><td>31</td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td>13</td><td>P3-32</td><td></td><td></td><td></td><td></td></tr> </table>	s1	s2	s3	s4	s5		s6	s7	29	5	6	1	20	9	4		17	16	2	22	11				19	18	3	23	12				21	27	7	26	14				24		8	28	15				25		10	31					30		13	P3-32					10 min	Ph-3	32: Supplier's technological (e-com) capability vs. competition — Tools/systems for e-commerce are vital to meet customer needs.	3 min	
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Ph-4	<ul style="list-style-type: none"> <li>▪ 4: This reflects today's business environment. Customers have been becoming more and more cost sensitive/driven and are even willing to sacrifice quality to get cost low.</li> <li>▪ 9: Customers always try to get best deals but their perception of supplier performance / quality is largely influenced by quality of sales people.</li> <li>▪ 11: By clearly demonstrating our commitment to the customer, we can influence their decision making ... related to [14].</li> <li>▪ 12: Customer perception of company-level capability is actually influenced by salespeople-level capability ... related to [9].</li> <li>▪ 14: When something goes wrong, the way we handle the situation differentiates ourselves over the competition ... related to [9] and [12].</li> <li>▪ 15: Customer needs to be taken care and feels valued to continue business.</li> </ul>					12 min																																																																
Ph-5	Post-M&A integration period is critical, although M&A announcement affects customer's feeling in some way.					3 min																																																																
Ph-6	[Response] 2 (5 → 6), 7 (5 → 6), 18 (4 → 5) [Comment] The above factors became more important during the integration.					3 min																																																																
Ph-7	<p>[Response]</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>s1</td><td>s2</td><td>s3</td><td>s4</td><td colspan="2">s5</td><td>s6</td><td>s7</td></tr> <tr><td>29</td><td>5</td><td>6</td><td>1</td><td>22</td><td>2</td><td>4</td><td></td></tr> <tr><td>17</td><td>16</td><td>3</td><td>23</td><td>7</td><td>11</td><td></td><td></td></tr> <tr><td>19</td><td>27</td><td>8</td><td>26</td><td>9</td><td></td><td></td><td></td></tr> <tr><td>21</td><td></td><td>10</td><td>28</td><td>12</td><td></td><td></td><td></td></tr> <tr><td>24</td><td></td><td>13</td><td>31</td><td>14</td><td></td><td></td><td></td></tr> <tr><td>25</td><td></td><td>18</td><td>P3-32</td><td>15</td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td>20</td><td></td><td></td><td></td><td></td><td></td></tr> </table> <p>[Comment]</p> <ul style="list-style-type: none"> <li>▪ 4 (+1): Customers became able to select services that fit to their cost-cutting needs from extended portfolio of services (we raised our price in some areas, though).</li> <li>▪ 11 (-1): Changes of Company-X employees, decline in service-level, increase of price ... all affected customer perception negatively.</li> <li>▪ 9 (-1): Major changes in sales process and salespeople made customer uncomfortable.</li> <li>▪ 15 (-1): We focused on standardization at that time thus we offered less customization even to the most important customers.</li> <li>▪ 32 (-1): Increased complexity by M&amp;A made us difficult to offer good e-com solutions.</li> <li>▪ 13 (-1): Too many internal changes made it hard for us to care customers.</li> <li>▪ 20 (-1): The situation — high employee turnover, internal focus and limited customization — forced us to be very passive toward customers.</li> <li>▪ 16 (+1): We became able to offer more channel options to customers.</li> <li>▪ 5 (-1): This affected and was affected by [2], [9], [12] and [14]...</li> <li>▪ 17 (+1): The market (customer/competitor) felt it positively like enhanced capability, although we internally felt it rather negatively with a doubt of joining party's capability.</li> <li>▪ 19 (+2): Although it wasn't one-stop-shopping, we became able to offer many options.</li> <li>▪ 24 (+1): Many customers accepted offers from competition that always attacks us when something wrong happens.</li> </ul>	s1	s2	s3	s4	s5		s6	s7	29	5	6	1	22	2	4		17	16	3	23	7	11			19	27	8	26	9				21		10	28	12				24		13	31	14				25		18	P3-32	15				30		20										19 min
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Ph-8	<ul style="list-style-type: none"> <li>▪ More detailed introduction needed for each session.</li> <li>▪ Definition of the variables should be clarified — 23: involvement of customer DMU for supplier/solution selection.</li> <li>▪ It is important to clearly explain the expected next step after the interview (i.e. academic contribution, not commercial actions).</li> </ul>					ToT: 60 min																																																																

ID	P-4	Interviewee	GS	Date	14-Oct-2008	Time																																																															
Ph-1	[Response] Yes [Comment] It's a good summary. These factors are critical especially in the service industry --- e.g. I see strong link between trust/commitment and customer satisfaction, and loyalty customer defending our position in their organisation.					12 min																																																															
Ph-2	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>s1</td><td>s2</td><td>s3</td><td>s4</td><td>s5</td><td>s6</td><td>s7</td></tr> <tr><td>29</td><td>21</td><td>5</td><td>6</td><td>1</td><td>2</td><td></td></tr> <tr><td></td><td>30</td><td>10</td><td>8</td><td>3</td><td>7</td><td></td></tr> <tr><td></td><td></td><td>17</td><td>20</td><td>4</td><td>9</td><td></td></tr> <tr><td></td><td></td><td>19</td><td>24</td><td>12</td><td>11</td><td></td></tr> <tr><td></td><td></td><td>22</td><td>31</td><td>14</td><td>13</td><td></td></tr> <tr><td></td><td></td><td>25</td><td></td><td>15</td><td>16</td><td></td></tr> <tr><td></td><td></td><td>26</td><td></td><td>23</td><td>18</td><td></td></tr> <tr><td></td><td></td><td>27</td><td></td><td>28</td><td></td><td></td></tr> </table>	s1	s2	s3	s4	s5	s6	s7	29	21	5	6	1	2			30	10	8	3	7				17	20	4	9				19	24	12	11				22	31	14	13				25		15	16				26		23	18				27		28			10 min	Ph-3	None --- key elements are well represented by the cards.	2 min	
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Ph-4	<ul style="list-style-type: none"> <li>▪ 2: This is all about our performance.</li> <li>▪ 7: Precise info-sharing is key to prevent attacks from competitors who always try to use our bad news to damage our customer relationship.</li> <li>▪ 9: Intense understanding of each other as well as empowerment is the key.</li> <li>▪ 11: If we don't commit to customer, we can't get their commitment.</li> <li>▪ 13: It is vital to put customers first to make them satisfied.</li> <li>▪ 16: Customer contact matrix (+ cross-channel alignment) is critical to run the business.</li> <li>▪ 18: When people leave, we lose their customer knowledge, which impacts our business.</li> </ul>					10 min																																																															
Ph-5	Post-M&A integration, especially salesforce integration was the key because, end of the day, we didn't really integrate other customer facing functions such as customer service and operations. I think the management thought we're in commodity business and thus customer relationship was not such important (which was/is not the case, though). The M&A announcement indeed promoted customer speculations, especially which brand (company) to acquire, but no tangible reactions were observed.					6 min																																																															
Ph-6	[Response] No [Comment] Customer didn't change, we changed.					1 min																																																															
Ph-7	[Response] <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>s1</td><td>s2</td><td>s3</td><td>s4</td><td>s5</td><td>s6</td><td>s7</td></tr> <tr><td>29</td><td>21</td><td>5</td><td>6</td><td>1</td><td>2</td><td></td></tr> <tr><td></td><td>30</td><td>10</td><td>8</td><td>3</td><td>7</td><td></td></tr> <tr><td></td><td></td><td>17</td><td>20</td><td>4</td><td>9</td><td></td></tr> <tr><td></td><td></td><td>19</td><td>24</td><td>12</td><td>11</td><td></td></tr> <tr><td></td><td></td><td>22</td><td>31</td><td>14</td><td>13</td><td></td></tr> <tr><td></td><td></td><td>25</td><td></td><td>15</td><td>16</td><td></td></tr> <tr><td></td><td></td><td>26</td><td></td><td>23</td><td>18</td><td></td></tr> <tr><td></td><td></td><td>27</td><td></td><td>28</td><td></td><td></td></tr> </table> [Comment] <ul style="list-style-type: none"> <li>▪ 7 (-1): We could have done this better. We were so internally focused that customers lost sight of our activities.</li> <li>▪ 9 (-2): Linking to [11] and affected by [18].</li> <li>▪ 11 (-2): Affected by [18], by losing key people, it was not possible to demonstrate this.</li> <li>▪ 13 (-1): We were too busy for internal issues and could not prioritize customer issues at that time. Several years after the integration, we can now say that we are putting customer first.</li> <li>▪ 16 (-1): New business functions, services, procedures... customer lost sight.</li> <li>▪ 18 (-2): This affected every touch point with customer very negatively. What we did was to standardize our process toward customer without taking personal relationships and/or customer knowledge the "redundant" people had used to have.</li> <li>▪ 14 (-1): People at that time felt less confident due to uncertainty, which made it difficult to handle this well.</li> <li>▪ 6 (-1): Affected by [18].</li> <li>▪ 5 (-1): People were de-motivated due to the issues above, which negatively impacted personal relationship with customer.</li> </ul>	s1	s2	s3	s4	s5	s6	s7	29	21	5	6	1	2			30	10	8	3	7				17	20	4	9				19	24	12	11				22	31	14	13				25		15	16				26		23	18				27		28							19 min
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Ph-8	<ul style="list-style-type: none"> <li>▪ The model well represents the business we are in.</li> <li>▪ The rank-order exercise was good, helped me to explore my thoughts.</li> <li>▪ Definition [1] should be "communicated service feature" rather than expectation.</li> </ul>					ToT: 60 min																																																															

ID	P-5	Interviewee	JP	Date	15-Oct-2008	Time																																																																																										
Ph-1	[Response] Yes [Comment] In principle, I agree with the model (Customer commitment can't be separated from supplier commitment, though).					8 min																																																																																										
Ph-2	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>s1</td><td>s2</td><td>s3</td><td>s4</td><td>s5</td><td>s6</td><td>s7</td></tr> <tr><td>30</td><td>1</td><td></td><td>21</td><td>3</td><td>7</td><td>2</td></tr> <tr><td></td><td></td><td></td><td>25</td><td>5</td><td>9</td><td>4</td></tr> <tr><td></td><td></td><td></td><td></td><td>8</td><td>15</td><td>6</td></tr> <tr><td></td><td></td><td></td><td></td><td>10</td><td>16</td><td>12</td></tr> <tr><td></td><td></td><td></td><td></td><td>11</td><td>17</td><td>14</td></tr> <tr><td></td><td></td><td></td><td></td><td>13</td><td>22</td><td>19</td></tr> <tr><td></td><td></td><td></td><td></td><td>18</td><td>26</td><td>20</td></tr> <tr><td></td><td></td><td></td><td></td><td>23</td><td>28</td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>24</td><td>29</td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>27</td><td>P5-32</td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>31</td><td></td><td></td></tr> </table>	s1	s2	s3	s4	s5	s6	s7	30	1		21	3	7	2				25	5	9	4					8	15	6					10	16	12					11	17	14					13	22	19					18	26	20					23	28						24	29						27	P5-32						31			18 min	Ph-3	32: Supplier's senior management involvement and executive sponsorship program --- can be part of [10] and [15].	2 min							
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Ph-4	<ul style="list-style-type: none"> <li>▪ 2: This has a financial impact on our customers, enabling/disabling them to properly serve their customers.</li> <li>▪ 4: Has significant impact together with other factors (2, 6, 12, 14, 19 and 20). When these factors are significantly better than the competition, this becomes less important.</li> <li>▪ 6: One of the CSFs to gain (good) long-term customer relationship, changing our process to meet customer needs.</li> <li>▪ 12: This is key (for Sales, Customer Service and OPS people) to meet customer expectations by translating their need and providing right solutions, linking to [19].</li> <li>▪ 14: This affects customers' customers. When we handle this well, customers tend to forget bad experience and become loyal...</li> <li>▪ 19: This has a significant impact. By broadening service portfolio, we can offer (one-stop-shopping) solutions to meet customer needs.</li> <li>▪ 20: Our initiatives are highly appreciated by customers. To gain long-term customer loyalty, we've got to be proactive, not only reactive.</li> </ul>				8 min																																																																																											
Ph-5	Post-M&A integration definitely had (negative) impact on day-to-day business, while customer speculations around M&A accouchement had no direct impact. However, it might have affected customer's strategic perception.					4 min																																																																																										
Ph-6	[Response] 9 (6 → 7), 17 (6 → 5) [Comment] There were kind of "fear" or "question mark" from customers during the integration. They wanted to make sure about key factors (in the rank 5, 6 and 7) ... all the factors even moved from 5-7 to 6-8.					6 min																																																																																										
Ph-7	<p>[Response]</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>s1</td><td>s2</td><td>s3</td><td>s4</td><td>s5</td><td>s6</td><td>s7</td></tr> <tr><td>30</td><td>1</td><td></td><td>21</td><td>3</td><td>7</td><td>2</td></tr> <tr><td></td><td></td><td></td><td>25</td><td>5</td><td>15</td><td>4</td></tr> <tr><td></td><td></td><td></td><td></td><td>8</td><td>16</td><td>6</td></tr> <tr><td></td><td></td><td></td><td></td><td>10</td><td>22</td><td>9</td></tr> <tr><td></td><td></td><td></td><td></td><td>11</td><td>26</td><td>12</td></tr> <tr><td></td><td></td><td></td><td></td><td>13</td><td>28</td><td>14</td></tr> <tr><td></td><td></td><td></td><td></td><td>17</td><td>29</td><td>19</td></tr> <tr><td></td><td></td><td></td><td></td><td>18</td><td>P5-32</td><td>20</td></tr> <tr><td></td><td></td><td></td><td></td><td>23</td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>24</td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>27</td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>31</td><td></td><td></td></tr> </table> <p>[Comment]</p> <ul style="list-style-type: none"> <li>▪ 6 (-1): We needed to respect a network driven guideline, thus became less flexible.</li> <li>▪ 9 (-2): We didn't know who would be our boss and what we really should do, thus we focused ourselves, linking to [5].</li> <li>▪ 14 (-1): The process was mixed up, customers were confused (e.g. contacting wrong person) and it took longer time to solve problems.</li> <li>▪ 7 (+1/-1): Positive side was that we could provide STD official info regularly but negative side was we over promised especially delivery timeframe (e.g. one-stop-shopping).</li> <li>▪ 15 (+1): Important customer of 1D became that of 3D or even 5D.</li> <li>▪ 29 (+1/-1): It was positive for large customers who got more attention than ever but negative for small customers who almost lost our attention.</li> <li>▪ 5 (-1): People who could not adapt to the new Company-X process were not happy.</li> <li>▪ 13 (-1): It became lower than it used to be, affected by [9].</li> <li>▪ 24 (-1): Competitors tried to use this opportunity to steal our customers, not by price and service but by confusing customers with (wrong) information.</li> <li>▪ 21 (+1): The merger (consolidation) made customer's option small.</li> </ul>	s1	s2	s3	s4	s5	s6	s7	30	1		21	3	7	2				25	5	15	4					8	16	6					10	22	9					11	26	12					13	28	14					17	29	19					18	P5-32	20					23							24							27							31						14 min
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Ph-8	<ul style="list-style-type: none"> <li>▪ Comparison of Company-X people's score and customer's score can be interesting.</li> <li>▪ It's a good idea to group cards by subject to make rank-order efficient and consistent.</li> </ul>				ToT: 60 min																																																																																											

## 5. Pilot Analysis

The scoring method was changed after two pilot interviews — in Pilot 1-2 interviewees were asked to sort only the Yes cards into 1-5 rating, while in Pilot 3-5 they were asked to sort all the cards into 1-7 rating. However, it would be interesting to test the quantitative analysis method using the collected data.

First, the importance rating of the variables in business as usual situation was tested with the following formula:

Importance of a variable on relationship quality  
in a business as usual situation =  
Mean score of a variable =

$$\sum (\text{score}_p \cdot p_1 + \text{score}_p \cdot p_2 + \dots + \text{score}_p \cdot p_N) / N$$

\*score = between 1 and 7, based on the Q-sort rating

\*\*p = participant, 1, 2 ... N

\*\*\*N = the number of participants

Variables with their mean scores of 6 or higher are considered to have highly strong impact on relationship quality and/or customer loyalty in a business as usual situation, from the pilot interviewees' viewpoints. These are [2] Service performance, [4] Cost, price [9] Account mgt quality and [12] Expertise, capability.

Following variables (scores of 5 or higher) are also considered to have strong impact — [3] Customer benefits, [6] Flexibility, adaptation, [7] Communication, info-sharing, [11] Supplier commitment, [13] Customer orientation, [14] Complaint handling, [16] Multi-channel integration, [20] Supplier initiative, [22] Switching cost, [26] Supply complexity and [28] Supply importance.

Another point to note is that all the 31 variables from Project-1 were considered to have some kind of impact, if not strong, except [30] Cultural differences.

Second, the importance rating of the variables impacted by Company-X M&As (integration) was tested with the following formula:

Importance of a variable on relationship quality during the integration =  
Phase-6 x Phase-7 mean score of a variable =

$$\sum (Ph6_p \cdot p_1 \cdot Ph7_p \cdot p_1 + Ph6_p \cdot p_2 \cdot Ph7_p \cdot p_2 + \dots + Ph6_p \cdot p_N \cdot Ph7_p \cdot p_N) / N$$

Variable	P-1	P-2	P-3	P-4	P-5	Avg
1	3	2	5	6	3	3.8
2	7	7	5	7	7	6.6
3	6	7	5	6	5	5.8
4	7	6	7	6	7	6.6
5	2	6	3	4	5	4.0
6	7	4	4	5	7	5.4
7	5	2	5	7	6	5.0
8	3	5	5	5	5	4.6
9	5	6	6	7	6	6.0
10	2	1	5	4	5	3.4
11	4	6	6	7	5	5.6
12	6	7	6	6	7	6.4
13	4	7	5	7	5	5.6
14	5	3	6	6	7	5.4
15	2	4	6	6	6	4.8
16	2	6	4	7	6	5.0
17	2	4	3	4	6	3.8
18	4	1	4	7	5	4.2
19	6	2	3	4	7	4.4
20	5	6	5	5	7	5.6
21	6	2	3	3	4	3.6
22	6	7	5	4	6	5.6
23	2	2	5	6	5	4.0
24	5	2	3	5	5	4.0
25	5	3	3	4	4	3.8
26	6	4	5	4	6	5.0
27	2	4	4	4	5	3.8
28	7	2	5	6	6	5.2
29	2	2	2	2	6	2.8
30	2	2	3	3	2	2.4
31	2	6	5	5	5	4.6
P1-32	6					1.2
P2-32		5				1.0
P2-33		3				0.6
P2-34		5				1.0
P3-32			5			1.0
P5-32					6	1.2

> 6

> 5

\*Ph6 = Phase-6 score (1 - 7)

\*\*Ph7 = Phase-7 score (very negative: -2, negative: -1, neutral: 0, positive: 1, very positive: 2)

Variable	Importance Rating in M&A					M&A Impact	Importance x Impact					
	P-1	P-2	P-3	P-4	P-5		P-1	P-2	P-3	P-4	P-5	Avg
1	3	2	5	6	3	3.8	-1					-0.2
2	7	7	6	7	7	6.8	-2	-1				-0.6
3	6	7	5	6	5	5.8						0.0
4	7	6	7	6	7	6.6			1			0.2
5	2	6	3	4	5	4.0	-2	-2	-1	-1	-1	-1.4
6	7	4	4	5	7	5.4	-1			-1	-1	-0.6
7	5	2	6	7	6	5.2	-2	-1		-1		-0.8
8	3	5	5	5	5	4.6						0.0
9	5	6	6	7	7	6.2	-1	-1	-1	-2	-2	-1.4
10	2	1	5	4	5	3.4						0.0
11	4	6	7	7	5	5.8		1	-1	-2		-0.4
12	6	7	6	6	7	6.4		-2				-0.4
13	4	7	5	7	5	5.6	-2	-2	-1	-1	-1	-1.4
14	5	3	6	6	7	5.4	-1			-1	-1	-0.6
15	2	4	6	6	6	4.8			-1		1	0.0
16	2	6	4	7	6	5.0			1	-1		0.0
17	2	5	3	4	5	3.8	1	-1	1			0.2
18	4	5	5	7	5	5.2	-1	-1		-2		-0.8
19	6	5	3	4	7	5.0	2	2	2			1.2
20	5	6	5	5	7	5.6			-1			-0.2
21	6	2	3	3	4	3.6					1	0.2
22	6	7	5	4	6	5.6						0.0
23	2	2	5	6	5	4.0						0.0
24	5	2	3	5	5	4.0	-2		1		-1	-0.4
25	5	3	3	4	4	3.8						0.0
26	6	4	5	4	6	5.0						0.0
27	2	4	4	4	5	3.8						0.0
28	7	2	5	6	6	5.2						0.0
29	2	2	2	2	6	2.8						0.0
30	2	2	3	3	2	2.4						0.0
31	2	6	5	5	5	4.6	-1	-1			-0.4	
P1-32	6					1.2	-1				-0.2	
P2-32		5				1.0	1				0.2	
P2-33	3					0.6					0.0	
P2-34	5					1.0	-2				-0.4	
P3-32			5			1.0		-1			-0.2	
P5-32					6	1.2					0.0	

> 6  
> 5
> 1  
> 0.5  
< -0.5  
< -1
> 5  
> 2.5  
< -2.5  
< -5

Variables with their mean scores of -5 or lower are considered to have had highly negative impact on relationship quality and/or customer loyalty during the post M&A integration period, from the pilot interviewees' viewpoints. These are [5] Satisfied employees, [9] Account mgt quality and [13] Customer orientation.

Following variables (scores of -2.5 or lower) are also considered to have had negative impact — [2] Service performance, [6] Flexibility, adaptation, [7] Communication, info-sharing, [11] Supplier commitment, [12] Expertise, capability, [14] Complaint handling and [18] Employee turnover.

[19] Product/service breadth is the only variable considered to have had highly positive impact during the integration period.

## **6. Key Learning points from the Pilot**

Here is a summary of learning points from the pilot interviews and data analysis, which will be reflected in the revised Project-2 protocol.

### **[Interview] -----**

#### **Overall**

- Average time (pilot): 60 min, including introduction but excluding feedback
- The pilot interviewees liked the interview topics and structure/process, especially the rank-order exercise.
- Definitions of some variables need to be further clarified.
- It may be required to explain the expected outcome after the series of interviews.
- On average, only 40% of the interview time was spent for the M&A related topics.
- When interviewing customers:
  - It is mandatory to complete the interview within 60 min (ideally 30 – 40 min),
  - It may take much more time for the generic introduction,
  - It is hard to control time, especially when a customer is talking.
- Therefore, the structure of the interview should be simplified by deleting some of the questions/topics.

#### **Phase-1: Verification of the conceptual model**

- Average time (pilot): 10 min including introduction
- This part, verification of the model, can be skipped. Instead, the model can be shared with an interviewee as part of a generic introduction (the research objectives and findings so far). it was decided to do so due to the fact that 1) the model is academically grounded and was fully supported by the pilot interviewees, 2) it is very hard to move on to the next topic once an interviewee starts a long talk about the model linking to his experiences 3) this is not the critical part of Project-2.

#### **Phase-2: Rank order of the variables**

- Average time (pilot): 12.7 min
- The 1-step approach (directly sorting the cards into 1-7 rating) looks better than the original 2-step approach proposed by Van Exel and De Graaf (2005), in terms of efficiency (50% less time needed).
- A question was raised during the research panel review on 26-Sep-2008 regarding psychological difficulties in sorting more than 30 Q-cards. However, Van Exel and De Graaf (2005, P7) argue “nowadays most Q set contain 40 to 50 statements” and Donner (2001, P27) claims “There is no clear rule of thumb for the number of elements that should be included, but sorts with as few as 20 or as many as 60 items are possible”. Furthermore, observations of the pilot interviewees show that they could handle it in 10 – 15 minutes without problem maybe because the topic is closely related to their day-to-day tasks.

#### **Phase-3: Identification of missing variables**

- Average time (pilot): 2.3 min
- Keep this as it is.

#### **Phase-4: Explanation (Why)**

- Average time (pilot): 10 min

- The participants were asked to explain why they selected the variables in rank 7 or 6, up to 5 variables in order to focus only on most important variables. This was an interesting exercise to make participants explore further and as a result make the interview data richer. However, considering the Project-2 research objective (M&A impact study) and time constraints, it was decided to take this part out from the interview topics.

#### **Phase-5: M&A time dimension**

- Average time (pilot): 4.3 min
- 5 out of 5 interviewees immediately responded that the post-M&A integration was the key, which supports the original idea of conducting M&A impact study focusing on the integration period. Therefore, to slim down the interview topics, it was decided to discard this question.

#### **Phase-6: Variables in B-A-U and M&A**

- Average time (pilot): 3.3 min
- The comment from Pilot-4 “Customer didn’t change, we changed” reflects the original thought, however, since 3 out of 5 respondents argue that the importance of the variables are different (between B-A-U and M&A), it was decided to keep this question in.

#### **Phase-7: M&A impact rating and How**

- Average time (pilot): 17.3 min
- This is the highlight of the interview. By asking “which variables ... and how?”, it is designed to make interviewees recall the events and impacts vividly. This part can come only at the end of the interview and thus there is a risk of an interviewee leaving due to time constraints (e.g. next appointment). It is important to make sure that at least 20 minutes of discussion time is secured toward the end.

#### **[Data analysis] -----**

- The pilot result seems to be reasonable considering arguments in the practitioner articles, such as the McKinsey Quarterly.
- Statistics techniques can possibly be applied to the quantitative data analysis once meaningful number of data sets is collected.
- The combination of the quantitative data (the importance score x M&A impact) and the qualitative data (i.e. why and how) can possibly provide new insights and implications to the M&A study field.

## Appendix D: Pilot Study (v2)

### **1. Potential Limitations of Q-Sorting**

Aside from already mentioned criticisms about the method, ‘forced distribution’ and ‘pre-designed Q-set’ (Watts and Stenner, 2005), another criticism was found. That is about its reliability or more precisely replicability — whether similar results can be obtained from different research sets (Van Exel and De Graaf, 2005). This criticism would be predominantly due to its use of ‘rank order’, which was also challenged during the research panel review on 24<sup>th</sup> Oct 2008. Since the rank order is based on comparison of the variables (31+ Q-cards in this study) instead of absolute rating of each, there may be no guarantee that the interviewees select the same (or at least similar) set of variables as important IF a different Q-sorting process / template or indeed different set of Q-cards was provided.

### **2. Focused Pilot v2**

To test the above potential reliability/replicability issue of the data collection method (adjusted Q-sorting), the additional pilot study (pilot v2) with the previous pilot participants was conducted.

#### ***1) Method***

The following three tests were conducted with the first two interviewees in the v1 pilot study (pilot-1 CP and pilot-2 MH):

- **Test-1:** Change the Q-sorting process and template (OLD: screening of all the cards followed by sorting of the cards in only ‘Yes’ category into 1-5 rating, NEW: direct sorting of all the cards into 1-7 rating). Then ask the participants to re-do the rank-ordering focusing on the post-M&A integration period. This is to test whether the participants select similar set of variables as important as they did before in the Pilot v1.
- **Test-2:** Using the Q-sort from Test-1, randomly take some Q-cards out and ask the participants whether this affects their rank order.
- **Test-3:** Using the Q-sort from Test-1, randomly change rating of some Q-cards (e.g. move Card-3 from [6] to [1]) and ask the participants whether this affects their rank order.

#### ***2) Result***

### Interview with Pilot-1 (CP) on 28-Oct-2008

Pilot-1, v1

s0	s0.5	s1	s2	s3	s4	s5
	5	1	11	7	3	2
	10	8	13	9	12	4
	15		18	14	19	6
	16			20	21	28
	17			24	22	
	23			25	26	
	27					P1-32
	29					
	30					
	31					

Pilot-1, v2

s1	s2	s3	s4	s5	s6	s7
	17	1	11	7	3	2
	27	5	13	9	12	4
	29	8	18	14	19	6
	30	10		19	21	26
		15		20	22	28
		16		24	24	
		23		25	P1-32	
		31				

#### [Test-1]

- Most important (s5 in Pilot v1 vs. s7 in Pilot v2)
  - 4 variables in v1 but 5 variables in v2
  - 4 variables matched
  - 1 variable (26: Supply complexity) moved in but no variable moved out
- Very important (s4-5 in Pilot v1 vs. s6-7 in Pilot v2)
  - 11 variables in v1 but 12 variables in v2
  - 11 variables matched
  - 1 variable (24: Competitive intensity) moved in but no variable moved out
- Important (s3-5 in Pilot v1 vs. s5-7 in Pilot v2)
  - 17 variables in both v1 and v2
  - All the 17 variables matched
  - No variable moved in/out

#### [Test-2]

No impact was observed.

#### [Test-3]

No impact was observed, except the following variables — 21: Acceptable alternatives and 22: Switching cost. According to the interviewee, these two are related each other and hence if [21] is changed its rating, [22] should follow.

### **Interview with Pilot-2 (MH) on 29-Oct-2008**

**Pilot-1, v1**

s0	s0.5	s1	s2	s3	s4	s5
10	1	14	6	8	4	2
	21	25	15	17	5	3
	23	P2-33	26	18	9	7
	24		27	19	10	12
	28			P2-32	11	13
	29			P2-34	20	22
	30				31	

**Pilot-1, v2**

s1	s2	s3	s4	s5	s6	s7
	15	1	6	18	3	2
	16	23	14	19	4	7
	29	26	21	27	5	9
	P2-33	24	P2-32	8	12	
			25		10	13
			28		11	
					17	
					20	
					22	
					30	
					31	
					P2-34	

#### **[Test-1]**

- Most important (s5 in Pilot v1 vs. s7 in Pilot v2)
  - 6 variables in v1 but 5 variables in v2
  - 4 variables matched
  - 1 variable (9: Account mgt quality) moved in and 2 variables (3: Customer benefits, 22: Switching cost) moved out
- Very important (s4-5 in Pilot v1 vs. s6-7 in Pilot v2)
  - 13 variables in v1 but 17 variables in v2
  - 13 variables matched
  - 4 variable (8: Fairness, 17: Supplier reputation, 30: Cultural differences, 34: Org. culture) moved in but no variable moved out
- Important (s3-5 in Pilot v1 vs. s5-7 in Pilot v2)
  - 19 variables in v1 but 21 variables in v2
  - 19 variables matched
  - 2 variable (27: Relationship length, 30: Cultural differences) moved in but no variable moved out

#### **[Test-2]**

No impact was observed.

#### **[Test-3]**

No impact was observed, except the following variables:

- Group-1 — 9: Account mgt quality, 12: Expertise, 13: Customer orientation
- Group-2 — 10: Bonding, 22: Switching cost, 31: Psychological contract
- Group-3 — 11: Supplier commitment, 20: Supplier initiative
- Group-4 — 5: Satisfied employees, 34: Org. culture

According to the interviewee, variables in each group are related each other and hence if one of them is changed its rating, the rest should follow.

### **3. Conclusion of the Pilot v2**

Even though the number of participants for this Pilot v2 is very limited due to an availability issue (which was agreed/accepted by the research panel on 24<sup>th</sup> Oct 2008), the planned data collection method has been proved to be reliable/replicable.

Test-1 result clearly indicates that even when Q-sorting process and template is changed, interviewees select similar set of variables as important.

Test-2 result demonstrates that the rating of each variable would not be changed even when different set of Q-cards is employed.

Test-3 result shows that the rating of each variable is immune to manipulations as long as related variable(s) is not manipulated.

The favourable results to the data collection method would be attributed to the research topic and interview questions. Since those are strongly related to the interviewees' day-to-day business issues, they may be able to provide consistent views on the variables.

## Appendix E: Interview Guide

### Phase-1: Introduction

- Introduction: My research topic, interview objective and sharing of the literature-based conceptual mode in a ‘business as usual’ situation (B-A-U).
- Materials: The high-level conceptual model
- Expected response: **Agreement** on the model (not mandatory)

----- (KAMs are requested to represent their key customers' views for Ph2-5) -----

### Phase-2: Rank order of the variables

- Question: Which of the following variables do you think affect relationship quality and customer loyalty most in the logistics industry, in B-A-U? Can you please rank order the variable one by one?
- Materials: 31 Q-cards and Q-template
- Expected response: **Rank order** of the variables (1: negligible to 7: most important)

### Phase-3: Identification of missing variables

- Question: Are there any missing variables that affect relationship quality and/or customer loyalty in B-A-U?
- Materials: 31 Q-cards & Q-template (completed in Ph-2) + new Q-cards
- Expected response: **YES** (specify the variable, add as a new card and **rank order** it) or **NO**

### Phase-4: Difference in the variables rank-order, B-A-U vs. M&A

- Question: Are there any differences in the rank order of the variables in B-A-U (Ph-3) and Company-X M&As (integration) period, and Why?
- Materials: 31+ Q-cards & Q-template (completed in Ph-3)
- Expected response-1: **YES** (select the ones and change the **rank order**) or **NO**
- Expected response-2: Open-ended explanation of **WHY**

### Phase-5: M&A impact rating and Why/How

- Question: Which variables were impacted by Company-X M&As (integration, 2003-2005) and Why/How?
- Materials: 31+ Q-cards, Q-template (adjusted in Ph-4) and M&A-impact-grid
- Expected response-1: Specification of the **impact** from very positive (+2) and positive (+1) to negative (-1) and very negative (-2)
- Expected response-2: Open-ended explanation of **WHY/HOW**

## Appendix F: Documentation Information

### **1. Annual Reports (Company-Y)**

#### 1997

*"In December, the new XXX Act was finally passed... That act makes XXX a pace-setter in the liberalization of Europe's XXX markets." (Company-Y, 1997: P5)*

*"Having completed most of the corporate restructuring and reorganization which began in 1990, we can now concentrate on our growth strategy." (Company-Y, 1997: P6)*

*"In respect to Company-Y's strategic positioning, internationalization is given highest priority." (Company-Y, 1997: P7)*

*"The planned acquisition of a 22.5-percent stake in Company-X1 in March 1998, is a move of strategic importance and signals that Company-Y is becoming a serious contender in the global logistics market." (Company-Y, 1997: P50)*

#### 1998

*"By acquiring the long-established Company-X3, we added a competent logistics keystone to our organization." (Company-Y, 1998: P9)*

*"As competition becomes increasingly global, only those providers will survive that reach beyond their national borders and which offer their customers a wide range of products and services ...the growing trend toward the globalization and concentration of markets." (Company-Y, 1998: P10)*

*"Our collaboration with Company-X1 gives us access to a global logistics network that currently operates in 227 countries around the world." (Company-Y, 1998: P10)*

*"The global trend on the world's logistics markets is unmistakably toward international one-stop shopping that puts the just-in-time concept into cross-border practice for customers." (Company-Y, 1998: P10)*

*"This [growth] strategy follows three concurrent, fundamental directions: Firstly, as part of our internationalization strategy we are developing new networks, especially in Europe, through selective acquisitions, participations and collaboration. Secondly, we are systematically expanding our range of products and services in the logistics field... Thirdly, we are pushing ahead with the development of our value-added services." (Company-Y, 1998: P24)*

#### 1999

*"Having set up our own companies and acquired stakes in leading service providers in Europe, we now offer our business customers integrated logistics services in currently 18 European countries under our Company-X2 brand." (Company-Y, 1999: P9)*

#### 2000

*"Together [Company-Y and Company-X1] we provide a platform for worldwide logistics services." (Company-Y, 2000: P34)*

*"...we can use the worldwide customer lists of Company-X1 for other products from our portfolio of services and vice versa." (Company-Y, 2000: P40)*

#### 2001

*"...Company-X1 will bring another million business customers." (Company-Y, 2001: P29)*

*"We will focus in particular on the restructuring and integration of Company-X1 into the Group."* (Company-Y, 2001: P40)

*"...we will eliminate existing product overlaps with Company-X1 and at the same time use Company-Y's marketing network for Company-X1 products and vice versa."* (Company-Y, 2001: P79)

## 2002

*"...the acquisition of Company-X1 will enable us to continue to globally expand the Group's position and the success of our services."* (Company-Y, 2002: P6)

*"We are fully integrating the Group's logistics activities under the umbrella of the global Company-X1 brand: both operationally... and organizationally... This means we have fulfilled the most important condition for becoming the leading global provider of logistics services."* (Company-Y, 2002: P14)

## **2. Management Presentation (IR Publication and Internal)**

### Apr-2002

The management described the following key market trends, based on which Company-Y set its aggressive growth/expansion strategy (Company-Y, Apr-2002):

- **Globalisation** that requires global coverage and integrated worldwide organisation, therefore Company-Y is to pursue market leadership in relevant markets and enhance European and global network.
- **Outsourcing** that requires ability to integrate entire supply chain and different kinds of flows with economics of scale, therefore Company-Y is to provide value added services and manage integrated goods, information and payment flows.
- **One-stop-shopping** that requires wide range of service offerings leveraging customer base, therefore Company-Y is to offer comprehensive service portfolio, seamless services and cross-divisional CRM.

After acquiring up to 46% stake in Company-X1 in 2001, Company-Y had an aspiration to acquire the rest to get full control by end of 2002. The management stated in an analyst conference as a conclusion that "*Company-X1 fits very well into overall group with substantial market synergies*" (Company-Y, Apr-2002: P35)

### Mar-2003

The group-wide post-M&A integration program was officially launched in October 2002, 2 months before finalizing complete acquisition of Company-X1. The program consisted of following 13 initiatives for 6+1 functions (Company-Y, Mar-2003):

- Marketing & Sales
  - Harmonisation of processes and tools (CRM)
  - Product portfolio harmonisation
  - Sales force and customer service integration
- Air Network
  - Air network integration (aircraft carrier organisation, Company-X1 aircraft capacity and commercial air purchasing)
- Ground Operations
  - New production system (process and system integration)
  - Air network and ground operations platform redesign
  - European carrier organization
- Finance & Accounting
  - Standards and processes (including new global billing system)

- Integration and shared service centre (tax and legal structure)
- Information System
  - Infrastructure consolidation and architecture
  - Application roadmap
- Human Resource
  - HR integration (strategy and shared services)
- Company-X Logistics
  - Logistics strategy (optimal global customers approach)

The following five key elements were described as successful integration factors: structural blueprinting, functional blueprinting, the set-up of the integration organization and processes, the performance management, and communication.

It was also stated that key integration challenges in Company-X in Europe as full business integration and on-going focus on value improvement program to avoid integration dip (Company-Y, Mar-2003).

The Head of Marketing & Sales stated customer expectations for the core logistics services as 1) speed, 2) reliability (including service guarantee and track & trace) and 3) professionalism, on the other hand, particular customer expectations for the new Company-X as a) integrated service offering, b) seamless customer touch point and c) higher discount (Company-Y, Mar-2003).

He also shared the following potential customer retention issues associated with the integration program within Company-X Europe as follows (Company-Y, Mar-2003: P17):

- *“Some customers will expect/demand integrated management before organizational migration is completed,*
- *Rules of engagement between the parties [Company-X1, Company-X3 and Company-X2] dealing with the same customers may not always be clear or understood,*
- *Competition may aim to strike when we are expected to be internally focused (or customers feel we do not have time for them),*
- *Sales people may enter into ‘competitive behaviour’ with each other because they feel they are competing for the same job, both at sales and at management level.”*

To ensure retention of key customers and employees, the retention project with the following scope was put in place in Company-X Europe 5 months after the integration program officially announced: 1) Immediate actions for businesses at risk, 2) Key Account Integration, 3) Frontline staff retention, 4) Proactive communication of integration successes stories and 5) Progress monitoring (Company-Y, Mar-2003).

The Head of Operations highlighted the major integration challenges as follows (Company-Y, Mar-2003: P5):

- *“At present we operate parallel cross-border networks and a multitude of independent domestic networks,*
- *We have different divisional processes for similar or identical services supported by a wide range of heterogeneous IT applications,*
- *Our buildings, trucks and warehouse handling equipment are diverse and mostly tailored to the needs of the individual divisions,*
- *The background of the three divisions differs strongly (integrator versus forwarder focus, international versus domestic focus).”*

#### Apr-2003

A series of mass marketing campaigns were organized (including TV and radio advertisements) to promote Company-X re-branding with the following concept: “It will combine the Group's domestic and international logistics activities under a single umbrella. The motto

One brand – one face to the customer illustrates Company-Y's systematic one stop-shopping approach." P9, (Company-Y,, 2009)

#### Nov-2003

The management presented a milestone of the integration under the theme of "Turning Vision into Reality" (Company-Y, Nov-2003):

- 2003: Prepare and launch integration program — Short-term impact initiatives, including country "quick wins", Company-X re-branding, Organisational re-design, Procurement synergies and Top-line growth program.
- 2004: Introduce integrated offering — Marketing & Sales key initiatives (the initiatives number 1 to 3)
- 2005: Establish the new platform — Key initiatives for Network & Operations, Finance/Accounting, Information System and Human Resource (the initiatives number 4 through to 12)
- 2006: Finalise the integration — Finalisation of country deployment of the defined initiatives, integration of domestic line-hauls & terminals and migration to business re-engineering mode.

#### Oct-2004

About 2 years after the official launch of the integration program, the management provided a progress update in Europe, as follows (Company-Y, Oct-2004):

- Marketing & Sales:
  - The first integrated international standard service was launched,
  - Customer service centres from different entities have been co-located,
  - Salesforce integration is well underway and a salesforce automation tool (CRM) was introduced.
- Network & Operations:
  - Harmonised operational process is being implemented,
  - New international network is being designed,
  - Domestic network blueprints are being defined,
  - Countries have consolidated terminals, where applicable,
  - Decision on future central aviation hub in Europe is imminent.
- Finance & Accounting:
  - New standard accounting system is being implemented.
  - New reporting system is being put in place.
- Information System: New IS service centre has opened in Prague.
- Human Resource: New payroll system is being put in place.

#### Nov-2004

The salesforce integration team at Company-X Europe (as part of the group-wide program) internally presented the following detailed milestone (Company-X, Nov-2004):

- Organizational blueprint development: Jan - May 2003
- European country workshop: Apr 2003
- Analysis phase: Apr - Jul 2003
- High-level country blueprint development and business case: Jul 2003
- Detailed migration planning: Aug -Sep 2003
- Development and refinement: Oct 2003 to 2004
- First sales automation tool (CRM) pilot: Jan 2004
- Country by country CRM tool deployment: Jan 2004 - Jan 2005
- Integrated Salesforce using the CRM tool: Jan 2005

The team estimated that through the integration and harmonization of the salesforce, the total cost in sales in Company-X Europe would be reduced by 17%.

#### Feb-2005

About 2 years and half after the official launch of the integration program, the management provided a progress update in Europe, as follows (Company-Y, Feb-2005):

- Marketing & Sales:
  - The new international standard service is up and running and is expected further penetration,
  - Salesforce integration has been completed and the next step is to leverage advantages of the integrated salesforce by exploiting the sales automation tool,
  - Customer service is being integrated,
  - Drop point solution has been conceptualised and is ready for roll out.
- Network & Operations:
  - Terminals are being consolidated,
  - European carrier organization is being completed,
  - Operational performance is being harmonised,
  - Domestic networks are being integrated and cross-border network synergies are expected,
  - Decision on future central aviation hub in Europe was taken.
- Finance & Accounting: Harmonisation of the financial systems is underway.
- Information System: New IS service centre in city-C is now operational.
- Human Resource: HR information system is being developed and effective people management is expected.

From Marketing & Sales side, the management described complexity of the customer service integration (Company-Y, Feb-2005) :

- Before the integration, there used to be several hundred customer service sites in Europe with various customer contact numbers per country,
- Up to now (Feb-2005), the organisation has closed 25% of the customer service sites,
- The plan is to streamline the customer service sites and create one customer contact number per country.

### Dec 2006

After forming one global organisation, the management offered his reflections on the series of M&As (Company-Y, Dec-2006):

- Company-X has been built from over 40 different companies worldwide, therefore it is difficult to compare to its peers,
- In Europe, numerous acquisitions have been carried out in almost all the countries to create home market strength — the biggest challenge has been to integrate multiple diverse business models, processes and systems in over 20 countries,
- Acquisition has been the key driver (representing over 80%) of the historic growth in Company-X (CAGR of up to 23% between 1996 and 2005), while major competitors (Rival-C and Rival-A) have largely grown organically,
- Integration issues diverted our focus from market/customer between 2002 and 2004, which depressed organic growth,
- Clear sign of recovery started in 2005, 2-3 years after completion of the M&As,
- No major acquisitions are expected over next two to three years,
- Some 2-3 years of significant restructuring and integration are still required before acceptable margins will be achieved in the more difficult areas.

### Feb-2007

At the internal global executive meeting, the management offered his honest reflections on the integration, taking Company-X France as a case study (Company-X, Feb-2007). He commented that the integration strategy was theoretical and operationally flawed and described as follows:

The starting point (pre-integration) was more complex than initially considered:

- Five different companies with varied business models and markets,
- Very different business processes and overall weak IT platforms,

- Outdated standard service infrastructure.

Major integration activities and their implications were:

- SAP project (from May 2004) failed:
  - Complete collapse of financial systems,
  - Loss of financial visibility for 9 months,
  - Large increase in bad debt.
- Network integration project (from Jan 2005) failed:
  - Inefficient mix of parcels/pallets,
  - Collapse of service quality,
  - Increase in production costs (e.g. due to temporary labour) to safeguard service performance.
- New production system project (pilot in 2006) failed:
  - Huge group-driven project totally failed,
  - 4 years and 100 million Euros wasted,
  - Almost all Track & Trace and Operations KPI's lost.
- General issues:
  - It became internally focused organization,
  - No tactical upgrading of existing weak IT systems were put in place due to the attitude of "New system would fix it",
  - Employee morale declined and union pressure surged due to repeated restructuring,
  - Revenue declined due to poor service quality.

#### May-2007

At the internal European meeting, the management stated that the huge number of companies acquired in the last ten years has led to a highly complex integration effort. He urged the employees to shift their energies from the pre-dominant "integration focus" to the "customer focus" (Company-X, May-2007).

The key message was to shift from the following integration mode:

- Enforced integration of domestic and international businesses according to the integration master plan,
- Huge investment programs to harmonize IT and network infrastructure,
- Internal focus to manage highly complex integration activities,

To pragmatic business management (business as usual):

- Performance improvement and step-by-step convergence and standardization approach with country individual roadmaps,
- Investments based on individual business plans and in line with country specific roadmaps,
- Re-focus on customers and profitability.

### **3. Analyst Report**

Concerning the post-M&A integration program: "*This is a massive task and if the service quality slips as networks are radically changed, customers may prove unforgiving.*" (Deutsche Bank, 31-Oct-2002: P1)

UBS analysts commented (UBS, 11-Nov-2002: P7-8): "*This [one-stop shop concept] primarily involves an integrated air express network with a dense ground-based operation, with a fully integrated sales and marketing function...*" and clarified the potential key challenges as follows:

- Brand dilution: "*A key risk, in our view, is that the premium service – or more importantly, the premium pricing associated with Company-X1 products – gets diluted when the service offers incorporates Company-X3, a business that we believe is barely profitable.*"

- IT consolidation: “*If an express provider gets it wrong, the service quality suffers, customers leave for the competition and operational gearing bites.*”
- Short-term loss of customers: “*The integration of networks will be challenging, and a disruption of service could result in the loss of customers in the short term.*”

“*If Company-Y's restructuring is a success, a fully integrated Company-X will be an extremely powerful and dominant player, but it will take time. Rival-A became profitable in Europe after 24 years and it took Rival-B 7 years before it made its WACC.*” (UBS, 01-Aug-2003: P1)

“*...the company is currently in restructuring mode in Europe, with the integration process now in full swing, and that the focus is therefore not on growth for the time being. ...the company was through the worst with regards to growth and that now the new sales force and new product ranges were in place, growth within the region should improve through the course of the year. Company-Y's performance needs to be contrasted with that at Rival-B, where growth in European services has been double-digit for the past four quarters. ...One of the key concerns with the integration program was that costs may come out but would revenues be lost in the process.*” (Deutsche Bank, 09-May-2005: P4)

“*Until now, the national networks have essentially been run on a stand-alone basis, with only 10-15% of business emanating from cross-border flows. The main criterion of Company-Y's restructuring programme in 2005 is to integrate these networks.*” (UBS, 24-Aug-2005: P22)

“*...we believe Company-X is currently losing market share in Europe, probably to Rival-B and Rival-A. Rival-B has grown its European revenue by an average of 10.5% since 2003 to mid-2005, compared with Company-X Europe's +4.3% y/y in FY 04 and -0.4% in the first half of 2005. ...we believe it [Rival-A] to be in excess of 10% off a lower base.*” (UBS, 24-Aug-2005: P24)

“*...we do not believe Company-X Europe can attain a margin comparable to Rival-B's. However, once the national networks have been integrated, we expect profitability to improve.*” (UBS, 24-Aug-2005: P24)

“*Company-X Europe is undergoing significant disruptions because it is currently integrating the aforementioned national networks, as well as planning to move Company-X1's traditional air hub from City-A to City-B. Under this scenario, it should not be surprising that no revenue growth was attained in the first half of 2005, nor is it surprising that management expects revenue to be static for FY 05.*” (UBS, 24-Aug-2005: P25)

“*...our strong belief is that it has been a very disappointing revenue performance that has been central to Company-Y's EBITA shortfall within Company-X in Europe. ...it is clear that underlying growth within European at Company-X has been minimal throughout the duration of the integration programme.*” (Deutsche Bank, 16-Jan-2006: P30)

“*While Company-Y may have ‘broken the back’ of its European network integration, the projects will be ongoing through 2006 and, we believe, into 2007. ...the underlying level of growth has been weaker still.*” (Deutsche Bank, 16-Jan-2006: P31)

“*Once Company-Y finalises its restructuring, the company should be able to extract optimal utilization of its key assets – transportation, warehousing and people. This should also boost Company-Y's margin relative to Rival-B.*” (Deutsche Bank, 16-Jan-2006: P32)

“*...the key positive we took away from the Q106 results was the acceleration in organic growth [6.7%] for this region. ...after a hugely disappointing 2005, we still see this as a very encouraging sign that Company-Y has turned the corner.*” (Deutsche Bank, 06-Jun-2006: P13)

*"We still have concerns over the status of the restructuring programme in Europe and whether the European business is fully integrated, given that the legacy companies bought by Company-Y to create its pan-European business have varying levels of service quality and mix."* (UBS, 11-Aug-2006: P7)

*"...Company-X in its current form is the result of a high number of acquisitions and the business has been facing a long period of tumultuous integration initiatives that have impacted every element of service and operations (product definitions, associated tariffs, sales and marketing, pick-up-and-delivery networks, line hauls, hubs, etc.). In addition, we believe that this integration process was too heavily influenced by consultants rather than those with operational experience..."* (Deutsche Bank, 15-Jan-2007: P4)

*"...the domestic operations in both France and Germany, particularly for the deferred product, have proven problematic and that these activities contributed to the EBIT shortfall."* (Deutsche Bank, 27-Mar-2007: P11)

*"...we see restructuring elsewhere within the European network as being much more minimal moving forward... we are optimistic that growth from Company-X in Europe will finally start to improve through 2007."* (Deutsche Bank, 27-Mar-2007: P12)

#### **4. Industry Journal and Newspaper Articles**

*"Expansion of Company-Y in the areas 1 to 3 can be understood as diversification of the product range (integration of traditional transport market "products") and as an attempt to build up scale and reach economies crucial to become a first tier transport supplier to customer companies pursuing single modular sourcing strategies."* (Plehwe, 1999: P27)

*"Taking control of Company-X1 would be Mr. Zumwinkel's biggest move in his campaign to turn the soon-to-be privatized Company-Y into a serious competitor in the private-delivery industry, and it would create a big new player in the global air-freight market.... While control of Company-X1 would finally give Company-Y a global delivery network, it also would thrust the agency into uncharted waters. Company-Y will be pitted head to head against Rival-C and Rival-A at a time when Company-Y already is busy trying to integrate a string of other recent acquisitions"* (Blackmon, 14-Sep-2000).

*"Company-Y is planning to restructure its international express and logistics services. Company-X1, Company-X3 and Company-X2 will all merge by 2005 and will operate under the name Company-X1... The aim of the merger is to improve efficiency and co-ordinate processes."* (Suddeutsche-Zeitung, 01-Oct-2003)

*"The yellow giant enters the airline business"* (Szandar, 2000: P4), *"Company-Y goes global with Company-X1"* (Conway, 2002: P9)

*"...Company-X1 will continue to operate as an independent company under its globally recognized brand... Since 1998, when it purchased Company-X3..., Company-Y has been on a multibillion-dollar buying spree focused on building a global one-stop shop for logistics services."* (Parker, 2000: P24)

*"The liberalisation of the European markets has been one of the driving forces behind the high level of M&A activity in the last few years. ...This has led the Dutch, German and more latterly British and French companies to embark on extensive buying campaigns..."* (Manners-Bell, Sep 2003: P41)

*"The early stages of an expansion strategy usually focus around increasing presence in the home market, and consolidating market position in a core competence. When this has been achieved, the company develops into associated competences and markets... through a range of alliances, joint ventures or focused acquisitions.... without the risks involved in a scale acquisition... This approach is usually termed 'bolt-on' acquisition. ...have a natural advantage over competitors... using the profits gained in their home market to fund the scale acquisitions."* (Manners-Bell Sep, 2003: P46)

*"Company-Y acquired international express capabilities through Company-X1, land transport and freight forwarding through Company-X3. ...total integration of all their acquired distribution, forwarding, express etc activities is not the goal of these companies. Rather they seek to have the processes and networks in place which can be used where necessary for a limited number of 'blue chip' clients with sophisticated, regional or global logistics needs."* (Manners-Bell, Dec 2003: P47)

*"Company-Y has implemented the most ambitious expansion plan. By buying Company-X3 and Company-X1, and subsequently a multitude of in-fill companies, it has constructed a global mail, express and logistics company in just over four years."* (Manners-Bell, Dec 2003: P49)

*"Shippers that do business globally want to deal with fewer carriers and logistics service providers. XXX services, meanwhile, are seeking new sources of revenue. They see parcel, express, and logistics as natural avenues for expansion — and private parcel and logistics companies as a ready-made entrée into foreign markets. ... Company-Y and Rival-A may be the pioneers when it comes to public-private collaboration, but may other organizations are following their lead."* (Quinn, 2004: P71-72)

*"The number and complexity of these alliances and other like them have caused some uncertainty, if not confusion, among logistics managers. The real issue is to understand that the rules of international delivery have changed, and probably will continue to do so in the foreseeable future. ... Once managers do [sort out how to effectively utilize this new array of options], it becomes clear that matching the breadth of coverage and infrastructure of the services with the expertise, market savvy, and innovation of the private parcel delivery and logistics companies creates a winning combination for shippers."* (Quinn, 2004: P74)

*"Company-Y's experience in integrating acquisitions has proven useful in getting the new company branded and out in the market. This acquisition [Company-X1's acquisition of Company-X4 in the USA in 2003] gave Company-X1 an immediate major presence in North America..."* (Hannon, 2004: P48)

*"When you take the high quality structure Company-X1 was known for and marry it with the low-cost structure of Company-X4, it is a good fit."* (Hannon, 2004: P48)

*"Company-X1 may soon make a play in the LTL trucking market as well and shippers can expect Company-X to put more automation in its hubs and driver larger shipments into its Company-X3 international air freight unit."* (Hannon, 2004: P48)

*"The legal action Rival-A and Rival-C took to squash the merger [Company-X1 acquisition of Company-X4 in the USA in 2003] ...is a clear indication of how seriously Rival-A and Rival-C are taking the new kid on the block."* (Hannon, 2004: P48)

*"...the rise of a third major shipping presence [Company-X1 + Company-X4 in the USA] is a good chance for shippers to review their existing contracts and find out who will give the best combination of services and prices today. The real winner in all of this is the shipper."* (Hannon, 2004: P49)

*“Trying to integrate two businesses after a merger can be a lengthy, complicated procedure, not least because of the need to combine two or more computer systems and make sure there is a single set of clean and current data.”* (MacLeod, 2004)

*“So what do IT directors do when there are four businesses using 113,000 desktop PCs, 2,600 application servers, 2,500 databases and 1,500 applications to merge? Add to that 60,000 e-mail accounts, 290 server locations and 18 regional datacentres and it is clear that Company-X, which faced exactly that scenario, had a substantial integration challenge.”* (MacLeod, 2004: P30)

*“During the past three years, Company-Y has acquired the global express carrier Company-X1, European express company Company-X2 and international freight forwarding and transport specialist Company-X3. Because Company-X1 is the strongest of the three brands, Securicor, Company-X3 and many Company-Y activities have been amalgamated under the Company-X1 name. But this also meant merging the companies' IT systems.”* (MacLeod, 2004)

*“...since 1996, Company-Y expanded rapidly both at home and abroad... to become a world leader in the air shipping.”* (Carbone and Stone, 2005: P500)

*“The third and final stage of the strategic plan is the full integration of the acquisitions and the leverage of the global platform... This also involves closer co-operation between the divisions and cross-selling of product to the extensive customer base which Company-Y hopes will enable it to become a single source for all logistics needs.”* (Transport Intelligence, 2006: P54)

*“The successful absorption of Company-X1 into the company. Company-X1 has a million customers to which Company-Y can sell European express or logistics products.”* (Transport Intelligence, 2006: P54)

*“One of the results of integration issues was that customer service deteriorated and... it was losing credibility as well as incurring substantial costs in service recovery.”* (Transport Intelligence, 2006: P55)

## Appendix G: Supplier KAM Q-sorting Result

### Original variables (from the literature)

No.	Variable	No.	Variable	No.	Variable	No.	Variable
1	Pre-service expectation	9	Account mgt quality	17	Supplier reputation	25	Market dynamism
2	Service performance	10	Bonding activities	18	Employee turnover	26	Supply complexity
3	Customer benefits	11	Supplier commitment	19	Product/service breadth	27	Relationship length
4	Cost, price	12	Expertise, capability	20	Supplier initiative	28	Supply importance
5	Employees satisfaction	13	Customer orientation	21	Acceptable alternatives	29	Company size
6	Flexibility, adaptation	14	Complaint handling	22	Switching cost	30	Cultural differences
7	Communication, info-sharing	15	Customer status	23	Customer involvement	31	Psychological contract
8	Fairness, benevolence	16	Multi-channel integration	24	Competitive intensity		

### Newly identified variables (through the interviews)

No.	Variable	No.	Variable
X1-32	Supplier's IT capability	X8-34	Difference in merging parties' organizational culture
X3-32	Supplier's SMT involvement	X14-34	Supplier's environmental friendliness
X4-32	Consistency in supplier's organizational set-up	X14-35	Supplier's operational stability
X8-33	Service coverage	X19-32	Ease of use

### Supplier KAM 1/4: Rank order of the variables in a business as usual situation

ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	X1-32	X3-32	X4-32	X8-33	X8-34	X14-34	X14-35	X19-32	10S	10L		
X-1	5	5	5	7	3	4	5	5	6	5	6	5	6	4	3	4	3	5	3	5	3	5	3	5	4	5	2	3	5	5	0	0	0	0	0	0	0	0	0	0			
X-2	6	7	6	6	4	5	7	5	7	4	7	6	7	6	5	7	4	7	4	5	3	4	6	5	4	4	4	6	2	3	5	0	0	0	0	0	0	0	0	0			
X-3	3	7	5	7	5	7	6	5	5	7	5	7	6	6	6	5	7	7	4	6	5	4	6	5	4	6	5	6	8	2	5	0	6	0	0	0	0	0	0	0			
X-4	6	7	5	5	6	6	6	5	7	5	6	7	6	7	6	5	7	7	5	6	7	5	6	7	7	4	5	5	4	4	0	0	6	0	0	0	0	0	0	0			
X-5	3	6	6	7	6	5	6	5	6	5	6	5	6	5	4	3	7	3	7	2	5	7	5	3	6	4	5	2	5	4	6	0	0	0	0	0	0	0	0	0			
X-6	7	6	7	6	6	7	6	7	5	6	7	5	5	3	2	7	6	6	6	5	3	6	5	6	1	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0			
X-7	4	6	7	7	4	5	4	5	5	3	4	6	5	5	6	5	3	2	7	6	3	6	6	7	4	4	5	0	0	6	0	0	0	0	0	0	0	0	0				
X-8	7	5	5	8	5	6	5	4	6	4	6	6	7	7	5	4	5	4	5	7	3	4	6	6	6	5	5	3	5	6	5	0	0	6	0	0	0	0	0	0			
X-9	4	7	2	6	5	5	6	4	7	2	4	7	7	6	7	4	6	6	5	6	5	7	6	2	5	3	6	1	1	3	7	0	0	6	0	0	0	0	0	0			
X-10	4	6	5	6	8	2	5	5	7	6	4	7	6	7	6	5	5	6	5	6	5	6	7	6	5	4	5	1	4	7	0	0	0	0	0	0	0	0	0				
X-11	6	6	5	6	7	7	7	4	6	7	7	7	6	7	5	6	5	3	6	5	3	7	4	5	6	7	6	5	3	5	0	0	0	0	0	0	0	0	0				
X-12	5	6	7	6	5	7	6	5	7	6	5	6	6	6	4	4	2	6	6	5	6	7	6	5	7	4	6	4	4	5	0	0	0	0	0	0	0	0	0				
X-13	3	6	5	7	3	6	4	4	6	4	6	5	7	4	5	5	6	3	5	7	4	6	5	4	6	5	4	4	5	5	0	0	0	0	0	0	0	0	0				
X-14	5	7	5	5	6	6	4	6	5	6	6	6	5	6	5	5	6	6	4	7	7	4	5	5	6	2	4	5	6	0	0	0	0	5	4	0	7	0					
X-15	6	5	5	3	6	5	4	6	7	5	6	6	5	5	7	4	5	7	3	7	5	6	4	3	2	4	3	2	3	3	0	0	0	0	0	0	0	0	0				
X-16	6	7	6	6	8	6	5	5	6	7	3	6	6	7	5	4	5	4	5	5	7	7	6	4	5	5	6	4	5	4	0	7	0	0	0	0	5	4	0	0			
X-17	5	7	5	7	6	5	7	5	5	6	7	7	6	4	3	5	6	3	4	5	3	2	4	5	3	2	4	6	2	0	0	0	0	0	0	0	0	0					
X-18	6	6	5	4	7	6	6	7	7	5	5	7	7	6	5	5	7	6	7	6	5	5	6	4	6	6	5	4	5	0	0	0	0	0	0	0	0	0					
X-19	6	5	7	5	6	2	5	4	4	3	3	6	4	6	4	4	4	7	3	4	7	7	6	2	5	5	4	4	5	0	0	0	4	0	0	5	6	3					
X-20	4	7	6	7	2	7	6	5	6	5	7	7	7	5	5	6	7	1	6	6	5	5	7	5	3	4	5	5	3	2	6	0	0	0	0	0	0	0	0	0			
Overall	5.1	6.2	5.5	6.0	4.9	5.7	5.5	5.3	6.4	4.6	5.7	6.3	6.3	6.0	5.7	5.0	5.0	4.9	4.8	5.0	6.2	4.5	5.6	6.0	5.0	3.8	5.3	4.9	5.5	3.1	3.6	5.0	1.8	0.7	0.6	0.6	0.4	0.3	0.5	0.7	0.5	0.5	0.5

Highly important      Important

ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	X1-32	X3-32	X4-32	X8-33	X8-34	X14-34	X14-35	X19-32	10S	10L		
X-1	5	6	5	7	3	4	6	5	6	5	6	5	6	4	3	5	3	5	3	5	3	5	3	5	4	5	2	3	5	5	0	0	0	0	0	0	0	0	0	0	0		
X-2	6	7	6	6	4	5	7	5	7	4	7	6	7	6	6	7	4	7	4	5	3	4	6	5	4	4	4	6	2	3	5	0	0	0	0	0	0	0	0	0	0		
X-3	3	7	5	7	5	7	6	5	5	7	5	7	6	6	6	5	7	5	7	4	6	5	4	6	5	6	6	2	5	0	6	0	0	0	0	0	0	0	0	0			
X-4	6	7	5	5	6	6	6	5	7	5	6	7	6	7	6	5	7	7	5	6	6	5	6	7	7	4	5	5	4	4	0	0	6	0	0	0	0	0	0	0	0		
X-5	3	7	6	7	6	6	6	5	5	6	7	5	4	3	7	3	7	5	7	7	5	3	6	5	2	5	5	6	0	0	0	0	0	0	0	0	0	0					
X-6	7	6	7	6	6	7	6	7	5	6	7	5	5	3	5	3	2	7	6	6	6	5	3	6	5	1	4	4	0	0	0	0	0	0	0	0	0	0					
X-7	4	6	7	7	4	5	4	5	5	3	4	6	5	5	6	7	6	3	5	5	6	4	6	6	6	3	6	6	7	4	4	0	0	6	0	0	0	0	0	0	0	0	
X-8	7	5	5	6	5	4	6	4	6	6	7	7	5	4	5	4	5	7	3	4	6	6	6	5	5	5	6	3	5	6	5	0	0	0	0	0	0	0	0	0	0		
X-9	4	7	2	6	5	5	6	4	7	2	4	7	7	4	2	4	7	4	6	6	5	6	7	6	2	5	3	6	1	1	6	7	0	0	6	5	0	0	0	0	0	0	0
X-10	4	6	5	6	2	5	5	7	6	4	7	6	7	6	5	5	6	5	6	5	6	7	6	5	4	5	5	4	1	4	7	0	0	0	0	0	0	0	0	0	0		
X-11	6	6	5	6	7	7	4	6	7	7	7	6																															

## **Supplier KAM 3/4: M&A impact rating**

ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	X1-32	X3-32	X4-32	X8-33	X8-34	X14-34	X15-35	X19-32	
X-1	0	0	0	1	-1	0	0	0	-1	0	-1	0	-1	0	-1	1	1	0	2	-1	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
X-2	0	0	0	0	-1	-1	-1	0	-2	0	-2	0	-1	-1	0	-1	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
X-3	0	0	0	0	-1	-1	-1	0	0	0	0	-1	-1	0	0	0	0	0	0	1	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
X-4	0	0	0	0	-1	0	0	0	0	0	0	1	0	-2	1	0	0	-1	-1	-1	-2	0	-2	-2	0	-1	0	0	0	0	0	0	-2	0	0	0	0	0		
X-5	0	-2	0	0	-2	-1	1	0	0	0	0	-1	-2	-1	0	0	-1	-2	-1	-1	0	0	-1	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0		
X-6	0	-2	0	0	-2	-1	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0		
X-7	-1	-1	0	-1	-2	0	0	0	0	0	-1	0	-1	0	-2	0	0	2	0	0	0	0	-1	0	0	0	2	0	0	-1	0	0	0	0	0	0	0	0		
X-8	0	-2	0	0	0	0	0	0	-1	0	0	0	0	2	2	0	0	0	0	2	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
X-9	0	-1	0	0	0	-2	0	0	0	0	1	0	-1	-1	0	0	0	-2	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0		
X-10	0	0	0	0	0	1	0	-1	-2	0	-1	0	2	0	-1	-2	0	0	1	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
X-11	0	-2	0	0	1	2	1	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
X-12	0	-1	-1	0	-1	-1	0	-1	1	0	-1	-1	-1	1	0	0	0	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
X-13	0	-2	1	-1	-2	-1	0	0	-2	0	0	0	-1	-2	-1	-1	-1	0	-1	-1	0	0	0	-1	0	0	-1	0	0	0	0	0	-2	0	0	0	0	0		
X-14	0	-1	0	0	-2	-2	-1	0	-1	0	-1	-2	-2	0	0	0	-2	2	0	0	0	-2	0	0	0	2	2	0	-1	-2	0	0	0	0	0	0	0	0		
X-15	0	-1	0	0	-1	-2	-1	0	1	0	0	-1	-2	0	1	0	-1	-2	0	0	0	-1	0	0	0	0	0	0	-1	0	0	0	-1	0	0	-1	0	0		
X-16	1	-2	-1	0	-1	-2	0	0	-2	0	0	0	-1	0	1	0	0	-1	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	-1	0	0		
X-17	0	-2	0	1	-2	0	-1	0	-1	0	-1	-1	-2	-2	0	0	0	-2	2	0	0	0	0	-1	0	0	0	1	0	0	-2	0	0	0	0	0	0	0		
X-18	0	-1	0	1	0	0	0	0	-1	0	0	-1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	-1	0	0	0	0	-1	0	0	0	0	0	0		
X-19	0	0	2	0	-1	0	0	0	0	0	0	2	0	-1	0	0	2	0	1	0	1	-1	-1	1	0	0	0	0	0	1	0	0	0	-2	0	0	-1			
X-20	0	0	1	0	0	0	2	0	0	0	0	1	-1	-1	-1	0	-1	0	2	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0		
Overall	0.0	1.0	0.1	0.1	1.0	0.6	0.0	0.1	0.7	0.0	0.3	0.1	0.8	0.7	0.0	0.3	0.2	0.7	0.8	0.4	0.1	0.1	0.2	0.5	0.0	0.1	0.0	0.3	0.0	0.1	0.1	0.3	0.0	0.1	0.0	0.4	0.0	0.1	0.1	0.1

## **Supplier KAM 4/4: Implication --- Rank order (M&A) x M&A impact rating**

ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	X1-32	X3-32	X4-32	X8-33	X8-34	X14-34	X14-35	X19-32	
X-1	0	0	0	7	-3	0	0	0	-6	0	-7	0	-5	0	-6	4	3	0	6	-5	0	0	0	-3	0	0	0	0	0	0	-5	0	0	0	0	0	0	0		
X-2	0	0	0	0	-4	-5	-7	0	-14	0	-14	0	-7	-6	0	-7	0	-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
X-3	0	0	0	0	-5	-7	0	-14	0	0	0	0	-5	-7	6	0	0	0	0	4	0	0	-5	0	0	0	0	0	0	-5	0	0	0	0	0	0	0			
X-4	0	0	0	0	-6	0	0	0	0	0	0	0	7	0	-14	7	0	0	-5	-7	-7	-10	0	-12	-10	0	-7	0	0	0	0	0	0	-12	0	0	0	0		
X-5	0	-14	0	0	-12	-6	7	0	0	0	0	-6	-14	5	0	0	-7	6	-7	-5	0	0	-5	0	0	0	0	-2	0	0	0	0	0	0	0	0	0			
X-6	0	-12	0	0	-12	-7	0	0	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
X-7	-4	-6	0	-7	-8	0	0	0	0	0	0	-6	0	-5	0	-14	0	0	10	0	0	0	0	-6	0	0	0	14	0	0	-4	0	0	0	0	0	0			
X-8	0	-10	0	0	0	0	0	-6	0	0	0	14	14	0	0	0	0	10	0	-3	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0				
X-9	0	-7	0	0	0	-10	0	0	0	0	4	0	-7	-4	0	0	0	-12	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0			
X-10	0	0	0	0	0	5	0	-7	-12	0	-7	0	-14	0	-5	-10	0	0	5	-6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
X-11	0	-12	0	0	7	14	7	0	0	0	7	7	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
X-12	0	-6	-7	0	-5	-7	0	-5	7	0	-5	-6	-6	-6	0	0	6	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
X-13	0	-12	5	-7	-6	-6	0	0	-12	0	0	0	-7	-8	-5	-5	-6	0	-5	-7	0	0	0	-5	0	0	0	-4	0	-5	0	0	0	0	-10	0	0			
X-14	0	-7	0	0	-14	-12	-6	0	-6	0	-6	-12	-12	0	0	0	5	-14	12	0	0	0	0	-10	0	0	0	12	4	0	-5	-12	0	0	0	0				
X-15	0	-5	0	0	-7	-10	-7	0	7	0	0	-6	-10	0	7	0	5	-14	0	0	0	-6	0	0	0	0	0	-3	0	0	0	-5	0	0	-6	0				
X-16	6	-14	-6	0	-6	-10	0	0	-14	0	0	0	-7	0	5	0	0	-4	10	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	-7	0			
X-17	0	-14	0	7	-10	0	-5	0	-7	0	-5	-6	-14	-14	0	0	0	-10	12	0	0	0	0	-5	0	0	0	7	0	0	0	-12	0	0	0	0	0			
X-18	0	-6	0	4	0	0	0	0	-7	0	0	-7	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	-6	0	0	0	0	0	0			
X-19	0	0	14	0	-6	0	0	0	0	0	0	0	12	0	-6	0	0	8	0	7	0	4	-7	-7	6	0	0	0	0	0	5	0	0	0	0	14	0	0	-7	0
X-20	0	0	6	0	0	0	12	0	0	0	7	-7	-5	-5	0	-7	0	12	6	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0		
Overall	0.1	-6.3	0.6	0.2	-4.9	-3.1	0.1	-0.6	-4.6	0.0	-1.7	-0.5	-4.7	-3.8	0.3	-1.6	0.4	-4.0	4.2	-2.3	-0.2	-0.4	-1.0	-2.5	0.0	0.1	0.0	1.7	-0.1	-0.2	-0.3	-1.5	0.0	-0.6	0.0	-2.0	0.0	-0.4	-0.7	

## Appendix H: Customer Q-sorting Result

### Original variables (from the literature)

No.	Variable	No.	Variable	No.	Variable	No.	Variable
1	Pre-service expectation	9	Account mgt quality	16	Multi-channel integration	24	Competitive intensity
2	Service performance	10-1	Social bonding activities	17	Supplier reputation	25	Market dynamism
3	Customer benefits	10-2	Legal bonding activities	18	Employee turnover	26	Supply complexity
4	Cost, price	11	Supplier commitment	19	Product/service breadth	27	Relationship length
5	Employees satisfaction	12	Expertise, capability	20	Supplier initiative	28	Supply importance
6	Flexibility, adaptation	13	Customer orientation	21	Acceptable alternatives	29	Company size
7	Communication, info-sharing	14	Complaint handling	22	Switching cost	30	Cultural differences
8	Fairness, benevolence	15	Customer status	23	Customer involvement	31	Psychological contract

### Newly identified variables (through the interviews)

No.	Variable	No.	Variable
C1-32	Supplier's IT capability	C5-33	Supplier's operational structure
C2-32	Supplier's M&A activities	C7-32	Availability of on-site service agent
C2-33	Supplier's industry specialization	C9-32	Lost/damaged shipments
C3-32	Difference in merging suppliers organizational culture	C9-33	Security control and follow-up for lost/damaged
C5-32	One-stop shopping	C17-32	Supplier's investment in innovation

### Customer 1/4: Rank order of the variables in a business as usual situation

ID	1	2	3	4	5	6	7	8	9	10-1	10-2	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	C1-32	C2-32	C2-33	C3-32	C5-32	C5-33	C7-32	C7-33	C9-32	C9-33	C17-32		
C1a-1b	3.0	6.0	4.0	5.0	6.0	4.0	5.0	5.0	5.0	2.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	6.0	2.0	3.0	4.0	4.0	3.0	4.0	4.0	5.0	2.0	2.0	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
C-2	4	6	6	5	5	6	5	6	5	4	5	6	5	5	5	6	6	4	5	4	5	4	6	6	5	4	5	5	4	4	6	0	6	7	0	0	0	0	0	0	0	0	0	0	0
C3a-3b	7.0	7.0	7.0	7.0	7.0	6.0	6.0	7.0	7.0	4.0	6.0	7.0	6.0	6.0	6.0	6.0	5.0	7.0	5.0	5.0	5.0	7.0	4.0	6.0	7.0	6.0	5.0	4.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
C4-5	5.5	5.5	6.0	6.5	6.5	5.5	5.5	6.0	6.0	3.0	4.0	6.5	5.5	6.0	7.0	5.5	5.0	5.0	5.5	4.0	6.0	6.0	4.5	5.5	6.0	3.5	4.0	5.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
C6-7	5.0	6.5	5.0	6.0	4.0	6.5	6.5	6.0	6.0	4.0	6.5	5.5	6.5	5.5	5.0	6.5	4.5	3.5	6.0	5.5	5.0	4.5	5.0	6.5	4.0	4.5	3.0	4.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
C-8	4	5	5	7	4	5	6	4	6	3	5	5	4	5	6	4	6	6	3	6	6	4	4	5	6	4	4	4	5	4	3	4	6	0	0	0	0	0	0	0	0	0	0	0	
C-9	4	7	4	7	5	5	6	4	7	3	4	7	6	7	6	5	5	6	3	6	5	6	5	7	3	3	3	6	5	4	4	0	0	0	0	0	0	0	0	0	0	0			
C-10	6	7	6	7	7	6	6	7	6	4	6	7	6	6	7	7	6	4	3	4	6	5	4	6	6	2	5	7	6	4	2	6	0	0	0	0	0	0	0	0	0	0	0		
C11-13	5.7	7.0	5.7	6.3	5.0	6.3	6.3	5.7	5.0	5.0	4.0	6.0	6.0	6.7	6.3	5.7	6.3	3.7	5.0	5.0	6.0	6.0	5.3	5.7	5.3	4.7	5.0	4.7	5.7	3.0	3.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
C-14	5	5	4	6	4	6	6	6	7	4	5	6	4	6	5	6	5	4	3	4	6	4	4	4	6	4	5	6	6	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	
C-15	5	7	6	7	6	6	6	5	6	2	2	6	6	5	7	5	7	5	6	5	6	6	4	6	6	4	3	4	6	7	6	6	0	0	0	0	0	0	0	0	0	0	0		
C-16	6	7	7	7	7	6	7	6	1	6	7	6	7	6	6	6	6	4	7	6	6	6	6	7	6	6	6	3	5	0	0	0	0	0	0	0	0	0	0						
C-17	4	7	5	5	4	7	6	5	6	3	3	5	6	7	7	5	5	4	6	5	6	5	5	5	3	7	3	4	5	7	0	0	0	0	0	0	0	0	0	0	0				
C-18	4	7	4	7	4	4	6	4	5	4	7	6	6	6	6	4	6	5	5	4	4	6	5	6	7	4	5	4	4	5	7	0	0	0	0	0	0	0	0	0	0	0			
Overall	4.9	6.4	5.3	6.3	5.2	5.8	5.8	5.5	5.9	3.5	4.5	6.2	5.6	6.2	6.3	5.4	5.7	4.7	5.1	4.4	5.7	5.1	4.8	5.2	6.0	4.0	4.6	4.7	5.6	4.1	3.5	5.0	2.3	0.4	0.5	0.0	0.7	0.2	0.2	0.5	0.5	0.4			

Yellow: Highly important

Light yellow: Important

Blue: More important in M&A

### Customer 2/4: Rank order of the variables during the post-M&A integration

ID	1	2	3	4	5	6	7	8	9	10-1	10-2	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	C1-32	C2-32	C2-33	C3-32	C5-32	C5-33	C7-32	C7-33	C9-32	C9-33	C17-32		
C1a-1b	3.0	6.0	4.0	5.0	6.0	4.0	5.0	5.0	5.0	2.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	6.0	2.0	3.0	4.0	4.0	3.0	4.0	4.0	4.0	5.0	2.0	2.0	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
C-2	4	6	6	5	5	6	6	6	5	4	5	6	5	5	5	6	6	4	5	4	5	4	6	6	6	5	4	5	5	4	4	6	0	6	7	0	0	0	0	0	0	0	0	0	0
C3a-3b	7.0	7.0	7.0	7.0	7.0	6.0	6.0	7.0	7.0	4.0	6.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
C4-5	5.5	5.5	6.0	6.5	6.5	5.0	5.5	6.0	3.0	4.0	6.5	5.5	6.0	7.0	5.5	5.0	5.0	5.5	4.0	6.0	6.0	4.5	5.5	6.0	3.5	4.0	5.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
C6-7	5.0	6.5	5.0	6.0	4.0	6.5	6.0	6.0	6.0	4.0	6.5	5.5	6.5	5.5	5.0	6.5	4.5	3.5	6.0	5.5	6.0	5.0	4.5	5.0	6.5	4.0	4.5	3.0	4.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
C-8	4	5	5	7	4	5	6	4	7	3	5	5	4	5	6	4	6	6	5	6	6	4	4	5	6	4	4	4	5	4	3	4	6	0	0	0	0	0	0	0	0	0	0	0	
C-9	4	7	4	7	5	5	6	4	7	3	4	7	6	7	6	5	5	6	3	6	5	6	5	7	3	3	3	6	5	4	4	0	0	0	6	0	0	0	7	7	0	0	0	0	
C-10	6	7	6	7	7	6	6	7	6	4	6	7	6	6	7	7	6	4	3	4	6	5	4	6	6	2	5	7	6	4	2	6	0	0	0	0	5	0	0	0	0	0	0		
C11-13	5.7	7.0	5.7	6.3	5.0	6.3	6.3	5.7	5.0	5.0	4.0	6.0	6.0	6.7	6.3	5.7	6.3	3.7	5.0	5.0	6.0	6.0	5.3	5.7	5.3	4.7	5.0	4.7	5.7	3.0	3.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
C-14	5	5	4	6	4	6	6	6	7	4	5	6	4	6	5	6	5	4	3	4	6	4	4	4	6	4	5	6	6	4	4	4	0	0	0	0	0	0	0	0	0	0	0		
C-15	5	7	6	7	6	6	6	5	6	2	2	6	6	5	7	5																													

## **Customer 3/4: M&A impact rating**

 Very negative     Negative     Positive     No change     Non DHL account

**1** Positive variables during the integration period (2003-2005), which turned out to be negative (e.g. after the disintegration of Company-X3)

0 Neutral variables during the integration period (2003-2005), which turned out to be negative (e.g. after the c

#### **Customer 4/4: Implication --- Rank order x M&A impact rating**

ID	1	2	3	4	5	6	7	8	9	10-1	10-2	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	C1-32	C2-32	C2-33	C3-32	C5-32	C5-33	C7-32	C9-32	C9-33	C17-32				
C1a-1b	0.0	-6.0	0.0	-10.0	-6.0	0.0	0.0	-5.0	0.0	0.0	-6.0	0.0	-12.0	0.0	0.0	0.0	-12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0									
C-2	0	-12	-6	-5	-5	-6	-6	-6	0	0	-6	0	-12	-10	-12	0	0	-5	0	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
C3a-3b	-7.0	0.0	0.0	14.0	7.0	0.0	-6.0	0.0	14.0	0.0	0.0	14.0	0.0	0.0	-7.0	6.0	-6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
C4-5	0.0	-5.5	0.0	0.0	0.0	-3.3	-5.0	0.0	-3.0	0.0	0.0	3.3	2.8	-3.0	-7.0	0.0	0.0	2.5	0.0	0.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
C6-7	2.5	9.8	2.5	3.0	0.0	6.5	9.0	3.0	6.0	0.0	0.0	9.8	2.8	6.5	2.8	2.5	3.0	0.0	0.0	6.0	2.8	2.5	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
C-8	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-9	0	-7	0	0	0	0	0	0	-7	0	0	0	0	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	0	0	-7	-14	0					
C-10	0	-7	0	0	0	0	0	0	-6	0	0	0	0	0	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0	0	0					
C11-13	0.0	-4.7	0.0	0.0	0.0	-6.3	-6.3	0.0	-3.3	-1.7	0.0	-2.0	0.0	-4.4	0.0	0.0	-4.2	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
C-14	-5	0	0	0	0	-6	0	0	-7	0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-15	0	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-16	0	-7	0	-7	-7	-6	-7	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	
C-17	0	7	0	0	0	0	0	0	-6	0	0	0	0	-7	0	0	0	0	-12	0	0	0	0	0	0	0	0	0	0	-5	-7	0	0	0	0	0	0	0	0	0	0	0				
C-18	0	-7	0	7	0	0	0	-5	0	0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	-5	-7	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0
Overall	-0.7	-3.3	-0.3	0.1	-0.8	-1.6	-1.5	-0.7	-2.5	-0.1	0.0	0.6	0.4	-2.8	-1.5	-0.8	-1.1	0.2	-2.4	0.7	-0.5	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.0	-2.4	-0.9	-0.9	0.0	-1.6	1.0	-0.1	0.2	-0.5	-1.0	0.0						

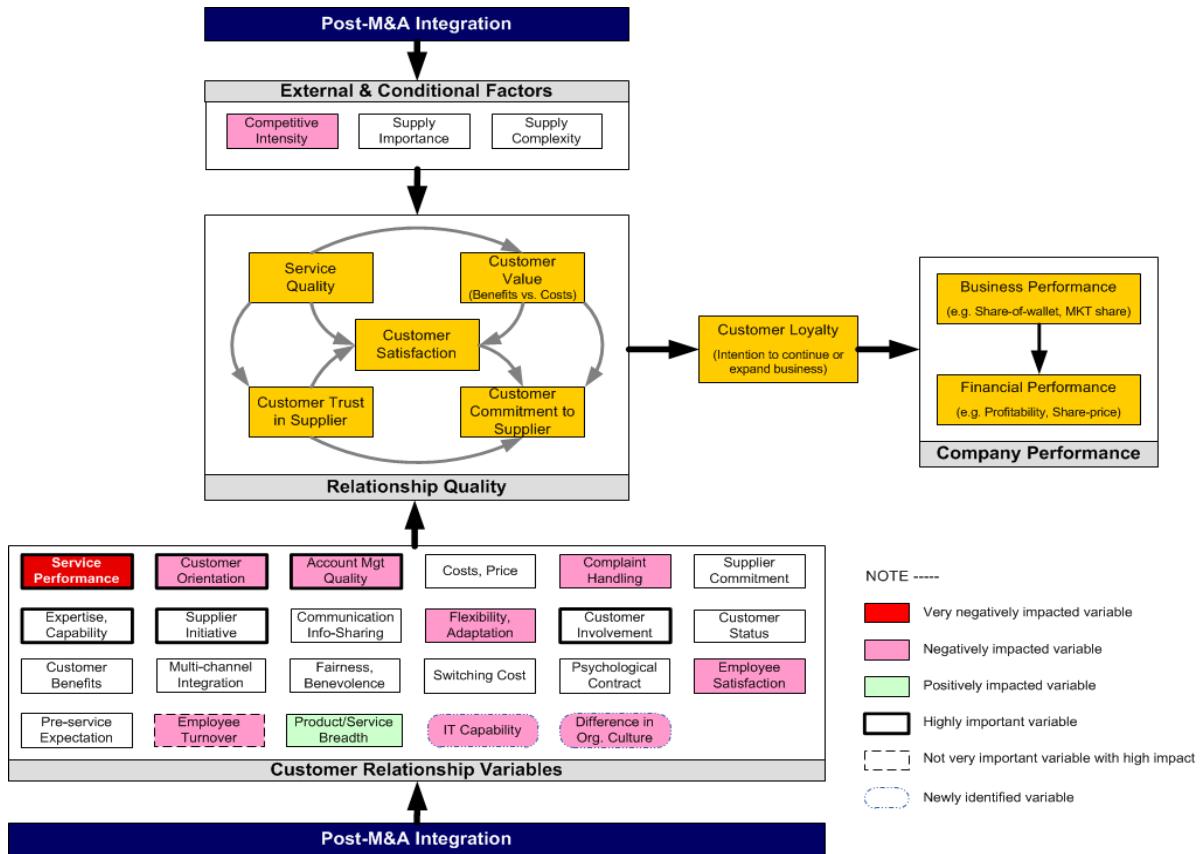
Highly negative Negative Highly positive Positive No change Non DHE account

5 Positive variables during the integration period (2003-2005), which turned out to be negative (e.g. after the disintegration of Company-X3)

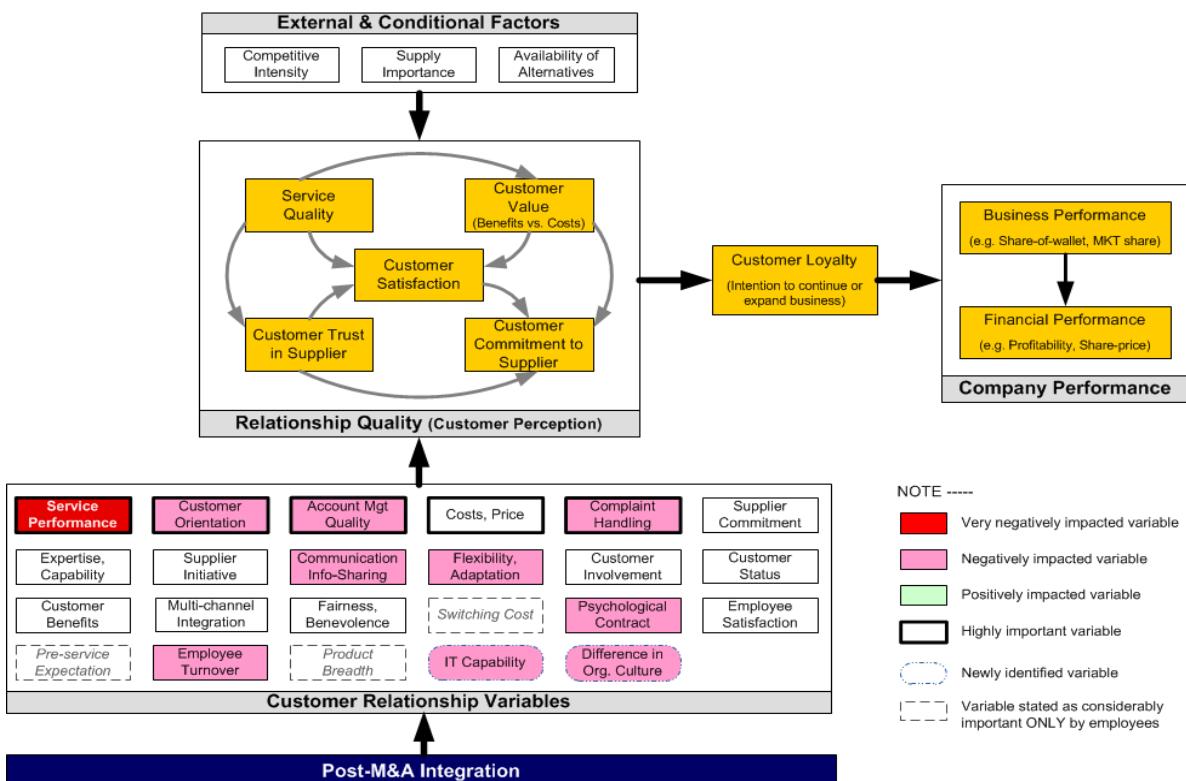
**0** Neutral variables during the integration period (2003-2005), which turned out to be negative (e.g. after the disintegration of Company-X)

## Appendix I: M&A/Integration and Customer Relationship Model

### 1. Supplier KAM Model (based on the supplier KAM interviews)



### 2. Customer Model (based on customer interviews)



## Appendix J: Supplier KAM Interview Transcript Example (Unhappy KAM)

Variable	Why/How (during the integration)	Why/How (now)
----------	----------------------------------	---------------

WH: I think in general Junichi, during the integration the organisation was really focused on internal issues rather than anything that had to do with the customer, so in terms of service performance, customer orientation and complaint handling, we didn't have the first priority in the organisation and the customer was the first one to actually experienced and saw that, so that's why I think all these elements were perceived as very negative from a customer point of view and I think in the end they had a negative impact on the relationship between the customer and the front line personnel, where this was sort of aggravating the situation where the customer was actually expressing his concerns in a continuous way and that obviously led to the situation that the employees came to a point where they just simply could not handle the big flow, the massive flow of broad negative customer feedback that they got on a day to day basis and that obviously impacted employee satisfaction negatively on the longer run as well and thus led to an increased employee turnover. So it's a sort of spiral that we got into, negative spiral, which had a negative impact on the expertise and capabilities of the personnel because we had a drain in our staffing, many people left the organisation, everything basically like I said the last resort was the account manager, we needed to try and make sure the customer would not walk away, a huge task and huge pressure on the account manager, so again huge impact on that and obviously in the end the personal relationship between customer and Company-X, in general the front line as well as internal staff between the different Company-X organisations started to be negatively impacted.

JUN: So negatively like you mentioned?

WH: Yes definitely.

JUN: I think I understand all the logic you explained... service performance, customer orientation, complaint handling, employee expertise and account management but I don't really understand how, I didn't really get your point about personal relationships, can you expand a little bit about this?

WH: Well obviously like I said this goes back to my experience that people basically buy from people, it's not organisations buying from organisations, it's the people behind that really drive those decisions and it's a logical thing. If people start not to be focused on the customer, giving value to the customer then in the end the customer is not a fool, he notices this on all levels of his organisation. So in the end the trust between people is fading away especially from a customer perspective, he starts to see all the things that he appreciated in the personal relationship which was based on trust is basically being eroded and then in the end it affects the real relationship between people like "I trusted you as a person, you were the organisation, you have now let me down..."

JUN: Yes I think I get your point.

WH: The competitive intensity, well obviously from a customer perspective, where there used to be three or four competitors, it's now three, so that started to become then more important, my experience is that and that's in line with people buying from people, if the relationship is ok then all the other elements are less important, there may be a competitor in the market that is cheaper, there may be a competitor in the market that from time to time provides better services but because the personal relationship is so stable and based on trust, these elements are not really important or ignored by the customer, however, since the personal relationship was coming under pressure during the integration, then the focus started to shift to all those other elements and the customer started to look for alternatives and that's when we really needed to be worried of course.

JUN: And are there any observations and competitive actions during the integration?

WH: Of course yes, it was a natural behaviour, they talked to the same customers as we do and they heard the comments from the customer whereas putting it on black and white in the old days the customer wasn't really interested to talk to our competitor and suddenly they became welcomed.

JUN: Why or how did the door open to the competitors?

WH: It opened because we have been in the market dominated by a small number of competitors, so we all visiting the same customers. So as soon as a Company-X account manager left, the rival companies knocked on the door. Like I said this was all as a result of the customer changing his behaviour due to the issues Company-X created during the integration. Less customer satisfaction opened the door to our competitors. Communication and info sharing, well like I said we were more focused on our internal issues, so the external communication to customers was not the same level as it was previously, a lot of our energy and resources were actually aligned to make sure that everybody internally was committed to make the integration succeed. But contra-productively we started to loose focus on the customer, it's a sort of self fitted prophecy in that area. Supplier commitment, it's all inter-related, again the prime focus on the internal issues took away where the focus should be, the customer, and from a customer perspective there was less supplier commitment. In terms of innovation it makes sense if you look at the different stadia from integration, that innovation takes place or the focus on innovation takes place after completion of the integration. So from a customer perspective, not a lot was happening during the integration, there was no service innovation in that respect, the focus was on integrating the different services and the different organisations. Once the integration completed, we started to look into our service portfolio, trying to find out what kind of requirement customer had and where the market was going. So there's a lot to cash in for Company-X after the integration, so I hope I've summarised.

JUN: Yes a very good summary, now moving to a positive side of story?

WH: From a cost and price perspective I think from a customer perspective it might be interesting times, I think for two reasons. Company-X1 organisation tended to be positioned in the market, the sort of high end position and we integrated with a lower end type of carrier, so from a customer perspective, the integration suddenly opened the door to also lower, cheaper and low end services in the market, so that could be interesting, I think that was certainly a positive element. At the same time I think we saw an increased competitive intensity in the market like I said our competitor became much more eager to try and kick in the door and at the same time the willingness, the eagerness of the customer to go and talk to the competitor from his perspective could have a positive impact on cost and pricing, so from customer perspective it is definitely a positive element, from our perspective it's questionable.

JUN: If I understood correctly, what you're saying is that from the customer's perspective it was positive but from Company-X perspective it was relatively negative...?

WH: Well obviously from our perspective, from the Company-X perspective, the integration eroded some of the existing premium business and migrated to cheaper ones, which negatively affected our bottom line.

JUN: Customer happy or not really?

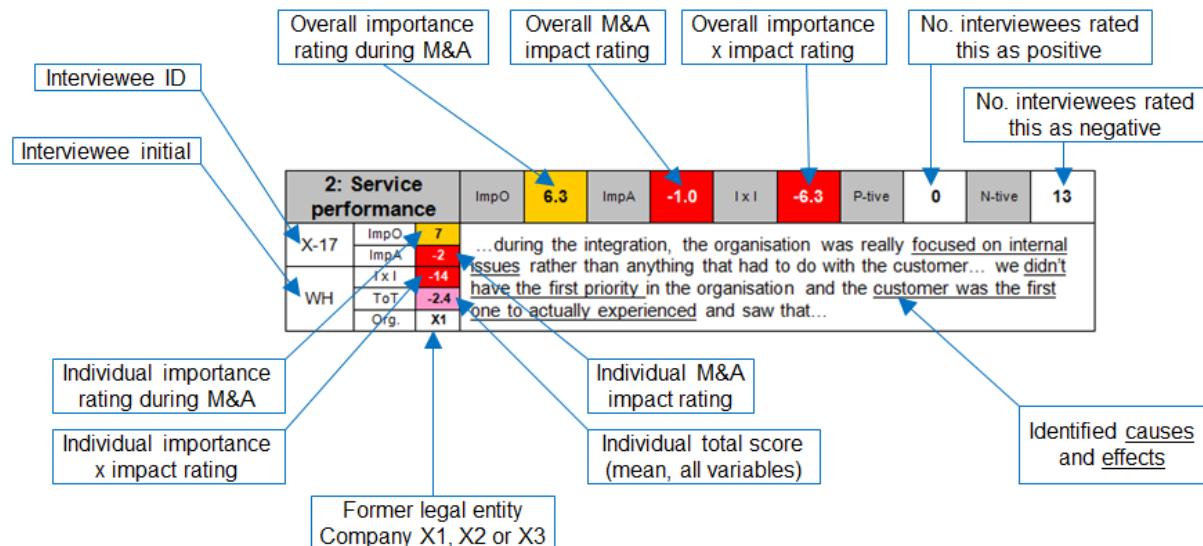
WH: Maybe a better example here, if you look at the Company-X1 service portfolio and you look at Europe, then we basically had time definite which was an air express, overnight service with premium pricing, however, if you look at the coverage of the alternative network that we sort of merged with, then you will see that a lot of the countries from a certain point having a certain action radius would have been delivered within 24 hours, so on a next day level not by air but by road at a much cheaper price, so there is a certain point of eroding of your business when you merge with a partner that has a certain overlap in businesses because it would almost be a perfect marriage if two companies that merged do not have an overlap of existing business, there is always going to be some overlap of business – ok.

JUN: Can you expand product/service breadth?

WH: Yes I think the whole idea, I think one of the driving elements between a merger or an acquisition is actually that your product portfolio or you service portfolio will enhance and I think that was the case with Company-X1 and the Company-X organisation as well, suddenly from this high end, the single high end service provider became a real integrator providing a very broad service portfolio, so from a customer perspective that was a bonus, definitely from our perspective as well of course...

## Appendix K: Supplier KAM Interview Datasheet Example

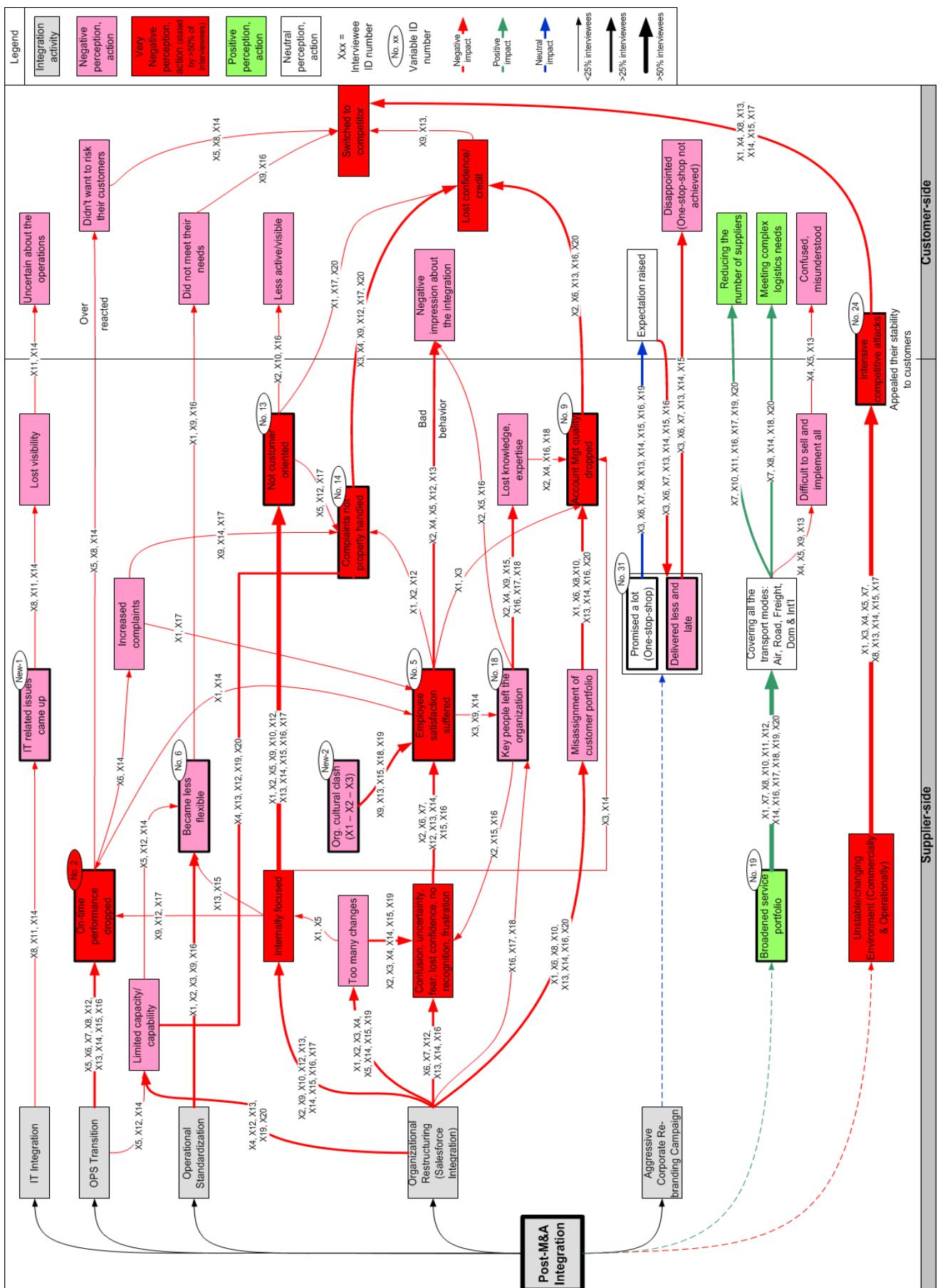
### [Legend]



2: Service performance		ImpO	6.3	ImpA	-1.0	I x I	-6.3	P-tive	0	N-tive	13
X-17	ImpO	7									
	ImpA	-2									
WH	I x I	-14									
	ToT	-2.4									
	Org.	X1									
...during the integration, the organisation was really focused on internal issues rather than anything that had to do with the customer... we didn't have the first priority in the organisation and the customer was the first one to actually experienced and saw that...											
X-5	ImpO	7									
	ImpA	-2									
PW	I x I	-14									
	ToT	-2.6									
	Org.	X1									
...it's one of the things that customer would use as a benchmark to rate how we are actually performing during this period of change and they may over-react when they see any drop in service levels to the extent where it may put the business at risk, where they don't want to risk their own customers so they'd switch immediately.											
X-16	ImpO	7									
	ImpA	-2									
TJ	I x I	-14									
	ToT	-1.3									
	Org.	X1									
...through the period of integration we closed offices, established new ones with new applications etc. etc. During the period, our service really suffered.											
X-13	ImpO	6									
	ImpA	-2									
AS	I x I	-12									
	ToT	-3.3									
	Org.	X1									
...we did try to use one facility for both services but it did not work very well. A driver from Company-X2 did not understand the importance of the premier service, which affected service performance negatively. ...especially when the premier service is not delivered...											
X-6	ImpO	6									
	ImpA	-2									
JDV	I x I	-12									
	ToT	-1.4									
	Org.	X2									
...this was the top of customer requirements. Would you keep the same level of service or not and why...? ...the aim [of the integration] was to propose a global network, full range of products but internally our goal was to save costs... during the transition phase, our performance dropped, customer complaints went up and sales went down.											

X-11	ImpO	6	...Company-X organisation could not offer what our competitors were offering on the market at that point in time. ...we were selling a very confused pallet of products to the customer with really <u>no backbone</u> ...there were <u>missing links in the chain</u> , missing links in the backbone which created <u>uncertainty</u> about what's happening with integration of Company-X...
	ImpA	-2	
JB	I x I	-12	...during the <u>integration process</u> , our <u>performance</u> was dropped, I think that's a <u>normal consequence of a transition period</u> ... It went <u>below the acceptable level</u> ... all shipments when they entered Italy, they were off the system, we couldn't see when they would be delivered... we lost half of our customers during that period.
	ToT	1.2	
	Org.	X2	
X-8	ImpO	5	...it's a period of time when we <u>could not provide stable services</u> to the customer and the <u>customer was not comfortable</u> . So they were very <u>keen to know what's going on</u> and <u>what would be in the near future</u> ... The <u>reality</u> was probably <u>just negative</u> but the <u>perception</u> from the customer was probably <u>even worse than that</u> ... we were been integrated and we were <u>not having the right system to support</u> , we <u>could not track and trace</u> shipments, we weren't providing the right level of service performance. We saw a <u>mess</u> in Italy, in the UK in France and even worse in the US...
BP	ImpA	-2	
	I x I	-10	
	ToT	1.0	
	Org.	X2	
X-14	ImpO	7	...it wasn't at a particularly high level before but probably as the same reason as before [ <u>internal focus</u> ], operations and sales were kind of working in tandem in terms of facing the same problems.
PL	ImpA	-1	
	I x I	-7	
	ToT	-2.6	
	Org.	X1	
X-9	ImpO	7	...it was on the way to improve the previous situation because of the combination of the different Roads services... combined with the negative impact of the <u>internal focus</u> and <u>integration process</u> ... operationally it was obviously on a <u>lower level</u> at the time...
AF	ImpA	-1	
	I x I	-7	
	ToT	-1.4	
	Org.	X2	
X-12	ImpO	6	...Company-X1 used to be perceived as an extremely high quality service. Other companies that had been merged at that time did not have the level or the perception ... the customer thought that the <u>same quality of the premier</u> would be applied to all services, 99% on-time, track & trace, all that kind of nice things that we can offer in the premier services, they were expecting us to provide that and <u>it was not the case</u> ...The premier <u>service performance went down</u> ... the customers were <u>extremely disappointed</u> ... <u>other merging parties' [Company X2 &amp; X3]</u> <u>performance</u> were so low, it gave a bad image to Company-X as a whole, we got the feedback from the market...
RR	ImpA	-1	
	I x I	-6	
	ToT	-1.3	
	Org.	X2	
X-7	ImpO	6	...the Time Definite services especially in Europe the investments made in the network and the new air hub we gained a lot on performance level and the customer emphasised this change. [But] Those are the final outcomes of the integration but we didn't see clear benefits during the period.... our <u>on time performance dropped significantly</u> during the period.
CVH	ImpA	-1	
	I x I	-6	
	ToT	-1.3	
	Org.	X1	
X-15	ImpO	5	...the Time Definite services especially in Europe the investments made in the network and the new air hub we gained a lot on performance level and the customer emphasised this change. [But] Those are the final outcomes of the integration but we didn't see clear benefits during the period.... our <u>on time performance dropped significantly</u> during the period.
BV	ImpA	-1	
	I x I	-5	
	ToT	-2.2	
	Org.	X1	

## Appendix L: Supplier KAM Causal Map



## Appendix M: Customer Interview Transcript Example (Happy Customer)

Variable	Why/How (during the integration)	Why/How (now)
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YP: First, the cost/prices, due to the fact that Company-X became more important for us and we for them, this had a very big positive impact on our price or rates.

JUN: Oh it's very positive.

YP: Yes because after the merger we could bring more volume to convince Company-X who was looking for big business with us.

JUN: Interesting point, so I believe you've got...

YP: We got better price and even better service not only from Company-X1 but also from other integrating parties like Company-X2, which was a positive impact. Let me see... account management quality, I think after the integration this [account management quality] has improved very much because we have key persons to contact, we get a better understanding from Company-X side, for our business and for the total volume of all the countries we serve, so I think it was a very positive impact.

JUN: It's a great point but I am asking during the integration, not after integration.

YP: During the integration, we had our key contact persons from Company-X entities, we contacted them and we still have all the contacts.

JUN: Fair point.

YP: During the integration we had a lot of discussions and convinced some of the channels of Company-X about the importance of doing business with us. I think small companies were not so much interested in you but large ones like us were very much interested in you and you understood us more than before thanks to all the different entities merging together. Supplier commitment, during the integration from Company-X's side, was positive although it took some time.

JUN: It's interesting, it took some time, right...?

YP: During the integration, within the Company-X organisation, we had a feeling that there was a clear difference in organisational culture between Company-X1, X2, X3, and also a different approach towards the customer. From our side we existed, we did not change during your change, so for them it was more difficult than for us.

JUN: So then during the integration supplier commitment I guess was more ...

YP: Mmmm no during the integration they learned to understand us, so it had a very positive impact on the relationship with us, it was very important for us. We did not change, Company-X changed, different cultures, different organisations, different countries, different ways of working but during the first two years for us this was very important and it was Company-X that learned very quickly how to deal with companies like ours.

JUN: So, we could show commitment to you during the integration period...

YP: Everybody did it in their own way but due to the fact that we were already a big customer for one of the former Company-X organisation [X2], the communication between the rest of them was very fast and they understood our needs and our expectations, so that's why we say the commitment as soon as they started to merge from Company-X side and from our side, which was very positive.

KVD: This one the pre-service expectation was high because they merged together and it was higher than before, and during the integration we had a higher expectation...

YP: I think our expectations were high and Company-X expectations were high, from our point of view we have also done some mergers and then lost some customers, when you merge one and one you never get two, you end up with one and a half because customers don't want to put all the eggs in one basket, so our views were a little bit reserved on this. [psychological contract] I'd say looking back when it started to roll out, everything was not really negative but also not positive

KVD: I think it's negative.

JUN: Karel it's from your experience, right?

KVD: Yes absolutely.

YP: Yes because when there are such big changes to be done, we always have to wait what is going to happen, after a short period they know whether it works or not, and then we would be convinced that we can get benefit from that. So the first impression of the integration was like 'be careful'.

KVD: Complaint handling, how was it during the integration, maybe it's just negative because we had to deal with more companies [merging Company-X parties] with more people during that time, we were accustomed to deal with only one contact.

JUN: So the complaint handling was negative.

KVD: And that's very important for our customers.

YP: Number 15 the customer status was positive, when the integration was going on, we understood our importance to your company, so we took the benefit immediately, we felt our power.

YP: Number 7, the communication info sharing, in the beginning it was negative because all the different companies had a different way of communication and sometimes not even open and sometimes we suffered from that so that was negative in the beginning.

KVD: This one multi-channel integration, during the integration it was negative because we were sometimes confused with different information from different entities, it went better afterwards though.

JUN: So the multi-channel integration was also negative...

YP: Yes. Employee satisfaction, I think this was from both sides positive, the reason for this is that the key contact person came here and announced the merger of some companies, saying they became able to bring more services, higher quality... in a very positive way to take our fears away. At that time, we were holding back and saying this might bring problems in service quality, but they looked motivated and that's why they succeeded in convincing us. During the integration, this was very important, so it was very positive.

JUN: Anything else?

YP: Our involvement... this was nothing to do with the integration.

KVD: Flexibility it was positive, they had to change everything and they showed willingness to change. They had to because they had no choice to be honest.

YP: Then I think it's a negative one because we still do not have the optimum situation, for example, we still have different customer numbers within Company-X. When we deal with Company-X3, we have five different account numbers, but from our view Company-X is Company-X. So if we want to bring a complaint on Company-X3, we would bring it to the local domestic account manager, he would say it's not mine. Now he knows where to go but we had a problem there and so I think the flexibility is there now but during the days it was not there.

JUN: It's negative yes, I think that's what you explained in the beginning of the interview.

YP: Psychological contract, well Company-X still has not succeeded to do that, so I think it would still take some years before they solve that. For example, we are now working on a project to just try and get a file which can be used within St. Gobain to control invoices and between the different organisational level, they are not capable of providing one type of record which we need, so I hope they will proceed that but at this moment and from the beginning on I think that in this case Company-X still has much to do, they merged the companies but not the organisation and not the reporting and the communication, so it's negative.

JUN: So even after 5 years, it's still ... still not reaching your psychological level of expectation, anything else?

YP: Supplier reputation, this must be good otherwise we would not deal with them. That's all, I think.

JUN: I interviewed so far two different customers with totally different views, some customers showed only negatives, some customers had plus and minus. Apparently you had more positives than negatives during the integration...

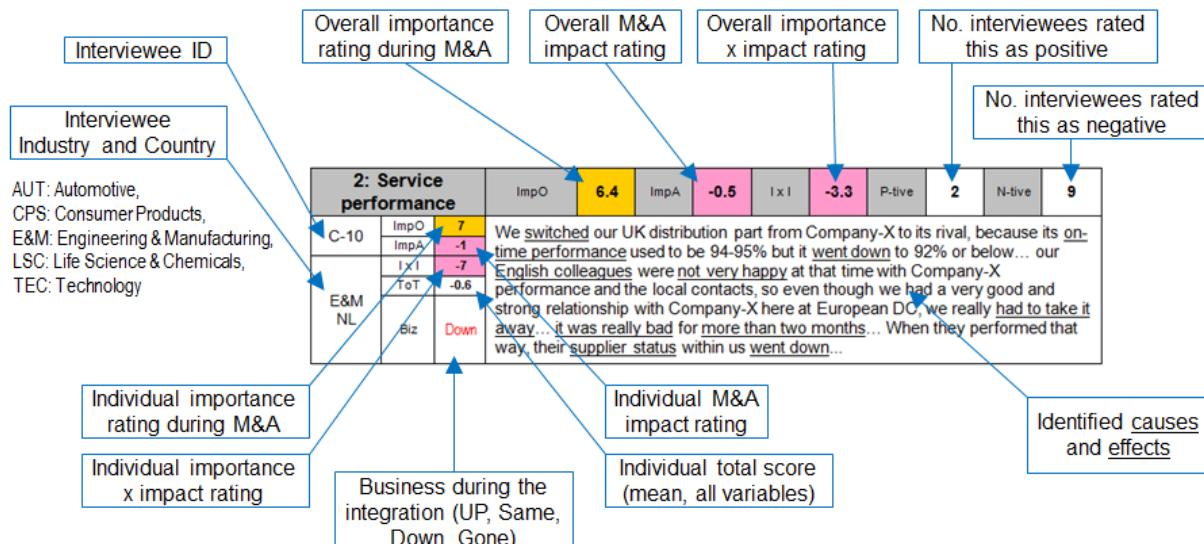
KVD: I think we are more honest, we cannot have only negative things, which is what I also tell to our customers, even if everything looks very bad.

YP: On the other hand, I've been working for the company for 30 years and he has also been here for a very long time, we were taken over by XXX beginning of the 90's, since then we have done a lot of mergers. For each of the company we merged, the expectations were very high, I know the expectations and problems we have had internally and the expectations our customers have had. So that's why we understand the problems Company-X had because we also have integrated a lot of companies including competitors. When you start integration, indeed the culture is different, the way of working is different and the reporting system is different... But one of the things which St. Gobain did was that they put everything together and managed business with one single computer and reporting system and we were forced to communicate more and to work closer with each other, which I think helped a lot.

Concerning Company-X, I still see that they work with different systems, different kinds of reporting, different ways of calculations, for example if you look at invoices from each division, they are all different, which is one of the things should have been solved after 5 years. Simply from the top if you say we are going to use this system and this type of invoicing so that customer gets an invoice from Company-X showing the same information on it, you would find your way more easily. We know our key contacts, if we have a problem with Company-X3, I don't want to go to them, I'll call my local account manager from Company-X1 and say we have a problem, solve it. If Company-X doesn't do it, we tell them how to do it, that's the only way we can do...

## Appendix N: Customer Interview Datasheet Example

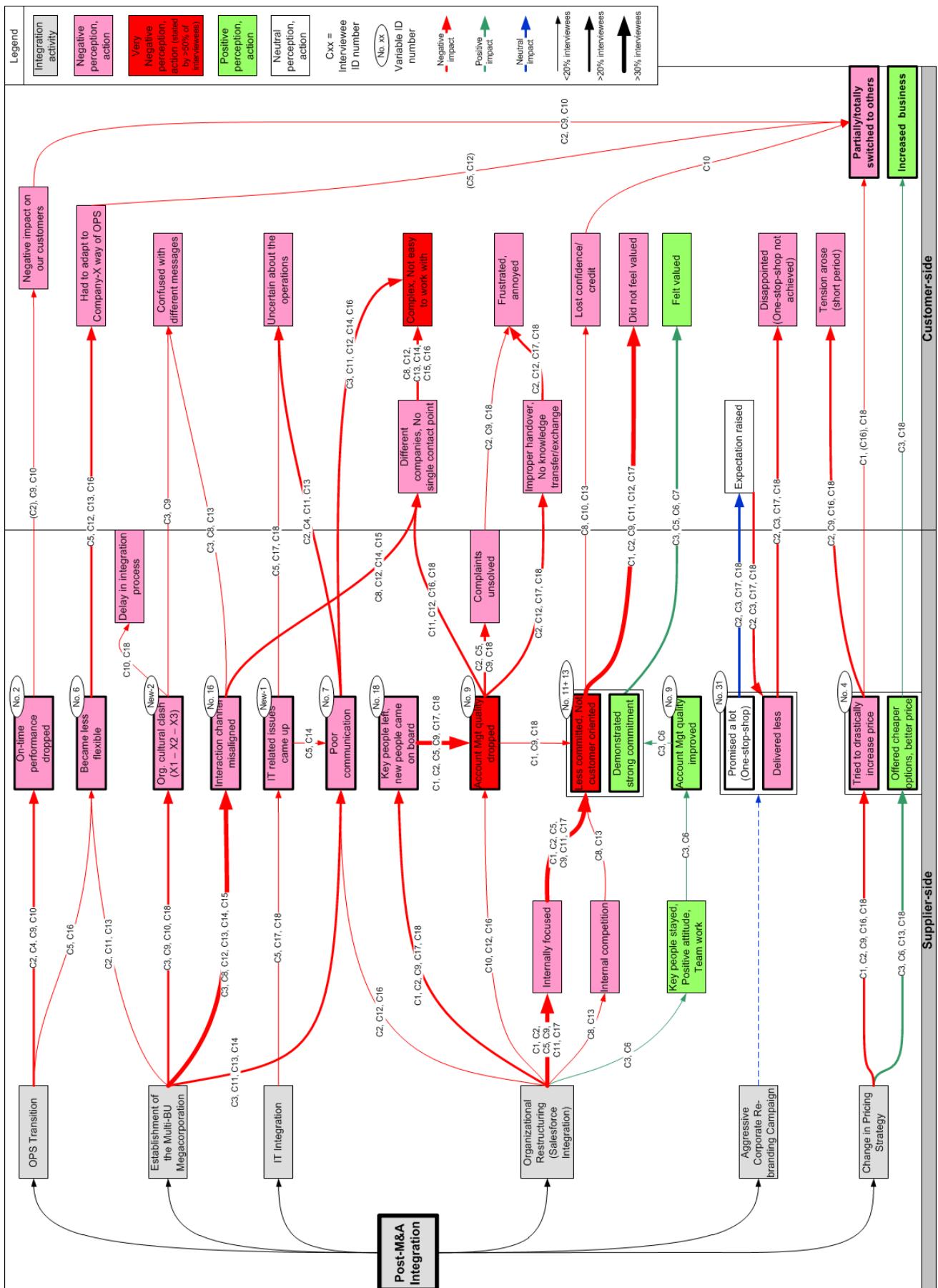
### [Legend]



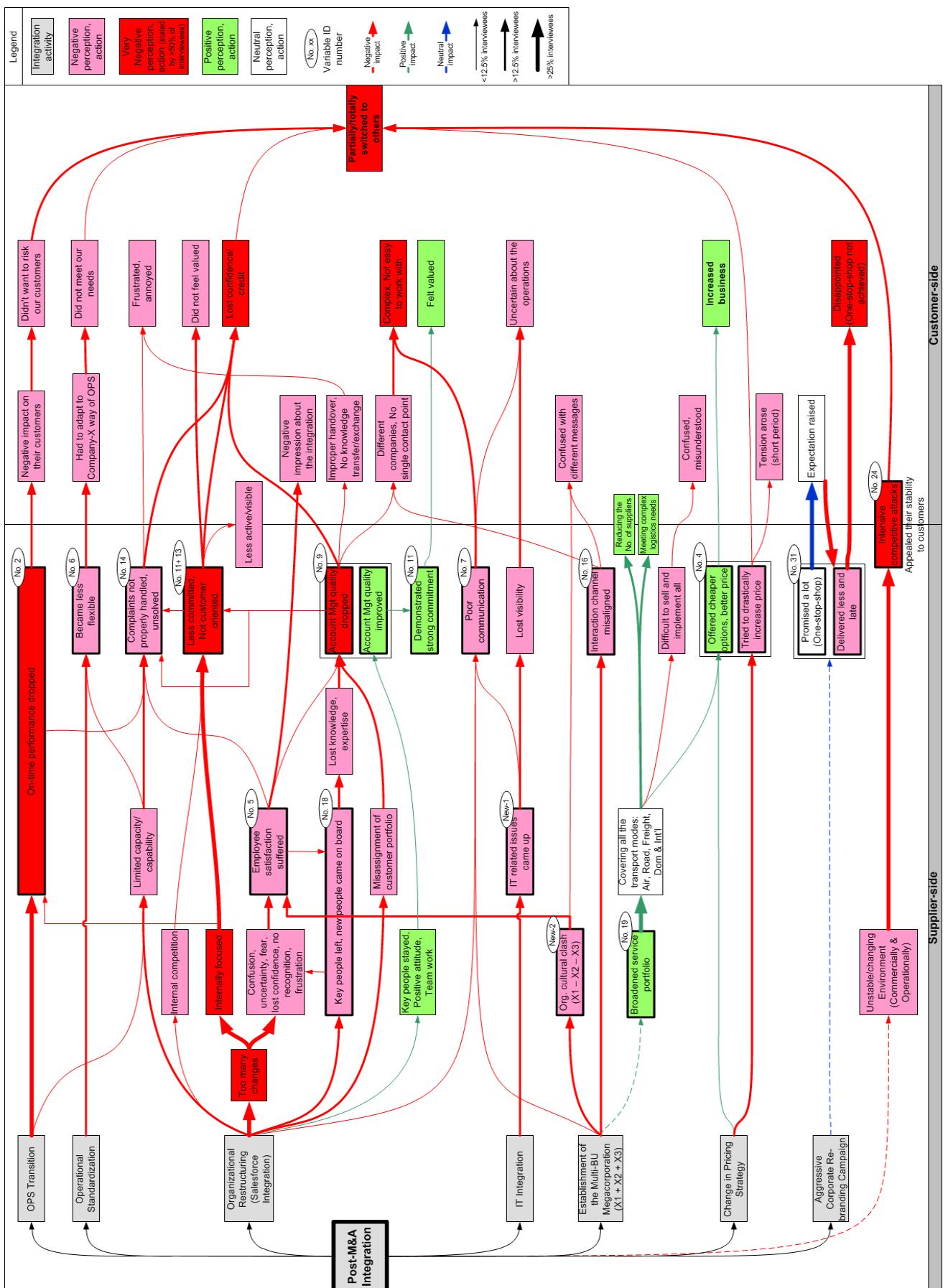
2: Service performance		ImpO	6.4	ImpA	-0.5	I x I	-3.3	P-tive	2	N-tive	9
C-2	ImpO	6									
	ImpA	-2									
CPS DK	I x I		-12								
	ToT		-4.0								
	Biz		Down								
C-9		ImpO	7								
		ImpA	-1								
		I x I	-7								
TEC BE		ToT	-1.4								
		Biz	Down								
C-10		ImpO	7								
		ImpA	-1								
		I x I	-7								
E&M NL		ToT	-0.6								
		Biz	Down								
C-11		ImpO	7								
		ImpA	-1								
		I x I	-7								
AUT BE		ToT	-1.1								
		Biz	Down								

C-13	ImpO	7	<p>...this is <u>always very important</u> for me...the <u>communication problem had a negative impact</u> on service...</p>
	ImpA	-1	
AUT BE	I x I	-7	
	ToT	-0.7	
	Biz	Down	
C-15	ImpO	7	<p>Company-X service did <u>not improve</u>. It offered <u>good prices</u> but with <u>very poor quality</u> in many places...</p>
	ImpA	-1	
LSC FR	I x I	-7	
	ToT	-0.4	
	Biz	Same	
C-16	ImpO	7	<p>Company-X2 was smaller, they were <u>physically closer</u> to us and they understood us better, <u>they knew our business</u>, the people who worked there for years, we <u>knew the people</u> it was easier... it was easier, not only in physical distance but also they were very approachable and that has finished now in a more anonymous organisation.</p>
	ImpA	-1	
CPS NL	I x I	-7	
	ToT	-1.4	
	Biz	Same	
C-18	ImpO	7	<p>Company-X was trying to connect all the different companies throughout Europe with the network... service performance was, I recall, <u>suffering</u> due to those [IT related] issues.</p>
	ImpA	-1	
TEC NL	I x I	-7	
	ToT	-0.8	
	Biz	Same	
C-5	ImpO	6	<p>...they <u>couldn't even measure their operational performance</u> of their standard services... the main problem was the operations. <u>They knew what they wanted to do</u>, such as planning of trucks, drivers, routings and whatever... <u>proper operational structure was not there</u>.</p>
	ImpA	-1	
LSC SE	I x I	-6	
	ToT	-1.3	
	Biz	Down	
C-1	ImpO	6	<p>I felt that management from Company-X2 had the say over others like Company-X1 and X3 in the Netherlands <u>due to its company size</u>. This is my perception but this had <u>negative impact</u> on Company-X1's premier service performance.</p>
	ImpA	-1	
AUT NL	I x I	-6	
	ToT	-1.8	
	Biz	Gone	
C-4	ImpO	5	<p>If you include the <u>logistics hub migration</u>, it's a bit different story. Service performance was <u>negatively impacted</u> even it was only for a week, we <u>don't accept any operational disruptions</u>, <u>on-time performance is always critical</u> for premier services.</p>
	ImpA	-1	
LSC NL	I x I	-5	
	ToT	-0.3	
	Biz	Same	
C-17	ImpO	7	<p>...we were <u>impressed</u> with Company-X1's operational performance during the integration. The <u>management changed and sales people changed</u> but the <u>performance stayed the same</u>. I think it's due to the <u>strength of the network</u> Company-X1 had.</p>
	ImpA	1	
TEC NL	I x I	7	
	ToT	-0.9	
	Biz	Same	
C-6	ImpO	6	<p>...we set up a <u>weekly performance reporting</u> and a <u>monthly operational meeting</u>... also operations from Company-X and our distribution team and compliance team, <u>everybody... was in this monthly meeting</u>... <u>what went wrong</u>, <u>why</u>, <u>what kind of actions</u> we were taking, <u>who</u> was the owner, <u>how</u> we were going to resolve this.</p>
	ImpA	2	
E&M BE	I x I	12	
	ToT	5.3	
	Biz	UP	

## Appendix O: Customer Causal Map



## **Appendix P: Consolidated Causal Map (Supplier KAM + Customer)**



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## Chapter 4

### Project-3: Empirical Research

#### **Customer Reactions and Competitive Responses to Post-M&A Integration**

— Empirical investigation in the logistics industry —

Panel Chair: Prof. Mark Jenkins

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Conducted between March 2011 and February 2012

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## ABSTRACT

The aim of this study was to test the key variables/interrelationships identified in Project-2 and build a model explaining how post-M&A integration affects customer relationships and competitive responses as well as customers' purchase intentions. Through that approach, it aimed to begin the process of generalization.

Drawing on the M&A and customer relationship literature and previous research results, a theoretical model with a set of hypotheses was developed. A questionnaire survey method was adopted and 139 usable responses from customers of merging logistics companies were collected mainly through social media (e.g. LinkedIn Groups). The collected data were then analysed using Structural Equation Modelling.

The end product of this study was a structural model indicating potential causal correlations between integration activities, customer relationship variables and competitive responses, and behavioural customer loyalty during the post-M&A period. For instance, IT system integration leads to a perceived deterioration in service performance, while overall integration actions lead to a surge in competitive responses. Furthermore, the complexity of the merger/integration and the depth of pre-merger customer relationships magnify these issues. In turn, these issues negatively influence customers' purchase intentions, with perceived deterioration in service performance acting as by far the most influential predictor.

This study contributes to the advancement of the research field by suggesting how customers and competitors respond to post-M&A integration and the mechanisms by which those responses arise, particularly within the context of the logistics industry. Contributions to practice and methodological development, as well as limitations and implications for future research, are also presented.

## I. INTRODUCTION

### 1. Aim of the Study

The aim of this study was to test the key variables/interrelationships identified in Project-2 and build a model explaining how post-M&A integration affects customer relationships and competitive responses as well as customers purchase intentions. Through a quantitative survey-based approach, it aimed to begin the process of generalization.

### 2. Background and Overall Research Problem

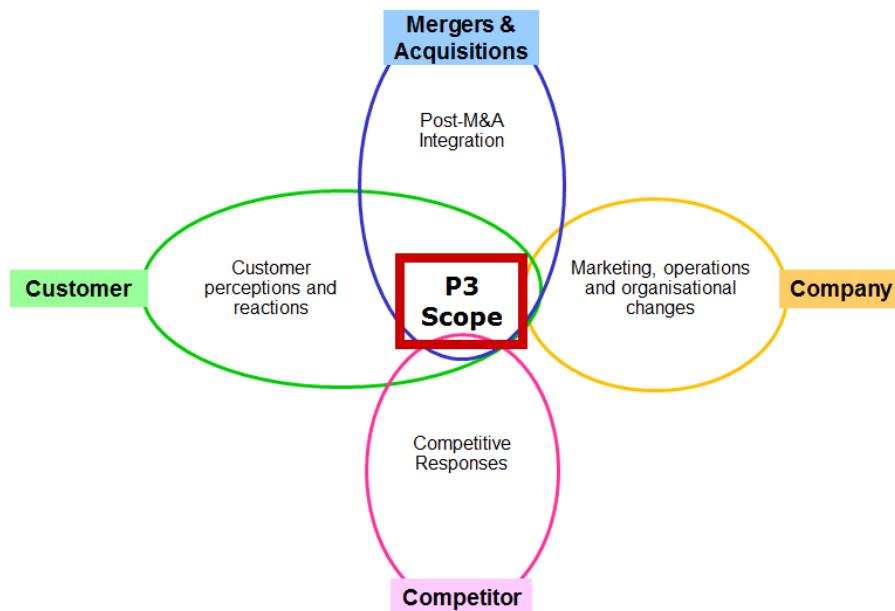
M&As' effects on customer-supplier relationships are popular topics in the practitioner journals (e.g. Bekier and Shelton, 2002; Clemente and Greenspan, 1997; Sikora, 2005); however, since they do not disclose their key research data, it is not possible to investigate or further develop their findings from an academic research point of view. In the academic arena, the topics have received almost no attention in the literature (Anderson et al., 2001; Schweiger and Very, 2003). Furthermore, even the papers that include customers and suppliers treat them as aggregates (e.g. market share) and do not investigate potential influences of M&As on them (Anderson et al., 2003a). Some scholars argue the importance of investigating the impacts of M&As on two firm's customers (Javidan et al., 2004) and the fact that market-related issues have been neglected in the literature may explain the reason why decisive factors for M&A success are still missing (Homburg and Bucerius, 2005).

As such, there have been very limited numbers of academic research papers to date that investigate customer relationship issues in the context of M&A/integration. M&A-integration and performance studies (e.g. Cording et al., 2008; Homburg and Bucerius, 2005) provide structural models assessing the link between post-M&A integration and marketing factors. The indicated causal relationships are noteworthy; however, since they do not explicitly study the customer-supplier relationship issues, one cannot know how M&A/integration impacts on customer relationships. M&A-integration and business network studies (e.g. Anderson et al., 2001; Havila and Salmi, 2000) provide deep insights on customer-supplier relationships affected by post-M&A integration. However,

since almost all of these studies are exploratory case studies, one cannot see a holistic picture of the impact of M&A/integration on customer relationships. The existing literature provides many insights but does not provide satisfactory solutions to the overall research problem — what are the key factors that drive particular customer reactions, i.e. increase or decrease business with the supplier during the post-M&A integration period in which way? The author's previous research (Project-2, a case study of multi-business mergers and integration), on the other hand, suggests a set of key actions/variables (seven integration actions and 14 customer relationship variables) that may affect customer reactions during the post-M&A integration period (**Appendix A**).

### **3. Research Field**

Considering the overall research problem and the author's previous research findings mentioned above, it was decided to define 'M&A' (post-M&A integration) and 'Customer' (customer perceptions and reactions) as the overall research domain, while 'Company' (marketing, operations and organisational changes) and 'Competitor' (competitive responses) are defined as part of the customer relationship elements. The figure below (**Ch-4 Figure 1**) highlights the research field:



**Ch-4 Figure 1: Research Field Mapping (Project-3)**

### **4. Research Question**

The following research questions were explored in this study:

- 1) What are the key factors that affect customer relationship variables during the supplier's post-M&A integration period?
- 2) What are the key customer relationship variables that influence the level of customer loyalty (i.e. decrease or increase business with the supplier) during the integration period?

## **5. Unit of Analysis**

The unit of analysis in this study is a buyer-seller relationship (from customers' points of view) during the supplier's post-M&A integration phase in a business-to-business (B2B) service context, focusing on the logistics industry. Suppliers are logistics service providers and customers are mainly (but not limited to) manufacturers that use the services — more precisely purchasing decision makers, influencers and users of the logistics services (e.g. procurement or supply chain directors). Furthermore, both an acquirer's customers and a target's customers are taken into consideration. To operationalize the designed study, the target cases were selected as follows — large logistics companies' post-M&A integration carried out within five years (i.e. between 2006 and 2011).

## **II. THEORY AND HYPOTHESIS DEVELOPMENT**

### **1. Theoretical Background and Framework**

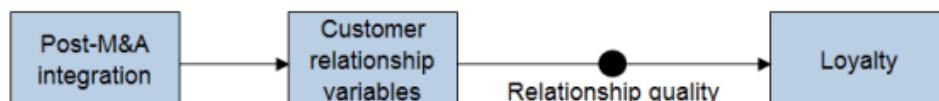
This study is based on the key findings from the author's previous research projects (Project-1: a systematic literature review of customer perception/reaction and relationship as well as Project-2: a case study of multi-business mergers and integration), which are rooted in the theory and research in customer relationship management in general and the concept of B2B 'relationship quality' and loyalty in particular.

Relationship quality is a higher order construct that contains product/service quality, customer satisfaction, customer trust and customer commitment to the supplier — overall means of assessing the relationship strength — and is positively associated with loyalty (e.g. Caceres and Paparoidamis, 2007; Rauyruen and Miller, 2007;). Loyalty, on

the other hand, is a customer's intention to maintain the relationship and repurchase (e.g. Homburg and Fürst, 2005; Lam et al., 2004; Rauyruen and Miller, 2007), which is independent from the relationship quality and directly influences business performance, e.g. share-of-wallet and market share (Heskett et al., 1994; Kamakura et al., 2002).

Project-1 highlighted the positive correlation between 1) customer relationship variables (e.g. service performance and cost) and relationship quality and 2) relationship quality and loyalty (e.g. Chumpitaz and Paparoidamis, 2004; de Ruyter et al., 2001; Doney and Cannon, 1997; Hansen et al., 2008). Project-2 indicated the impact of post-M&A integration on the customer relationship variables, which influences relationship quality and loyalty.

Based on the theory and research results above, a theoretical framework was developed for Project-3 as follows (**Ch-4 Figure 2**) — integration activities affect customer relationship variables, which as a result influences customer loyalty, or more precisely behavioural loyalty, during the post-M&A integration period. In order to reduce the complexity of the study, it was decided not to include the construct of relationship quality in this study because the most influential antecedents of relationship quality were selected from Project-2 outcome.



**Ch-4 Figure 2: Theoretical Framework**

## **2. Theoretical Model**

### **1) Integration actions**

Most studies in the field of M&A-integration and performance consider integration as a single construct (e.g. Chen et al., 2010; Cording et al., 2008; Zollo and Meier, 2008), but in practice, post-M&A integration is carried out by business function. Schweiger (2002) argues that the typical business functions are strategy, production, distribution, marketing, sales, engineering, R&D, HR, IT, legal, procurement and finance & accounting, while Gates and Very (2003) indicate in their study that around 70% of companies measure the integration progress of operations, product portfolio, people and

IT systems to assess their integration performance. The author's previous research (Project-2), on the other hand, identified eight integration actions that strongly affected customer relationship variables (**Appendix A**).

Based on the above, the four integration actions identified in Project-2 were selected for investigation in this study considering the visibility and direct impact to the customer: 1) Operational Integration (combined Operational Transition and Operational Standardization), 2) IT System Integration, 3) Marketing Integration (combined Multi-BU Establishment and Change in Pricing Strategy), and 4) Salesforce Integration (renamed from Organizational Restructuring). The Corporate Re-branding Campaign was discarded because it is not a widely recognised integration factor (not stated in any of the M&A literature) and can be considered as Project-2 case-specific, while Unstable/Changing Environment is regarded as an overall integration effect (combined effect of the four integration actions) rather than an independent factor.

To investigate the impact of integration activities, this study applied one of the measures used by Homburg and Bucerius (2005) in their study — extent of integration. According to them, the extent of integration means the level of similarity achieved between the two merging parties, and has a direct (negative) impact on market-related performance after the M&A.

## **2) Customer relationship variables**

In terms of customer relationship variables, five key variables were selected for investigation based on the 14 variables identified in Project-2 (**Appendix A**) in order to focus on a limited number of highly influential factors: 1) Service Performance, 2) Product/Service Selection, 3) Customer Orientation, 4) Account Management Quality, and 5) Competitive Response. The selection was made based on the causal map from Project-2, which indicated that four of them (service performance, customer orientation, account management quality and competitive response) were most strongly (negatively) impacted by the integration. In addition, one more variable was added — Product/Service Selection which was perceived by the Project-2 interviewees as the single most positive outcome of the integration.

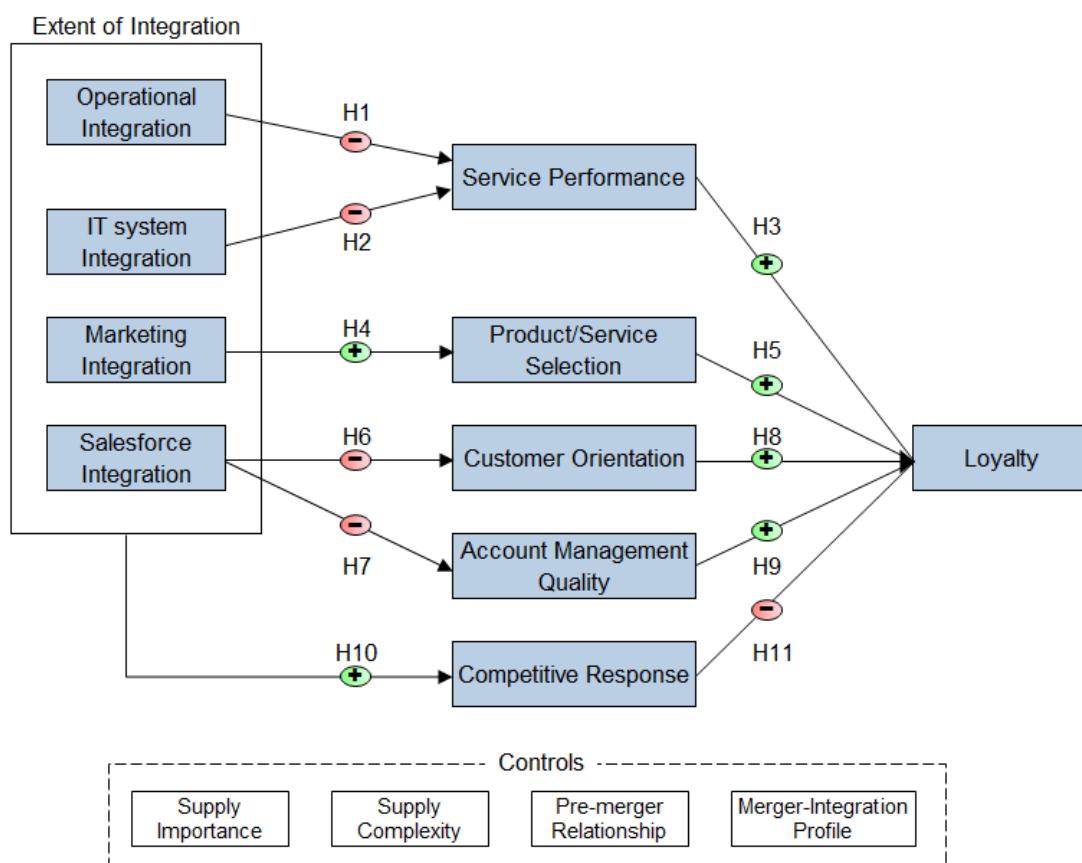
The remaining nine variables identified in Project-2 have either been collapsed into those five key constructs or discarded as case-specific to Project-2 as follows (also summarised in **Appendix B**):

- Flexibility (supplier's willingness/capability to make changes to meet customer needs) and Communication (supplier's open info-sharing about sensitive/critical issues) have been included in the higher level construct "Customer Orientation" (attitude) as questionnaire items following the study of Homburg and Stock (2004) — see **III. Measure Development**.
- Complaint Handling (regarded as a problem solving capability) and Employee Turnover (regarded as personnel continuity) have been included in the higher level construct "Account Management Quality" (capability) as questionnaire items following the study of Homburg and Rudolph (2001) and Liu and Leach (2001) — see **III. Measure Development**.
- Multi-channel Alignment (perceived cross-channel consistency) has also been included in "Account Management Quality" since it should be related to the overall account management capability — see **III. Measure Development**.
- IT Capability (regarded as operational visibility) has been included in the higher level construct "Service Performance" as a questionnaire item, considering the fact that the (transportation & logistics) service is enabled by operational IT systems.
- Employee Satisfaction (perceived job satisfaction of the supplier's frontline employees) has been discarded because it was mainly highlighted by supplier KAMs rather than customers in Project-2.
- Organisational Culture (perceived difference in merging parties' organisational culture) was identified through Project-2 interviews with customers who had well-developed relationships with both the acquirer and target. Since the target respondents in this study are customers of either an acquirer and/or a target (not necessarily both), this variable cannot be tested, therefore it has been discarded.
- Psychological Contract (perceived future tangible outcomes and inputs promised by the supplier) has been discarded because the causal map from the Project-2

indicated that this was thoroughly affected by the aggressive corporate re-branding campaign<sup>17</sup>, which can be considered as Project-2 case-specific.

### 3) The model

The figure below (**Ch-4 Figure 3**) presents an overview of the theoretical model in this study. It suggests that the extent of integration (by business function) positively or negatively influences key customer relationship variables, which in turn affect customer loyalty (i.e. behavioural loyalty, during the post-M&A integration period). The model also includes control variables (see **II.3.5) Control variables** for the details) that may have potential impacts on the causal relationships under investigation.



**Ch-4 Figure 3: Theoretical Model**

<sup>17</sup> It was a series of mass marketing campaigns to promote the “one-stop-shopping” concept (Company-Y, 2009) but most interviewees in Project-2 stated that little had actually been delivered. This gap created a negative impact on the psychological contract, which is regarded as Project-2 case-specific.

### **3. Hypothesis**

#### ***1) Operations and IT system integration***

The first set of hypotheses addresses the link between the extent of operations and IT system integration, perceived service performance and the level of customer loyalty. The basic logic is that companies engaged in horizontal M&As peruse physical consolidation to realize economies of scale/scope; however, the operational/IT system integration of two companies does not work as planned and causes serious service performance problems, which negatively influences customer loyalty.

There are arguments in the M&A literature that post-M&A is a vulnerable period when customers wonder if the combined firm can maintain the pre-M&A level of services (Haspeslagh and Jemison, 1991) and the uncertain post-M&A environment enhances customers' fears for service disruptions (Bekier and Shelton, 2002; Clemente and Greenspan, 1997; Palmatier et al., 2007). Furthermore the author's previous empirical research (Project-2) clearly indicates that the full-scale operational integration caused serious service performance issues (e.g. customers stated that the on-time delivery performance went down to an unacceptable level for over two months). Therefore:

#### **Hypothesis-1:**

High level of operational integration is related to perceived deterioration in service performance during the post-M&A integration period.

Although the integration of IT systems and that of operations are different work streams, the IT system is an integral part of service operations because transportation & logistics companies, for instance, are now required to offer sophisticated services including IT systems that can provide integrated operational visibility worldwide (Transport Intelligence, 2006). There are arguments in the M&A/IT literature that IT system integration is one of the most critical challenges after a merger, knowing the fact that business practices of IT departments are widely different and loss of the target firm's IT people may cause a serious problem of knowledge leakage/constraints about their IT systems (Harrell and Higgins, 2002) and integration of software and hardware is relatively easy but that of IT policies and organisational procedures is difficult and time consuming because it requires socialization processes (Wijnhoven et al., 2006). A case

study of a bank merger indicates that there is a delay in realizing expected synergy effects because of, among other things, IT system integration issues (Sherman and Rupert, 2006). Furthermore, McKiernan and Merali (1995) argue that urgent need for operational integration often leads to incomplete IT system integration with malfunctions, which has a detrimental effect on service quality. The author's previous research indicated that full-scale IT system integration caused IT-related issues and the organisation lost operational visibility, which made customers uncertain about its operations (e.g. customers stated that the normal operations worked but the IT systems behind them did not work properly, hence when operational problems occurred no one could trace them). Therefore:

**Hypothesis-2:**

High level of IT system integration is related to perceived deterioration in service performance during the post-M&A integration period.

In terms of the impact of a supplier's service performance on customer loyalty, the underlying knowledge can be found in the marketing literature that product/service performance is positively associated with customer satisfaction, which is positively associated with customer loyalty (Fynes and Voss, 2002; Heskett et al., 1994; Patterson et al., 1997). The M&A literature also provides evidence that integration process performance (incl. operational/IT system integration) is positively associated with customer retention (Zollo and Meier, 2008), while customer reactions (termination or enhancement of the relationships) are largely influenced by, among other things, changes in operational procedures (Tunisini and Bocconcetti, 2005). The author's previous research, on the other hand, indicated that operational disruption during the integration was one of the most prominent reasons for customers to switch to other service providers in order to avoid any negative impacts on their own customers (e.g. customers stated that they seriously considered changing their supplier and even established new business relationships with alternative suppliers due to the operational disruption). Therefore:

**Hypothesis-3:**

Perceived deterioration in service performance is related to decreased customer loyalty during the post-M&A integration period.

## **2) Marketing integration**

The second set of hypotheses addresses the link between the extent of marketing (products and services) integration, perceived breadth of product selection and the level of customer loyalty. The logic here is that companies engaged in horizontal M&As integrate both companies' products and services to extend their offerings, which positively influences customer loyalty.

The marketing literature suggests that there is a positive correlation between a supplier's product/service breadth and customer loyalty (e.g. Wathne et al., 2001), while the M&A literature highlights that revenue synergies are expected from broadened product offerings (Schweiger and Very, 2003), product-line extension results in revenue enhancement (Capron and Hulland, 1999) and customers positively perceive extended product variations (Anderson et al., 2003b). The author's previous research indicated that broadened service offerings not only helped the customers to reduce the number of suppliers but also enabled the organisation to meet its customers' complex needs or to offer cheaper options, which led to an increase in business. This was the single most positive outcome of the integration (e.g. customers stated that the organisation became more important to them and vice versa due to the extended service portfolio). Therefore:

### **Hypothesis-4:**

High level of marketing integration is related to perceived improvement in product/service selection during the post-M&A integration period.

### **Hypothesis-5:**

Perceived improvement in product/service selection is related to increased customer loyalty during the post-M&A integration period.

## **3) Salesforce integration**

The third set of hypotheses addresses the link between the extent of salesforce integration, perceived level of customer orientation (mainly attitude), perceived quality of account management (mainly capability) and the level of customer loyalty. The argument is that companies engaged in horizontal M&As integrate two companies'

salesforce to realize both cost-cutting and cross-selling; however, the integration does not work as planned and causes serious customer facing problems in terms of attitude and capability, which negatively influences customer loyalty.

There are arguments in the M&A literature that the integration of a salesforce is clearly visible to the customer, which fosters uncertainty among customers (Homburg and Bucerius, 2006), a complex integration process fosters employees' internally focused attitude with internal politics and as a result customers are ignored (Meyer, 2008) and the salesforce plays a key role in customer communication and thus when it is negatively affected (e.g. uncertainty or redundancy) or distracted by internal matters, its customers feel the negativity (Bekier and Shelton, 2002). Furthermore, Gates and Very (2003) argue that proper measurements of salesforce integration can help the merging parties to focus attention on their customers during the integration. The author's previous research indicated that full-scale salesforce integration generated, among other things, employees' internally focused attitude, internal competition, capacity/capability issues, confusion-uncertainty-frustration among sales people and lost knowledge/expertise, which directly or indirectly<sup>18</sup> affected customer orientation as well as account management quality in a very negative manner (e.g. Attitude: customers stated that all the focus was on internal things and it seemed customers were not important to them. Capability: customers stated that experienced KAM's left and were replaced by new ones who had no knowledge about their business). Therefore:

### **Hypothesis-6:**

High level of salesforce integration is related to perceived decline in customer orientation during the post-M&A integration period.

### **Hypothesis-7:**

High level of salesforce integration is related to perceived decline in account management quality during the post-M&A integration period.

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<sup>18</sup> The study implied that the level of customer orientation declined because the quality of customer service (complaint handling) and account management was damaged by the factors above (e.g. lost knowledge/expertise).

In terms of the relationship between customer orientation, account management quality and customer loyalty (or overall business performance), there is evidence in the M&A and marketing literature. Capron and Hulland (1999) found that the extent of salesforce integration is negatively associated with market share and profitability. Their study does not include any intervening variables such as customer orientation, account management quality and customer loyalty; however, the (negative) impact of salesforce integration is clearly demonstrated.

As for customer orientation, Homburg and Bucerius (2005) highlight that a high level of customer orientation mitigates the negative impact of post-M&A integration on market-related performance, i.e. market share, customer retention and return on sales. Cording et al. (2008) identified that the level of customer orientation is positively associated with market expansion performance, i.e. increase in cross-selling, new customer acquisition and market share.

As for account management quality, de Ruyter et al. (2001) demonstrate a positive correlation between account management quality and customer trust in supplier as well as customer commitment to supplier, which leads to loyalty. Whereas, Birkinshaw et al. (2001) and Workman et al. (2003) found a positive correlation between account management quality and overall business performance.

Furthermore, Dalziel (2007) identified that there is a positive relationship between the degree of value perceived by customers and overall acquisition success, while Havila and Salmi (2000) revealed in their longitudinal case study that some of the target's customers switched to other suppliers mainly because they were not convinced about the combined firm's commitment towards them and did not feel confident in their new business relationships.

The author's previous research, on the other hand, indicated that the level of customer orientation as well as the quality of account management and complaint handling dropped considerably during the integration period, which generated the customer's perception of, for instance, "did not feel valued" and "lost confidence in the relationship". The (negative) perception affected their purchasing behaviour (e.g.

customers stated that the lack of trust led to the change in supplier). The research findings above led to the following hypotheses:

**Hypothesis-8:**

Perceived decline in customer orientation is related to decreased customer loyalty during the post-M&A integration period.

**Hypothesis-9:**

Perceived decline in account management quality is related to decreased customer loyalty during the post-M&A integration period.

**4) Overall integration effect**

The final set of hypotheses addresses the link between the extent of overall integration, magnitude of competitive response and the level of customer loyalty. The logic is that companies engaged in horizontal M&As pursue the full-scale integration to realize potential synergies; however, the internal/external uncertainty raised during the integration amplifies competitive attacks, which negatively influences customer loyalty.

In terms of competitive responses, the underlying knowledge can be found in the competitive strategy literature — Porter (1980) argues that competitors quickly and strongly respond if they perceive competitive threats. Chen et al. (1992) found that when a firm's market action has a visible competitive impact on its rivals, a great number of responses are to be expected, which is also supported by Waarts (1999) in his study of new product introduction and Otero-Neira and Varela-González (2005) in their study of new product introduction, price reduction and sales promotion. Chen and Miller (1994) further advanced the findings that visibility and response difficulty of competitive moves affect the number of retaliatory responses from competitors, i.e. higher visibility and lower difficulty indicates greater responses. Their research also demonstrates that M&A is the most visible competitive move among others.

Competitive attacks during integration are well known in business practice, and are often reported in practitioner papers. The post-M&A business environment is characterized by cost-cutting activities, employee uncertainty, low levels of

morale/productivity and delayed communication with customers — the environment enhances customers' fears for service disruptions as well as competitors' attacks, which as a result causes a loss of important customers (Clemente and Greenspan, 1997). The internal issues generate perfect environments for competitive attacks, for instance, a sales pitch to customers facing potential service disruptions, aggressive price offerings and headhunting for talented people (Bekier and Shelton, 2002). There are similar arguments in the M&A literature that "*Often during mergers and acquisitions competitors attempt to disrupt the relationship between an acquirer and its customers*" (Schweiger, 2002: P233-236), "*...the best time to attack your competitor is when he is in the middle of a complex merger process. This is when his customers are neglected, his key employees are likely to leave... and this is the time when he is least likely to be able to muster a coordinated response to any form of attack*" (Meyer, 2008: P211). Furthermore, the author's previous research indicated that a commercially/operationally unstable and changing environment was created as a result of the integration, which allowed the organisation's rivals to take some customers away (e.g. account managers stated that competitors tried to use this opportunity to steal customers, not by lower price but by confusing customers with wrong information). The arguments and research findings above led to the following hypotheses:

**Hypothesis-10:**

High level of overall integration is related to an increase in competitive response during the post-M&A integration period.

**Hypothesis-11:**

An increase in competitive response is related to decreased customer loyalty during the post-M&A integration period.

**5) Control variables**

Although this study focuses on the impact of post-M&A integration activities on key customer relationship variables and customer loyalty, the following four control variables that may influence the model were added. First, the systematic literature review of customer perception/reaction and relationship (Project-1) suggested that the following variables affect customer relationships — **Supply Importance**: perceived importance of

the supply compared to other purchases (e.g. Cannon and Perreault, 1999; Patterson et al., 1997; Stock, 2005) and **Supply Complexity**: perceived complexity of the supply compared to other purchases (e.g. Cannon and Perreault, 1999; Patterson et al., 1997; Stock, 2005). Second, ‘relationship length’, the length of the customer-supplier relationship (e.g. Deshpandé and Farley, 2002; Stock, 2005) was also found to be important but considering the context of this study it was modified to **Pre-merger Relationship**, the length of the customer-supplier relationship prior to the merger/integration. Finally, following the commonly used measure in the industry (e.g. Lisch, 2009; Transport Intelligence, 2006), one more variable was added, which consists of ‘size of merger’ (transaction value, e.g. Kusewitt Jr., 1985) and ‘type of merger’ (domestic or cross-border deal, e.g. Lubatkin et al., 1998). In terms of the domestic/cross-border classification, Shimizu et al. (2004) argue that a domestic merger does not necessarily mean domestic integration, taking the example of HP and Compaq (i.e. domestic merger with cross-border integration). Considering that, the variable was re-defined as **Merger/Integration Profile** which takes merger size, merger type and integration scope (domestic or cross-border) into consideration.

### **III. MEASURE DEVELOPMENT**

#### **1. Measure Development**

The construct definition and item/scale development was guided by the marketing and M&A literature as well as findings from the author’s previous research (Project-2). The questionnaire was developed following the recommended structure, style and wording (Lietz, 2010) with past tense for most items considering the nature of this research (retrospective rather than current/future status). It was tested through pilot studies and amended based on all the feedbacks received (see **Appendix C** and **Appendix D**). A complete list of constructs, items and scales are shown in the table below (**Ch-4 Table 1** and **Ch-4 Table 2**).

**Extent of integration** is defined as the level of similarity achieved between the two merging parties (Homburg and Bucerius, 2005). The construct was adapted from their study with a reduced 3-point rating scale adapted from Schweiger and Very (2003) — 1 = No integration (functions and activities are kept independent), 2 = Partial integration

(functions and activities are coordinated or standardised but not physically consolidated), 3 = Complete integration (functions and activities of both organisations are physically consolidated into one). The four integration actions (Operational Integration, IT System Integration, Marketing Integration and Salesforce Integration) were included in this section. Considering the target respondents' potential knowledge limitation about their suppliers' integration actions, a "don't know" option was added to the scale. In terms of items for the integration actions, industry specific factors need to be considered, especially for the operational and IT integration. As stated in the Unit of Analysis section, this study focuses on the logistics industry that, in general, consists of the following three categories: Express, freight forwarding and contract logistics. Express and freight forwarding providers are engaged in domestic/international transportation services, while contract logistics providers offer warehouse and inventory management services on top of transportation services<sup>19</sup>. The items (three items each) were modified from real integration examples of the author's previous case study (Project-2) considering the industry nature above.

In order to mitigate a potential problem of **common methods bias** (i.e. asking the same respondents about both cause and effect variables), the questionnaire survey was designed to ask the respondents to specify the merger case and then validate their responses (the extent of integration) by archival data later.

**Service performance** is defined as competitiveness of the supplier's service features and reliability (Doney and Cannon, 1997). The items (three items) are a combination of those from their study and findings from the author's previous study (Project-2) to meet the purpose of this study — a comparison of the perceived service performance in the pre-M&A and post-M&A (integration) environment in the transportation & logistics industry.

The 7-point rating scale (1 = Much worse, 4 = No difference, 7 = Much better) was applied for service performance, customer orientation, account management quality and product/service selection.

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<sup>19</sup> This is based on the industry sources (Datamonitor ; Transport Intelligence)

**Product/service selection** is defined as the breadth of the supplier's product/service portfolio (Wathne et al., 2001). The items (three items) were adapted from the marketing literature (Capron and Hulland, 1999; Wathne et al., 2001), and then modified to meet the purpose of this study — a comparison of the perceived breadths of products/services in the pre-M&A and post-M&A (integration) environment.

**Customer orientation** is defined as the supplier's attitude/behaviour to 'put the customer first' and nurture the current relationship (Homburg and Stock, 2004; Kingshott, 2006; Nielson, 1998). The items (four items) are primarily based on the scales developed by Homburg and Stock (2004) and Nielson (1998) who investigated: 1) salespeople's customer orientation, 2) flexibility of the employees, 3) openness in providing information, and 4) openness to suggestions. These items were then modified to meet the purpose of this study — a comparison of the perceived level of customer orientation in the pre-M&A and post-M&A (integration) environment. As stated earlier, Flexibility (supplier's willingness/capability to make changes to meet customer needs) and Communication (supplier's open info-sharing about sensitive/critical issues) were included in this modified set of items.

**Account management quality** is defined as perceived knowledge/capability, contact quality, power and continuity of the supplier's account managers (Homburg and Rudolph, 2001; Liu and Leach, 2001). The items (four out of five items) were partially adapted from the scales developed by Homburg and Rudolph (2001) who investigated: 1) product knowledge, 2) problem-solving capability, 3) personnel continuity, and 4) frequency of visit. As stated earlier, Complaint Handling (regarded as problem solving capability) and Employee Turnover (regarded as personnel continuity) were included in this construct. Furthermore, Multi-channel Alignment (perceived cross-channel consistency) was also included as an additional item. These items were then slightly modified to meet the purpose of this study — a comparison of the perceived account management quality in the pre-M&A and post-M&A (integration) environment.

**Competitive response** is defined as rivals' reactions intending to minimize the effect of the initial actions (Otero-Neira and Varela-González, 2005). The items (three items) are a combination of those from the competitive response literature (Chen and Miller, 1994) and findings from the author's previous study (Project-2) to meet the purpose of

this study — a comparison of the magnitude of competitive attacks/responses in the pre-M&A and post-M&A (integration) environment. The 7-point rating scale (1 = Much less/worse, 4 = No difference, 7 = Much more/better) was applied.

**Customer loyalty** in general has two types of definition: behavioural loyalty and attitudinal loyalty. The former is the willingness of customers to repurchase the products/services and to maintain the relationship with the suppliers, while the latter is the level of the customers' psychological attachments and attitudinal advocacy towards the suppliers, including positive word-of-mouth and recommendations (Rauyruen and Miller, 2007). In this study the former definition (i.e. behavioural loyalty) was applied for the construct because the ultimate objective of this study was to investigate the impact of post-M&A integration on purchasing behaviours (decreasing or increasing business with the supplier). The items (four items) were adapted from the customer relationship management literature (Gounans, 2005; Money, 2004; Rauyruen and Miller, 2007) and modified to meet the purpose of this study — a comparison of the customer loyalty in the pre-M&A and post-M&A (integration) environment including that for the rivals. The 5-point rating scale (1 = Largely decreased, 3 = No difference, 5 = Largely increased) was applied.

**Post-M&A integration period** — Since the post-M&A integration period is set internally (by the suppliers) and varies by case, the target respondents (their customers) do not necessarily know the exact period of integration. In terms of the length of the integration period, Homburg and Bucerius (2005) found that over 60% of companies in their study completed their integration within one year and over 90% within two years, while Gates and Very (2003) found that companies in their study tend to focus on one to two years as their integration period. Considering the above and to avoid over complication of the survey, it was decided to define the post-M&A integration period in this study as up to two years after the M&A announcement.

Construct	Items	Scale
Extent of integration	<p>From your knowledge, to what extent were the following functions of your suppliers integrated in the first 2 years following their merger announcement?</p> <ul style="list-style-type: none"> <li>A. Operations <ul style="list-style-type: none"> <li>• Ground operations (e.g. pick-up &amp; delivery or warehouse &amp; inventory management)</li> <li>• Domestic network (i.e. air or surface line-haul transportation)</li> <li>• International network (i.e. air or surface line-haul transportation)</li> </ul> </li> <li>B. Information systems <ul style="list-style-type: none"> <li>• Operational systems (e.g. systems providing shipment status or inventory status)</li> <li>• Management reporting systems (e.g. periodical performance reporting)</li> <li>• Billing systems</li> </ul> </li> <li>C. Marketing <ul style="list-style-type: none"> <li>• Brand names</li> <li>• Products and services</li> <li>• Prices (e.g. harmonization of pricing)</li> </ul> </li> <li>D. Salesforce <ul style="list-style-type: none"> <li>• Account management</li> <li>• Sales support teams</li> <li>• Customer service</li> </ul> </li> </ul>	<p>1 = No integration, 2 = Partial integration, 3 = Complete integration</p>
Service performance	<p>How was the operational performance of your supplier on the following criteria in the first 2 years following their merger compared to that before their merger?</p> <ul style="list-style-type: none"> <li>• Speed of delivery</li> <li>• Operational reliability (e.g. "OTIF" or On Time In Full)</li> <li>• Operational visibility (e.g. visibility of your shipment status or inventory status)</li> </ul>	
Product/service selection	<p>What is your evaluation of the following aspects of the supplier's product/service offerings in the first 2 years following their merger compared to that before their merger?</p> <ul style="list-style-type: none"> <li>• Range of products/services</li> <li>• Range of solutions/value-added-services</li> <li>• Geographical coverage</li> </ul>	
Customer orientation	<p>What is your evaluation of the following aspects of your supplier's attitude/behaviour in the first 2 years following their merger compared to that before their merger?</p> <ul style="list-style-type: none"> <li>• Frontline employees' attitude to 'put the customer first'</li> <li>• Openness in providing important information</li> <li>• Openness to suggestions from your organization</li> <li>• Flexibility of their process for handling your request/order</li> </ul>	<p>1 = Much worse, 4 = No difference, 7 = Much better</p>
Account management quality	<p>What is your evaluation of the following aspects of your supplier's account management team (incl. customer service) in the first 2 years following their merger compared to that before their merger?</p> <ul style="list-style-type: none"> <li>• Product/service knowledge</li> <li>• Problem-solving capability</li> <li>• Continuity of personnel (e.g. account manager)</li> <li>• Frequency of visit to your organization</li> <li>• Consistency of information across sources (e.g. account managers, customer service agents and supplier's Web site)</li> </ul>	
Competitive response	<p>How did you perceive responses from your supplier's rivals in the first 2 years following their merger compared to that before their merger?</p> <ul style="list-style-type: none"> <li>• The number of approaches you received from the supplier's rivals</li> <li>• Aggressiveness of the approaches you received from the supplier's rivals</li> <li>• Attractiveness of the propositions (e.g. price and services) you received from the supplier's rivals</li> </ul>	<p>1 = Much less/worse, 4 = No difference, 7 = Much more/better</p>

Customer loyalty	<p>How did your organization's purchase volumes and relationships change in the first 2 years following their merger compared to that before their merger?</p> <ul style="list-style-type: none"> <li>• Purchase of products/services from the supplier</li> <li>• Purchase of products/services from the supplier's rivals [R]</li> <li>• Investment in relationship (e.g. time/effort) with the supplier</li> <li>• Investment in relationship with the supplier's rivals [R]</li> </ul>	<p>1 = Largely decreased, 3 = No change, 5 = Largely increased</p>
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**Ch-4 Table 1: Key Variables** (constructs items and scales)

### Control variables —

**Supply importance** (perceived importance of the supply compared to other purchases): The construct, items (three items) and scale were adapted from the customer relationship management literature (Cannon and Perreault, 1999; Patterson et al., 1997; Stock, 2005).

**Supply complexity** (perceived complexity of the supply compared to other purchases): The construct, items (three items) and scale were also adapted from the customer relationship management literature (Cannon and Perreault, 1999; Patterson et al., 1997; Stock, 2005).

**Pre-merger relationship** (length of the customer-supplier relationship prior to the merger/integration): Considering the unit of analysis (both acquirers' customers and targets' customers are in the scope), the construct was developed for this study. The items (two items) and scale were modified from the customer relationship management literature (e.g. Deshpandé and Farley, 2002; Stock, 2005). The survey respondents were asked to specify whether they had business relationships with the acquirer, target or both before their M&A's. This was assessed by a simple selection method — Yes/No and then selection of the length of the business relationship.

**Merger/integration profile** (merger size, merger type and integration scope): The construct was developed for this study and the items were assessed by archival data (rather than by the questionnaire) based on the merger case selected by the respondent. In terms of 'merger size', the item (transaction value) and scale were modified from the M&A literature on post-merger performance (Kusewitt Jr., 1985).

Concerning ‘merger type’ and ‘integration scope’, the items and scale were adapted from the M&A literature on cross-border mergers (Lubatkin et al., 1998).

Construct	Items	Scale
Supply importance	<p>How do you assess the importance of purchasing transportation &amp; logistics services, from the following standpoints, compared to that of other categories of goods/services purchased by your organisation?</p> <ul style="list-style-type: none"> <li>• Strategic importance</li> <li>• Financial importance</li> <li>• Operational importance</li> </ul>	1 = Much less important, 3 = No difference, 5 = Much more important
Supply complexity	<p>How do you assess the complexity of purchasing transportation &amp; logistics services, in the following areas, compared to that of other categories of goods/services purchased by your organisation?</p> <ul style="list-style-type: none"> <li>• Complexity of your needs</li> <li>• Complexity of the supplier's products/services</li> <li>• Complexity of your purchasing decision making</li> </ul>	1 = Much simpler, 3 = No difference, 5 = Much more complex
Pre-merger relationship	<ul style="list-style-type: none"> <li>• Had your organization been dealing with the ACQUIRER before their merger?</li> <li>• Had your organization been dealing with the TARGET before their merger?</li> </ul>	If YES = 1: < 1 year, 2: 1-5 years, 3: > 5 years If NO = 0
Merger-integration profile	<p><b>The items are not assessed by the questionnaire but by archival data based on selected merger cases by the respondents</b></p> <ul style="list-style-type: none"> <li>• Merger size (segmented by actual transaction value)</li> <li>• Merger type (domestic or cross-border)</li> <li>• Integration scope (domestic or cross-border)</li> </ul>	1 = Small, 2 = Mid, 3 = Large, 4 = Very large  1 = Domestic, 2 = Cross-border

**Ch-4 Table 2: Control Variables** (constructs items and scales)

## **2. Pilot Study and Design Completion**

The questionnaire was tested through the three-wave pilot study — the first pilot (**Appendix C**) with a paper version and the second/third pilots (**Appendix D**) with an online version.

## **3. Common Method Biases**

As stated in both **III.1 Measure Development** and **Appendix C**, the questionnaire survey in this study can be subject to common method biases. Podsakoff et al. (2003) describe the problems and propose techniques to control them as follows:

**[Problems]** Common method biases are one of the main sources of measurement error. By applying the method that is designed to obtain both predictor and criterion variables from the same sources (e.g. questionnaire respondents), there is a risk of

reporting artifactual correlations. Potential sources of common method biases are, among other things, 1) consistency motif (respondents' tendency to try to maintain consistency in their responses to similar questions), 2) implicit theories (respondents' assumption of the relationship between two constructs) and 3) common scale format/anchors (consistent responses driven by the consistency in the scale format/anchors).

**[Remedies]** In their paper, both procedural and statistical remedies are proposed. Their procedural remedies are, among other things, 1) to obtain predictor and criterion variables from different sources, 2) to separate the measurement of predictor and criterion variables, 3) to counterbalance the order of the measurement of predictor and criterion variables, and 4) to use different scale endpoints and formats for the measurement of predictor and criterion variables.

The questionnaire design was amended and specific actions were put in place following their suggested remedies:

- Separated and changed the order of the measurement of predictor and criterion variables — moved “Extent of integration” to after “Importance/complexity of purchase” and separated “Loyalty” into a different section.
- Differentiated scale endpoints and formats for the measurement of predictor and criterion variables — changed the scale (7-point to 3-point) for “Extent of integration” and changed the format for the rest.
- Validated responses for the extent of integration by archival data and/or expert interviews (as already stated in **III. Measure Development**).
- Conducted a proposed statistical remedy once the target data were collected (see **V.1.3) Data Assessment**).

Based on the pilot studies (including the suggested remedies for common method biases), the questionnaire was finalized and posted online (**Appendix E**) utilizing the **SurveyMonkey** ([www.surveymonkey.com](http://www.surveymonkey.com)).

## IV. DATA COLLECTION

### 1. Overview

In order to systematically investigate the theoretical model and hypotheses, it was decided to apply Structural Equation Modelling (SEM) as the data analysis method, which requires a relatively large sample size (see **V.3.2)B. Sample size**). Therefore, it is critical to access a large pool of target respondents (professionals).

As stated in the Unit of Analysis section, the target samples (customers) in this study are purchasing decision makers, influencers and users of the transportation & logistics services (e.g. procurement or supply chain directors), while the target cases are large<sup>20</sup> transportation & logistics companies' post-M&A integration carried out within the last five years. Since the post-M&A integration period is defined as one to two years (up to two years) after the announcement, the target M&As should be deals announced between 2005 and 2010. The M&A deals were selected from multiple sources (Lisch, 2009; PricewaterhouseCoopers, 2007-2010; Transport Intelligence, 2006) and summarised as Transportation & Logistics Merger File (**Appendix F**), which shows 14 large acquirers with 30 deals. The target respondents were asked to select one merger case from the list for investigation.

### 2. Sampling Method

In order to select the sampling method best suited to this study, two groups of previous studies (sharing similar features to this study) have been investigated. The first group is the M&A-integration and performance studies applying Structural Equation Modelling as their data analysis method (e.g. Cording et al., 2008; Homburg and Bucerius, 2005). The applied sampling method is to select particular M&A cases by year and country, screen out some unsuitable cases and then approach the entire sample (key employees of acquirers and targets). Considering the robust sampling method, the findings can be generalised (at least for the particular years and countries). However, this method cannot include 'customers' in the same way, unless researchers can obtain customer contact lists from all the sample companies (which would be unrealistic). The

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<sup>20</sup> This is based on the industry sources (Datamonitor; Transport Intelligence)

second group is the M&A-integration and business network studies (e.g. Anderson et al., 2001; Havila and Salmi, 2000; Öberg, 2008), which is an undeveloped research area with a limited number of academic studies to date. The studies in this group include 'customers' as well as key employees of acquirers and targets, applying a qualitative case study approach. They are exploratory in nature and little attention is given to their sampling method. One possible reason for this is that it is very difficult to identify the pool of target professionals (e.g. supply chain managers who have experienced their logistics suppliers' mergers).

In terms of sampling, there are, in general, two types of method: 1) probability or representative sampling for explanatory study and 2) non-probability or judgemental sampling for exploratory study (Saunders et al., 2007). Considering the research objective, the situation above and resource limitation, there was no choice but to apply the non-probability sampling method in this study — either purposive sampling<sup>21</sup> or a combination of purposive sampling and self-selection sampling<sup>22</sup>.

### **3. Data Collection Method**

#### **1) Overview**

As stated earlier, the primary aim of this study was to test some of the key variables identified in the previous case study and begin the process of generalization. To achieve the aim, it is crucial to identify the pool of target professionals (i.e. customers of the merging firms), which was the hardest challenge in this study. To clarify, the survey targets have to be those who meet the following two criteria:

- Purchasing decision makers, influencers and users of the transportation & logistics services (e.g. managers/directors/VP's of procurement, supply chain or logistics).
- The professionals above who experienced (and clearly remember) their transportation & logistics suppliers' post-M&A integration within the past five years (i.e. between 2006 and 2011).

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<sup>21</sup> A method to use researcher's judgement to select cases (individuals) to answer his/her research questions (Saunders et al., 2007).

<sup>22</sup> A method to advertise the research through appropriate media and collect data from those who respond (Saunders et al., 2007).

Since there was no database available satisfying the above two criteria (based on the author's Internet search), it was decided to approach groups of professionals (e.g. supply chain managers) and invite them to participate in the survey if they have had experience of their logistics suppliers' post-M&A integration.

There are at least two possible ways to approach the target groups of professionals — 1) run a joint research project with an industry/functional association, asking its members to participate in the survey or 2) gain access to a member-led industry/functional community and directly invite its members to participate in the survey.

For the first option, the author contacted three well-known organisations, Supply Chain Council (SCC) and Procurement Leaders, as well as Cranfield Management Association (CMA), asking for research opportunities with them. Unfortunately the first two organisations rejected the request.

For the second option, the most popular and accessible data sources can be found in the social media. Nicholas and Rowlands (2011) investigated the use of social media in the academic research workflow, grouping them into the following eight categories — Social networking (e.g. Facebook, LinkedIn), Blogging (e.g. Twitter), Collaborative authoring (e.g. Google Docs), Social tagging & bookmarking (e.g. delicious.com), Scheduling & meeting tools (e.g. Google Calendar), Conferencing (e.g. Skype) and Image or video sharing (e.g. YouTube). Their study revealed that the most popular tool in research is Collaborative authoring followed by Conferencing and Scheduling & meeting tools, while Social networking (e.g. Facebook, LinkedIn) is mainly used for identifying research opportunities and sharing research findings (not for data collection). On the other hand, Casteleyn et al. (2009) conducted an exploratory market research using Facebook for qualitative data collection, while Weiss (2010), from a practitioner's viewpoint, claims the advantages of using social networking sites, especially LinkedIn, for qualitative and quantitative data collection through online survey techniques.

## 2) Selected data sources

In order to access as many qualified pools of target professionals as possible, the following data sources were selected in this study (see **Appendix G** for the overall membership data):

### A. Cranfield Management Association (CMA) (purposive sampling)

The Cranfield University alumni database (CMA database) consists of 15,000+ members including alumni of the MSc in Logistics. A list of 423 relevant members has been extracted for this study through the members' current job titles (i.e. procurement manager/director/VP, supply chain manager/director/VP or logistics manager/director/VP). The sample size is limited but the members can be directly contacted through email by a CMA administrator. Furthermore, in order to ensure the author's research activities are fully recognised within the university, the questionnaire was also posted on the Cranfield School of Management website, "Opportunities to get involved" (<http://www.som.cranfield.ac.uk>).

### B. LinkedIn Groups (purposive and self-selection sampling)

LinkedIn is one of the largest social networking sites with 120 million registered members<sup>23</sup> worldwide (44% in the US and 56% in the rest of the world), focused on professional networking. Within LinkedIn, there is a variety of industry expert groups — groups of people who share common interests. In terms of procurement, supply chain and logistics, there are over 3,000 discussion groups, out of which 20 groups were selected, by considering their group size. Among others, the following five groups have a distinctively large memberships (as of 11<sup>th</sup> September 2011):

- Procurement Professionals (Supply Chain & Sourcing): 105,916 members
- Logistics & Supply Chain Networking: 48,257 members
- Supply Chain Today: 46,494 members
- Supply Chain Management Group: 34,730 members
- Strategic Sourcing & Procurement: 32,408 members

### C. LinkedIn Questions & Answers (self-selection sampling)

This is a function for questions and answers within LinkedIn, with 21 categories (e.g. Business Operations) and sub-categories (e.g. Supply Chain Management),

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<sup>23</sup> As at August 4, 2011 (Source: About us, LinkedIn)

which is open for all the LinkedIn members. One can post a questionnaire using this site although there is no “push” function (e.g. email alert to the members).

#### **D. Facebook Groups** (purposive and self-selection sampling)

Facebook is one of the largest social networking sites with 800 million users<sup>24</sup> worldwide, focused on personal networking. However, unlike LinkedIn, there are very limited numbers of active discussion groups concerning procurement, supply chain and logistics in Facebook. Supply Chain Management Professionals (3,628 members) and Supply Chain Group (1,873 members) are the active groups (as at 11<sup>th</sup> September 2011).

#### **E. Google Groups** (purposive and self-selection sampling)

Google Groups provide a social networking function at Google, the largest Internet search engine in the world. There is only one active discussion group with a relatively large membership concerning procurement, supply chain and logistics in Google — Logistics & Supply Chain Discussion (619 members, as at 11<sup>th</sup> September 2011). Discussions at Google Groups are managed by mailing list as well as online discussion sites.

#### **F. Yahoo Groups** (purposive and self-selection sampling)

Yahoo Groups provide a social networking function at Yahoo, the second largest Internet search engine in the world. There are some discussion groups concerning procurement, supply chain and logistics in Yahoo. Supply Chain management Group (2,085 members, as at 11<sup>th</sup> September 2011) was selected by considering its size and activities. Discussions at Yahoo Groups are managed by mailing list as well as online discussion sites (same concept as Google Groups).

### **3) Multiple data sourcing and consolidation**

After usable survey data reached the required number of samples as a whole (see **V.3.2B. Sample size**), all the data from different sources (CMA database, Cranfield SoM website, 20 LinkedIn groups, LinkedIn Q&A, two Facebook groups, Google group and Yahoo group) were consolidated into one data sheet. The consolidated data were

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<sup>24</sup> Source: *LA Times*. September 22, 2011.

then subject to the assessment of non-response bias as well as cross-data-source bias. Furthermore, as stated in **III.1. Measure Development**, responses for 'the extent of integration' (Section-6 in the survey) were validated by archival data based on merger cases selected by the respondents.

#### **4. Survey Administration**

As stated above, usage of social media for data collection is quite new in the academic research arena, thus there is no literature to follow in terms of data collection administration at this point in time. The following is a summary of identified key challenges and practical actions taken to make the best use of the selected social networking sites.

##### ***1) Key challenges***

The aggregated membership of the groups at LinkedIn, Facebook, Google and Yahoo is huge (almost half a million) but it is apparent that there are duplications in the membership (i.e. one person belongs to multiple groups) and not all the members are active in responding to online group discussions. The key challenges for data collection can be summarised as follows. First, the members in the social networking sites cannot be contacted directly unless they are already connected friends. Hence, what can be done is to post a discussion (i.e. invitation to the questionnaire) on the group discussion sites and wait for someone to read the author's discussion and respond (i.e. open the questionnaire and complete it). Second, there is a function in the LinkedIn Groups to automatically notify members when new discussions and/or updates are made, which is done by email on a daily or weekly basis, depending on each member's preferred set-up. This function can be a great help but there are two potential issues: 1) the daily/weekly update from popular groups contains a long list of discussions (e.g. sometime over 50) and 2) the group members can select an option of not receiving the notification email. In both cases, it is hard or impossible to notify the target audiences through this function. Third, the group members are expected to visit the online group discussion site frequently, thus the message should be noticed by them. But in practice, there is absolutely no guarantee that most members are visiting the site constantly. Some may visit the site every day or every week but others may do it just on an ad hoc basis.

Finally, attention from the group members can be granted if the discussion is posted in the first page. However, the selected 20 groups in LinkedIn, for instance, are very active and discussions that are older than three-five days are even moved to unnoticeable archival folders.

## **2) Actual administration**

Practical examples of questionnaire posting are shown in **Appendix H** for LinkedIn Groups as well as in **Appendix I** for LinkedIn Q&A, Facebook Groups and Google/Yahoo Groups. In addition to the selected social networking sites, the author also tested Twitter (one of the largest blogging sites in the world) as a data collection medium for a couple of weeks. However, due to the fact that it requires real-time administration (not suitable for a part-time research student) and responses for survey requests were very low (nil for two weeks), it was decided not to use Twitter in this study.

To overcome the challenges and make sure that the author's messages were noticed by as many target members as possible, the following actions were executed:

- Linked each networking site with a particular SurveyMonkey address by a unique survey ID, and traced the number of responses by site. For instance, the following SurveyMonkey address (ID = a) was assigned to "Procurement Professionals" on LinkedIn: [https://www.surveymonkey.com/s/Cranfield\\_JKato\\_a](https://www.surveymonkey.com/s/Cranfield_JKato_a)
- Updated the author's message constantly (i.e. twice a week) unless the previous message remained in the first page of the group discussion site.
- Monitored each discussion site regularly (e.g. once a day) and immediately responded to any comments on the author's discussion.
- Used a different discussion title for every update in order to make it 'something new' for the members. Furthermore, showed the number of responses needed at the later stage in order to motivate potential respondents, for instance:
  - Wave-1: Could you participate in my doctoral research questionnaire about logistics M&As?
  - Wave-5: Your voice is needed for my study on logistics M&As.
  - Wave-10: My doctoral survey needs 65 more participants. Could you participate if you're the ones who experienced logistics supplier's M&As?

- Wave-15: [Final Call] Would you be one of the last 5 participants in my doctoral survey on logistics mergers?

As shown in the table below (**Ch-4 Table 3**), the initial posting was made mainly between 10<sup>th</sup> and 12<sup>th</sup> September 2011 (wave-1, highlighted in dark-blue). Since then, a regular update was made (twice a week) from 14<sup>th</sup> September to 4<sup>th</sup> November (wave 2-15, highlighted in light-blue) for all the LinkedIn discussion sites, while irregular/limited updates were made for LinkedIn Q&A as well as Facebook, Google and Yahoo Groups because the author's message remained in their first page for weeks. In terms of the CMA database, no update (reminder) was made because many members claimed that they were not in a position to participate in the questionnaire, according to the CMA administrator. The university website "Opportunities to get involved" is a static site, thus no update was made.

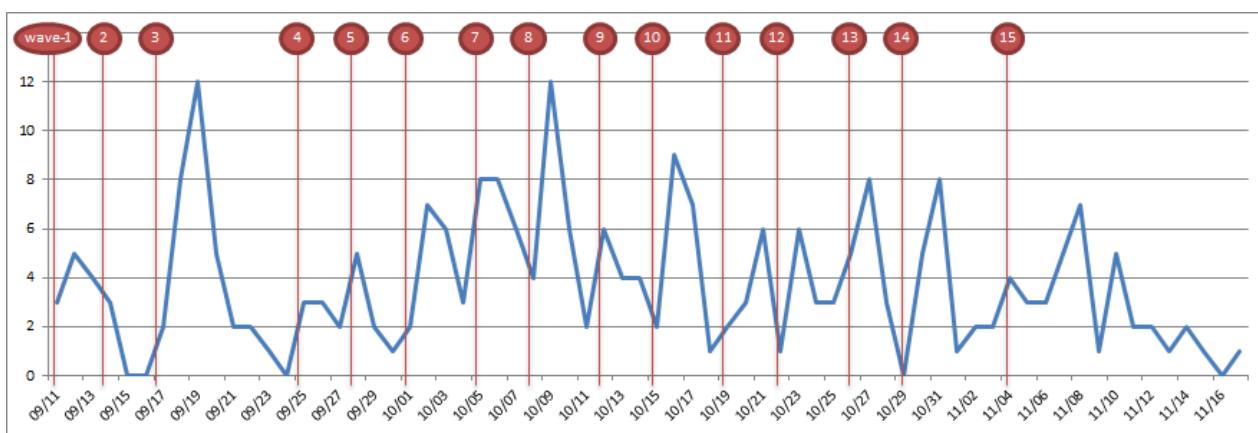
Group	Wave-1	Wave-2	Wave-3	Wave-4	Wave-5	Wave-6	Wave-7	Wave-8	Wave-9	Wave-10	Wave-11	Wave-12	Wave-13	Wave-14	Wave-15
LinkedIn Groups (20)	10-Sep	14-Sep	17-Sep	25-Sep	28-Sep	1-Oct	5-Oct	8-Oct	12-Oct	15-Oct	19-Oct	22-Oct	26-Oct	29-Oct	4-Nov
LinkedIn Q&A	11-Sep	---	---	---	28-Sep	---	---	---	---	15-Oct	---	---	---	---	---
Facebook Groups (2)	11-Sep	---	---	---	---	---	---	---	---	---	---	---	---	29-Oct	---
Google Groups (1)	11-Sep	---	---	25-Sep	---	1-Oct	---	---	---	---	---	---	---	29-Oct	---
Yahoo Groups (1)	11-Sep	---	---	25-Sep	---	1-Oct	---	---	---	---	---	---	---	29-Oct	---
CMA database	12-Sep	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Opportunities to get involved	---	---	---	---	29-Sep	---	---	---	---	---	---	---	---	---	---

**Ch-4 Table 3: Questionnaire Posting & Follow-up Actions**

Initially, it was targeted to obtain 200 to 400 samples through this data collection method in order to meet the basic criteria of the covariance-based structural equation modelling (Statistics Solutions). However, it became apparent after several weeks of survey administration that the target sample number was too high to achieve. Actually, the average number of daily responses was as low as four, of which about half was almost empty. This low response could be due to the very specific survey target criterion (i.e. supply chain professionals who have experienced their logistics suppliers' mergers within the past five years) rather than the effectiveness of social media for data collection. For instance, a respondent explained "*I would really want to help. But, in the past 5 years our logistics provider did not go through any M&A activity.*"

Considering the above, it was decided to target 100 as the minimum number of usable samples to meet the basic criteria of the variance-based structural equation modelling (see **V.3.2)B. Sample size**).

The figure below (**Ch-4 Figure 4**) illustrates the number of responses per day and the impact of the regular update on the responses. On average, the number of daily responses was 3.8 but it went up to 5.4 for the first day and 5.1 for the first two days after each update. This fact demonstrates the importance of regular updates when using social media for data collection.



Note: The BLUE line shows the number of responses per day and the RED line shows the date of each update

**Ch-4 Figure 4: Number of Responses per Day**

## 5. Collected Data

The data in this study were collected using the online survey tool SurveyMonkey ([www.surveymonkey.com](http://www.surveymonkey.com)) between 11<sup>th</sup> September 2011 and 17<sup>th</sup> November 2011 (68 days), which resulted in 255 responses. 116 responses were eliminated because key data were missing, thus the final usable data set is 139. As shown in the table below (**Ch-4 Table 4**), the majority of the data have been captured through LinkedIn followed by Cranfield sources. This fact clearly indicates that LinkedIn is better suited to this type of business-oriented academic survey over other social media (see the detailed data breakdown in **Appendix J**).

Site	( a ) No. of Members	( b ) Total Responses	( c ) Usable Responses	( c/b ) Completion Rate	(b/a ) # Responses / # Members
LinkedIn	404,097	233	127	55%	0.1% *
Cranfield	423	12	8	67%	2.4%
Google Group	619	4	2	50%	0.6%
Facebook	5,501	3	1	33%	0.1%
Yahoo Group	2,085	3	1	33%	0.1%
<b>Total:</b>	<b>412,725</b>	<b>255</b>	<b>139</b>	<b>55%</b>	<b>0.1% *</b>

\* The ratio (# respondents / # members) excludes the open sites without member information

**Ch-4 Table 4: Survey Responses by Data Source**

The response rate of the social media cannot be properly calculated due to the self-selecting nature of the sampling, while that of the selected list from the Cranfield University alumni (CMA) database can be done. The former was 0.1% (indicative rate<sup>25</sup>) and the latter was 2.4%, which is remarkably low compared to other M&A studies (e.g. 18% in Homburg and Bucerius, 2005 and 36% in Cording et al., 2008). Furthermore, the overall survey completion rate (the number of usable responses divided by the total number of responses) was as low as 55%. The difficulty in obtaining primary customer data may be one of the reasons for the fact that the research in customer responses to M&A remains under developed (Schweiger and Very, 2003). In this study, those low response/completion rates were already anticipated at the research design phase considering the following strict survey target criteria — Purchasing decision makers, influencers and users of the transportation & logistics services, who experienced their transportation & logistics suppliers' post-M&A integration within past five years. As already mentioned, one of the respondents commented: "*I would really want to help. But, in the past 5 years our logistics provider did not go through any M&A activity...*"

The profile of the survey respondents is shown in **Appendix K**. It indicates a good mix of industries, company sizes (large enterprises and SMEs), regions and roles<sup>26</sup> (decision makers, influencers and users), although it is slightly skewed to the logistics

<sup>25</sup> Indicative response rate of the social media = 243 / 412,302 = 0.1%

<sup>26</sup> Most of them declared themselves as 'purchasing decision makers', 'influencers' or 'users' but 20 of them selected their job role as 'other'. Since 'other' is outside the sample criteria, the impact of such data was examined by comparing with and without the data. The test did not indicate any statistically significant differences, therefore, the author decided to keep them in his data set.

industry (accounting for 29% of all the industries) and Asia Pacific (accounting for 37% of the world). In terms of merger cases, 26 cases were selected out of the provided list of 30 and 17 cases were added by the respondents, hence the data in this study contain 43 merger cases (see **Ch-4 Table 5** for the top-10 cases). As expected, the cross-border mega mergers were selected by many respondents, for instance, DP-DHL – Exel (6.7 billion USD), A.P. Moeller – P&O Nedlloyd (3.0 billion USD) and Ceva – EGL (2.2 billion USD).

The population of this study was not readily available, thus it was roughly estimated through the following assumptions. 1) Customers of target organisations and acquirer divisions may need to be considered, 2) Post-merger integration may mainly affect their key customers (e.g. top 10%), 3) Each customer organisation may have three key persons (e.g. a purchasing decision maker, an influencer and a representative of users) who assess their suppliers' performance during their integration period. Based on these assumptions, the pre-merger data (i.e. revenues and number of customers) of the top-10 merger cases were analysed (see **Appendix L**). The simulation roughly estimated the study population as 221,000, indicating a sample representativeness of 0.1%.

Acquirer	Country	Target	Country	No. of Resp.
Deutsche Post DHL	Germany	Exel	UK + world	19
Ceva	UK	EGL (Eagle Global Logistics)	USA + world	15
DB Schenker	Germany	BAX Global	USA + world	15
A.P. Moeller-Maersk	Denmark	P&O Nedlloyd	UK-NL + world	9
Deutsche Post DHL	Germany	Blue Dart	India	8
UPS	USA	Overnite Corp.	USA	8
A.P. Moeller-Maersk	Denmark	Damco Sea & Air	NL + world	6
Ryder Systems	USA	Total Logistic Control (TLC)	USA	5
C.H. Robinson Worldwide	USA	LXSI Services	USA	4
UPS	USA	Menlo Worldwide Forwarding	USA + world	4
				Sub-total
				93
				Grand Total
				139

**Ch-4 Table 5: Top-10 Merger Cases** (selected by the respondents)

The selected merger cases were classified by the size and type of the merger as well as the geographic scope of post-merger integration (**Ch-4 Table 6**), referring to the merger file in this study (**Appendix F**). This data set was used to assess one of the

control variables ‘Merger/Integration Profile’. Furthermore, as stated in the Unit of Analysis section, both an acquirer’s customers and a target’s customers are within the scope of this study. The table below (**Ch-4 Table 7**) shows that the collected data satisfy the criterion.

Merger Size (transaction in \$ mil)	No. cases	Merger Type	No. cases	Implementation Scope	No. cases
> 3,000	37	Cross-border	98	International	84
3,000 - 1,000	39	Domestic	27	Domestic	41
1,000 - 500	8	n/a	14	n/a	14
< 500	38	Total	139	Total	139
n/a	17				
Total	139				

**Ch-4 Table 6: Merger/Integration Profile**

Pre-merger relationship	
Acquirer only	16%
Target only	28%
Acquirer and Target	55%

**Ch-4 Table 7: Pre-Merger Relationship** (excl. blank answers)

## V. DATA ANALYSIS

### 1. Data Assessment

The collected data were assessed in terms of non-response bias, cross-data-source bias and common method bias as well as other considerations.

#### 1) **Non-response bias**

Following the traditional approach conducted by many researchers (e.g. Homburg and Bucerius, 2005), non-response bias was tested by applying the recommended technique (Armstrong and Overton, 1997), i.e. to compare groups of early and late respondents. A two-tailed independent t-test of the variances in the two groups was performed (**Appendix M**). Furthermore, since the collected data are slightly skewed to the logistics industry (accounting for 29% of all the industries) and Asia Pacific region

(accounting for 37% of the world), additional t-tests were performed — 1) Logistics industry versus rest of the industries and 2) Asia Pacific versus rest of the regions. Results of the tests indicate that the group differences are not statistically significant; however, considering the indicative yet extremely low response rate of 0.1%, it cannot reject the existence of non-respondent bias in the data set.

## **2) Cross-data-source bias**

As shown in **Appendix J**, the actual/usable data in this study consist of multiple sources — CMA database, Cranfield SoM website, 17 LinkedIn groups, LinkedIn Q&A, Facebook group and Google group. Therefore, it was felt advisable to assess if there is a systematic difference among the data sources. Considering the fact that there are 22 sources with small data sets each, the two-tailed independent t-test was performed for 1) the data from traditional media (CMA database, 7 samples) versus that from social media (132 samples) and 2) the data from the largest contributor (“Logistics Executive” at LinkedIn, 24 samples) versus that from rest of social media (108 samples). Results of both tests indicate that the group differences are not statistically significant at 0.05 level, thus cross-data-source bias does not appear to be a problem in the data set.

## **3) Common method bias**

As stated earlier, it is suggested to obtain predictor and criterion variables from different sources to mitigate possible common method bias (Podsakoff et al., 2003). In this study, it was planned to validate survey responses for the predictor variables (i.e. the extent of integration) by archival data. To do this validation, the top-10 merger cases (representing approximately 70% of all the cases) were analysed through archival data, namely the companies’ annual reports, their public websites and industry sources. As shown in **Appendix N**, the survey respondents’ perceptions were supported by the archival data in almost all the cases. This implies that the survey respondents could (relatively) accurately assess the extent of integration by function, even though post-M&A integration activities are, in general, perceived to be internal matters. Furthermore, despite the fact that there was a “don’t know” option available, particularly for the extent of integration questions, the completion rate of those questions was relatively high (82%) compared to that of entire questions (90%), which implies the respondents’ confidence in their knowledge on selected merger cases. The above provides evidence that the

predictor variables (the extent of integration) are not driven by the remaining criterion variables in this study.

Furthermore, correlations between the latent variables were investigated, focusing on those between the perceived integration actions (see **Appendix O**). As expected, they are somewhat correlated (up to  $r = 0.657$ ) but not as high as 0.9 which would indicate a serious collinearity problem (Johnson, 2010).

Finally, a statistical remedy (single-common-method-factor approach<sup>27</sup>) proposed by Podsakoff et al. (2003) was also conducted to test the potential influence of common method bias. The test did not report any significant differences, thus it provides the final evidence that common method bias does not appear to be a problem in this study.

#### **4) Other considerations – Merger/Integration Profile (control variable)**

In terms of the item ‘merger size’, it may be common to apply the measure of ‘relative size’ (relative size of the acquired firm compared to that of the acquiring firm) in the M&A studies as this is thought to be a proxy of the scale of the merger/integration tasks (e.g. Cording et al., 2008; Homburg and Bucerius, 2005;). However, it was decided to use the measure ‘actual transaction value’ applied by Kusewitt Jr. (1985), which is considered to be a better indicator for the scale of the merger/integration tasks, mainly considering the following cases in this study (see **Appendix F** and **Appendix L**):

- DP-DHL – Exel merger: When the ‘relative size’ measure is applied and their corporate revenues are compared ( $\text{£}6.3\text{bn} / \text{€}44.6\text{bn} = 19\%$ ), this largest merger in the industry is classified as a relatively small merger.
- DP-DHL – Blue Dart merger: When the ‘relative size’ measure is applied and their divisional revenues are compared ( $\$100\text{m} / \text{€}80\text{m} = 83\%$ ), this small/local merger is classified as a relatively large merger.
- DB Schenker – BAX Global merger: When the ‘relative size’ measure is applied, regardless of the comparison method (corporate or divisional revenues,  $\$2.4\text{bn} / \text{€}8.0\text{bn} = 20\%$ ), this, one of the largest mergers, is classified as a relatively small merger.

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<sup>27</sup> This approach is to add a first-order factor with all measures as indicators and assess the significance of the structural parameters, both with and without the indicators (Podsakoff et al., 2003).

Furthermore, one may argue that the construct ‘Merger/Integration Profile’ should be separated between ‘merger size’ and ‘merger type/implementation scope’. However, it was decided not to do so based on the following reasons:

- The three items ('merger size', 'merger type' and 'implementation scope') are strongly related and strongly reflect variation in the construct — see the high composite reliability and item reliability scores in **Appendix P**.
- An assessment of the path coefficients for both the one combined construct and the separated constructs did not indicate any significant differences.

## **2. Preliminary Data Analysis**

Prior to the main data analysis section, a preliminary data analysis was carried out for each variable — descriptive statistics of all the variables (see **Appendix P**) and box-plot graphs of the key customer relationship variables (see **Appendix Q**). It is indicated that the recent mergers in the logistics industry, in general, had no major impact on perceived changes in service performance (overall mean = 3.98 in the 7-1 rating), customer orientation (3.86) and account management quality (3.93). However, the mergers were perceived to have broadened product/service selection (4.97) and at the same time enhanced competitive response (4.67), which in turn led to a slight decrease in customer loyalty (overall mean = 2.83 in the 5-1 rating).

## **3. Data Analysis Method**

Historically, researchers used regression-based techniques and/or factor/cluster analysis (first-generation techniques) to test their hypotheses, which have the following three limitations (Haenlein and Kaplan, 2004): 1) only a simple model structure can be in scope, 2) only observed variables can be analysed, and 3) they assume that all variables are measured without error. Structural equation modelling (SEM, a second-generation technique), on the other hand, allows simultaneous modelling of relationships among multiple variables as well as assessment of unobserved variables in the model and measurement errors for observed variables, thus it enables researchers to overcome the first-generation techniques’ limitations (Haenlein and Kaplan, 2004). Furthermore, it provides flexibility to statistically test theories and hypotheses against

empirical data (Chin, 1998). It is even claimed that “SEM has become a quasi-standard in marketing and management research when it comes to analysing the cause-effect relationships between latent constructs” (Hair et al., 2011: P139).

Considering the research objective and research setting (i.e. to test the theoretical model through simultaneous modelling of relationships among multiple latent variables), it should be reasonable to select SEM as the data analysis method.

### **1) Covariance-based SEM and variance-based SEM**

There are, in general, two types of method in SEM — 1) covariance-based SEM (e.g. LISREL) that focuses on minimizing the difference between sample covariance and that predicted by a theoretical model, and 2) variance-based SEM (e.g. PLS) that focuses on maximizing the variance of dependent variables and independent variables (Haenlein and Kaplan, 2004). The former method was developed by K. Joreskog in 1973, W. Keesling in 1972 and D. Wiley in 1973, and was initially known as the JKW model but has become known as the Linear Structural Relations model (LISREL) since the release of its first software program LISREL in 1973 (Schumacker and Lomax, 2004). The latter method (PLS) was introduced by H. Wold in 1975 under the name of Nonlinear Interactive Partial Least Squares, or NIPALS (Haenlein and Kaplan, 2004) but its first software program LVPLS did not become publically available until 1984 (Temme et al., 2006).

Hulland (1999) claims that the covariance-based SEM (CB-SEM) is well-known among strategic management researchers but the variance-based SEM (PLS-SEM) is not. Henseler et al. (2009) argue that PLS-SEM has achieved an increasing popularity among researchers from various disciplines, especially international marketing. Furthermore, the recent M&A-integration and performance studies (Cording et al., 2008; Zollo and Meier, 2008) were carried out by PLS-SEM. The two methods are complementary in nature (Joreskog and Wold, 1982, cited in Hair et al., 2011) and simulation studies show that the differences in estimates between the methods are minor (Reinartz et. al, 2009, cited in Hair et al., 2011). In terms of criteria for selecting an appropriate method, Hair et al. (2011) provide the following guidelines:

- If the research goal is to predict key target constructs or identify key driver constructs, select PLS-SEM, but if it is to test/confirm a theory or compare alternative theories, select CB-SEM.
- If the sample data are relatively small in size (see **V.3.2)B**), select PLS-SEM, otherwise, select CB-SEM.
- If formative constructs (see **V.3.2)A**) are included in the measurement model, select PLS-SEM, but if it is not the case and error terms require additional specification, select CB-SEM.
- If the structural model is complex with many constructs/indicators, select PLS-SEM, but if it is not the case and it is non-recursive, select CB-SEM.

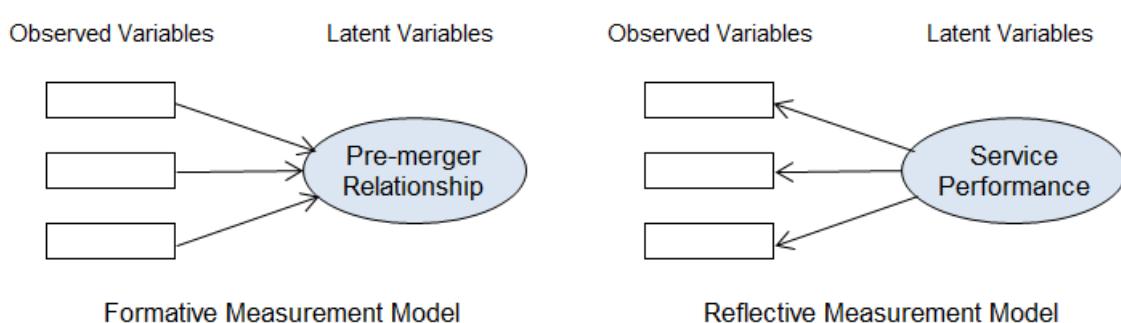
Considering the above, it would be reasonable to select PLS-SEM as the data analysis method for the following reasons — 1) the research goal is to identify key driver constructs rather than testing/confirming established theories, 2) the sample data size is small (139, not meeting the CB-SEM's criterion - see **V.3.2)B**), 3) formative measures are included in this study (see **V.3.2)A**), and 4) the structural model in this study is complex with many latent variables and structural paths.

## **2) Characteristics of the analytical technique**

### **A. Reflective and formative constructs**

Two basic types of relationship between constructs (latent variables) and measures (observed variables) are relevant to SEM — reflective and formative (Hulland, 1999), which is also referred to as the reflective measurement model, or Mode A, and the formative measurement model, or Mode B (Henseler et al., 2009). In the reflective model, observed variables are assumed to reflect variation in a latent variable and strong correlations among observed variables are expected, while in the formative model, a latent variable is defined as a combination of observed variables, with each observed variable representing an independent dimension in its own right, and no correlation among observed variables is expected (Henseler et al., 2009; Zollo and Meier, 2008). In this study, 'Pre-merger Relationship' (business relationships with selected acquirer and target) is treated as a formative variable because the construct is defined as a combination of the independent observed variables and no correlation is expected

between the observed variables. For instance, the relationship length with the acquirer has nothing to do with the relationship length with the target but the construct is formed by combining the two. All the remaining constructs are treated as reflective because variation in the constructs is assumed to be reflected in their respective observed variables and strong correlations are expected among the respective observed variables. For instance, the observed variables (speed of delivery, operational reliability and operational visibility) are related to each other and they are manifestations of the underlying construct (service performance). The figure below illustrates the relationships (**Ch-4 Figure 5**):



**Ch-4 Figure 5: Relationship between Construct and Measures**

## B. Sample size

To validate the model using CB-SEM, in general, 200 to 400 samples are required for 10 to 15 variables (Statistics Solutions) and most researchers use 250 to 500 samples (Schumacker and Lomax, 2004). PLS-SEM, on the other hand, can be used with a smaller sample size — a rule of thumb is larger than: 1) 10 times the largest number of formative indicators or 2) 10 times the largest number of structural paths directed at a particular construct (Barclay et al., 1995, cited in Henseler et al., 2009). Furthermore, a Monte Carlo simulation study (Chin et al., 2003) indicates that sample size does not influence the consistency of PLS-SEM estimates and it can be used even with 50 samples, although it is suggested to have a minimum sample size of 100. The usable sample size in this study is small (139, i.e. not meeting the CB-SEM's criterion); however, considering the above and the recently published M&A literature on applying PLS-SEM (e.g. 129 by Cording et al., 2008 and 148 by Zollo and Meier, 2008), it is large enough to properly carry out the data analysis using PLS-SEM.

### C. Analysis software

According to Temme et al. (2006), there are six software packages publically available for PLS-SEM — LVPLS 1.8 (MS-DOS base), PLS-GUI 2.0.1, Visual PLS 1.04, PLS-Graph 3.00 and SPAD-PLS (Windows base), and Smart PLS 2.0 (Java base). Their review highlights the strengths and weaknesses of the software packages as follows: 1) ease-of-use: all software (except LVPLS) is equally user-friendly to that of CB-SEM such as LISREL and AMOS, 2) estimates and sign: results from LVPLS, PLS-Graph and Smart PLS are similar, while that from SPAD-PLS is considerably different, 3) missing data: PLS-GUI and Visual PLS produce incorrect data, and 4) global model fit: none of the PLS-SEM software can offer validation measures such as goodness-of-fit index (instead blindfolding cross-validation indices are offered). Considering the software review results above, Smart PLS 2.0 (Ringle et al., 2005) was selected as the data analysis tool in this study.

## VI. RESULTS

Overall goodness-of-fit statistics are not available for a PLS model thus it is advisable to systematically analyse the data through the following two-step process: 1) reliability and validity assessment of the measurement model and 2) assessment of the structural model and hypothesis testing (Hair et al., 2011; Henseler et al., 2009; Hulland, 1999).

### 1. Measurement Model (Reliability and Validity)

Following the guidelines proposed by the authors above, assessment of reliability and validity was conducted separately for reflective and formative measurement models.

#### 1) *Reflective measurement model*

Reliability was assessed by two suggested criteria: indicator reliability and internal consistency. Indicator reliability (also called individual item reliability) refers to consistency of the items towards the constructs and is assessed by standardized factor loadings. In the first run, two items showed unacceptable scores (Harmonization of Pricing: -0.313 and Investment in Relationship: 0.344). Those two items were eliminated from the model following the guideline that items with low loadings of 0.4 or lower should

always be eliminated (Hair et al., 2011). After eliminating the two items, the indicator reliability assessment was rerun (see **Appendix P**). This time, all the items showed the reliability scores near or above the threshold of 0.7 (Hair et al., 2011; Henseler et al., 2009; Hulland, 1999), except for another two items (Billing Systems: 0.587 and Geographical Coverage: 0.501). Those two items were retained in the model considering their contributions to content validity (Hair et al., 2011). Internal consistency (also called construct reliability) refers to the extent to which items are consistent and free from random errors, and is assessed by composite reliability  $P_c$  (Werts, et al., 1974, cited in Henseler et al., 2009). All the composite reliability scores shown in **Appendix P** were above the threshold of 0.7 (Nunnally and Bernstein, 1994, cited in Henseler et al., 2009), indicating high internal consistency.

Validity was assessed by two suggested criteria: convergent validity and discriminant validity. Convergent validity refers to the extent to which items are correlated within the construct and is assessed by Average Variance Extracted (AVE). As shown in **Appendix R**, all the AVE scores were above the threshold of 0.5 (Fornel and Larcker, 1981, cited in Henseler et al., 2009). Discriminant validity refers to the extent to which the items within the construct are correlated compared to those within other constructs. It is assessed by Fornell-Larcker criterion as well as cross-loadings. To satisfy the first criterion, the AVE of each latent variable should be greater than the highest squared correlations with any other latent variables (Fornel and Larcker, 1981, cited in Henseler et al., 2009). As shown in **Appendix R**, all the latent variables satisfied this criterion. To satisfy the second criterion, loadings of each item within the construct should be greater than all of its cross-loadings (Chin, 1998, cited in Henseler et al., 2009). As shown in **Appendix S**, all the items satisfied this criterion, except two items (Billing Systems and Geographical Coverage) which did not satisfy the indicator reliability criterion. As explained above, those two items were retained in the model considering their contributions to content validity.

## **2) Formative measurement model**

In a formative measurement model, items are not expected to be highly correlated and assumed to be error free, thus the concept of internal consistency reliability and convergent validity do not work (Edwards and Bagozzi, 2000, cited in Hair et al., 2011).

The authors above proposed to assess the following two criteria: items' weights and loadings as well as multicollinearity. Items' weights (relative importance) and loadings (absolute importance) are assessed through bootstrapping<sup>28</sup> (available in PLS modelling software) by examining their significance. As shown in **Appendix T**, both weights and loadings are significant at 0.05 and 0.01 level respectively. This provides empirical support to keep both items in the model. Multicollinearity refers to high linear association among items and is assessed by each item's Variance Inflation Factor (VIF). As shown in **Appendix T**, VIF scores of both items are far below the threshold of < 5.0 (Hair et al., 2011). This indicates that the model is free from multicollinearity problems.

The results of the assessments above indicate that both reflective and formative measurement models in this study satisfy the suggested reliability and validity criteria.

## **2. Structural Model (Model Assessment and Hypothesis Testing)**

### **1) Control variables**

Prior to the model assessment, control variables were investigated for their potential influences on the model. This was done by assessing the significance of the structural parameters both with and without the control variables. The test for 'Supply Importance' and 'Supply Complexity' did not report any significant differences (i.e. having no significant impact on the model), while that for 'Pre-merger Relationship' and 'Merger/Integration Profile' reported significant differences (i.e. having significant impact on the model). Therefore, 'Supply Importance' and 'Supply Complexity' were not included in the structural model.

### **2) Model assessment**

Based on the guideline (Hair et al., 2011; Henseler et al., 2009), the structural model was assessed by the following three criteria: 1) R<sup>2</sup> (coefficient of determination) values, 2) magnitude and significance of path coefficients and 3) prediction relevance. In this

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<sup>28</sup> "Bootstrapping treats the observed sample as if it represents the population. The procedure creates a large, pre-specified number of bootstrap samples (e.g. 5,000)... Bootstrap samples are created by randomly drawing cases with replacements from the original sample" (Henseler et al., 2009: P305).

model assessment section, focus is given to  $R^2$  and prediction relevance since path coefficients are discussed in the hypothesis testing section.

The degree to which the model achieves its primary objective of minimizing measurement errors can be determined by assessing the  $R^2$  values for endogenous variables (Hulland, 1999). In terms of the  $R^2$  values, the following generic guideline is provided (Chin, 1998, cited in Henseler et al., 2009) — 0.67: substantial, 0.33: moderate and 0.19: weak level. As shown in **Ch-4 Figure 6** and **Appendix U**, the variance in ‘Loyalty’ is substantially explained by its exogenous variables (i.e. Service Performance, Product Selection, Customer Orientation, Account Management Quality and Competitive Response). More precisely, the  $R^2$  value for ‘Loyalty’ was 0.633, which means 63% of variance in ‘Loyalty’ is explained by its exogenous variables.

The degree to which the model has a capability to predict can be determined by assessing Stone-Geisser’s  $Q^2$  (Stone, 1974; Geisser, 1975, both cited in Henseler et al., 2009). It can be assessed using blindfolding<sup>29</sup> (available in PLS modelling software). In terms of the  $Q^2$  values, the following generic guideline is provided (Henseler et al., 2009) — 0.35: large, 0.15: medium and 0.02: small predictive relevance. As shown in **Appendix V**, the model has a strong predictive capability ( $Q^2 = 0.504$ ) for ‘Loyalty’.

### **3) Hypothesis testing**

The hypotheses can be evaluated by assessing the sign (positive or negative), magnitude and significance of path coefficients (see **Ch-4 Figure 6** and **Appendix U** that also shows descriptive statistics for each path).

The first set of hypotheses addressed the link between the extent of operations and IT system integration, perceived service performance and the level of customer loyalty during the post-M&A integration period. **Hypothesis 1** – arguing that a high level of operational integration is related to perceived deterioration in service performance – was rejected (almost no direct effects). **Hypothesis 2** – arguing that a high level of IT system

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<sup>29</sup> Blindfolding procedure is explained as follows (Tenenhaus et al., 2005: P174-175): 1) The data matrix is divided into G groups. The value G = 7 is recommended. 2) Each group of cells is removed at its turn from the data. So a group of cells appears to be missing. 3) A PLS model is run G times by excluding one of the groups each time.

integration is related to perceived deterioration in service performance – was rejected (significant but opposite sign). **Hypothesis 3** – arguing that perceived deterioration in service performance is related to decreased customer loyalty – was strongly supported (path coefficient: 0.981,  $p < 0.01$ ).

The second set of hypotheses addressed the link between the extent of marketing integration, perceived breadth of product selection and the level of customer loyalty during the post-M&A integration period. **Hypothesis 4** – arguing that a high level of marketing integration is related to perceived improvement in product/service selection – was weakly supported<sup>30</sup> (0.156,  $p < 0.1$ ). **Hypothesis 5** – arguing that perceived improvement in product/service selection is related to increased customer loyalty – was supported (0.348,  $p < 0.01$ ).

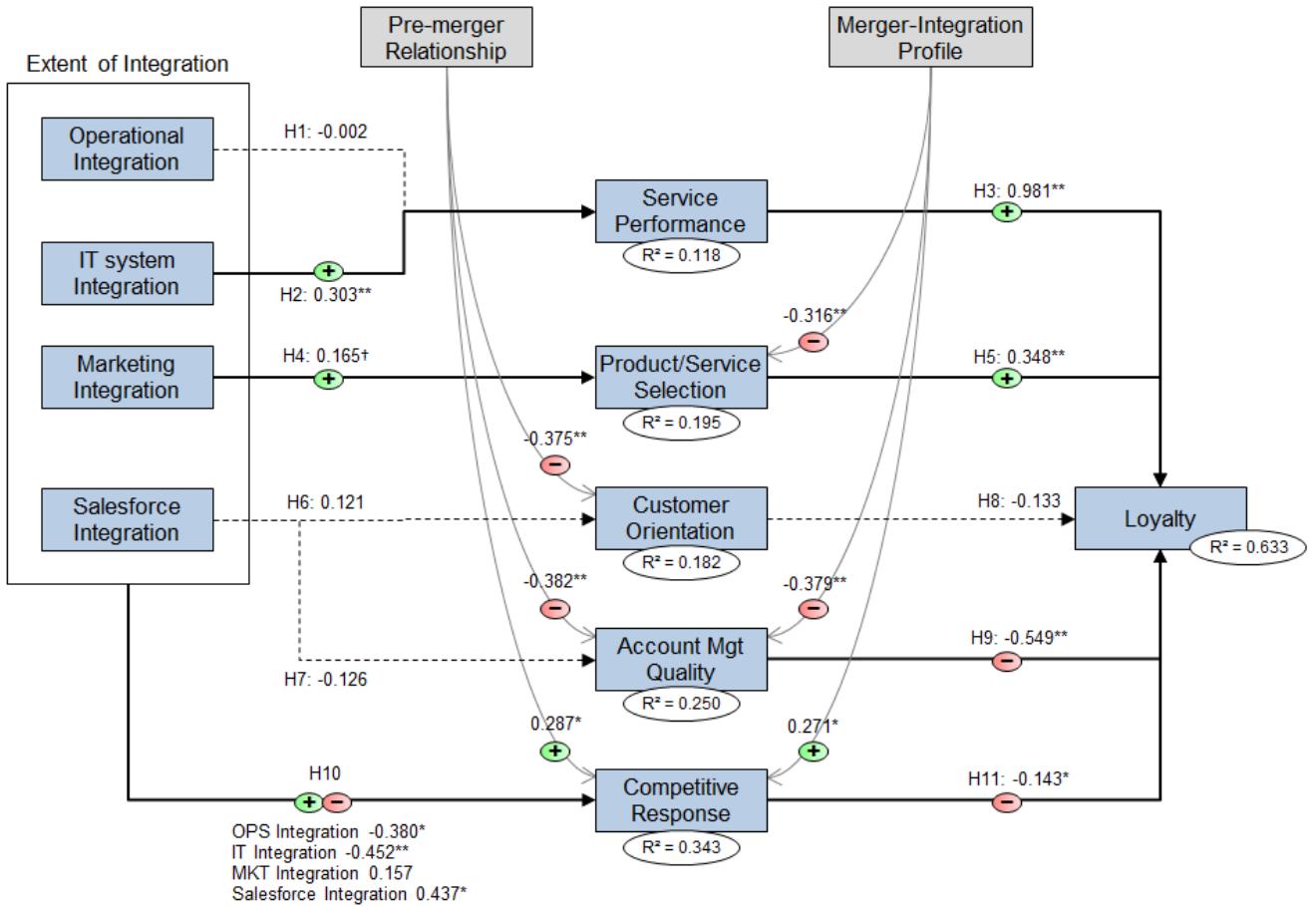
The third set of hypotheses addressed the link between the extent of salesforce integration, perceived level of customer orientation, perceived quality of account management and the level of customer loyalty during the post-M&A integration period. **Hypothesis 6** – arguing that a high level of salesforce integration is related to perceived decline in customer orientation – was rejected (no significant effects). **Hypothesis 7** – arguing that a high level of salesforce integration is related to perceived decline in account management quality – was rejected (no significant effects). **Hypothesis 8** – arguing that perceived decline in customer orientation is related to decreased customer loyalty – was rejected (no significant effects). **Hypothesis 9** – arguing that perceived decline in account management quality is related to decreased customer loyalty – was rejected (significant but opposite sign).

The final set of hypotheses addressed the link between the extent of overall integration, magnitude of competitive response and the level of customer loyalty during the post-M&A integration period. **Hypothesis 10** – arguing that a high level of overall integration is related to an increase in competitive response – was supported for Salesforce Integration (0.437,  $p < 0.05$ ) but rejected for the other types of integration (significant but opposite sign or no significant effects). **Hypothesis 11** – arguing that an

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<sup>30</sup> One may claim that  $p < 0.1$  is not a statistically significant level but it is reported, following the practice in recently published papers (Chen et al., 2010; Cording et al., 2008; Homburg and Bucerius, 2005; Zollo and Meier, 2008;).

increase in competitive response is related to decreased customer loyalty – was supported (0.143,  $p < 0.05$ ).



**NOTE:**

Standardized path coefficients are shown (insignificant paths of control variables are not shown)

†  $p < 0.1$  \*  $p < 0.05$  \*\*  $p < 0.01$

$R^2$  = Coefficient of determination

(+) (−) shows a sign (positive/negative) of correlations

**Ch-4 Figure 6: Structural Model**

## VII. DISCUSSION

### 1. Key Findings

Many of the findings in this study are in line with previous studies, while some are conflicting with them and others are entirely new in the field of study.

### **1) IT system integration**

It was indicated that limited IT system integration leads to perceived deterioration in service performance, while complete IT system integration leads to perceived improvement in service performance during the post-M&A integration period. This suggests that customers perceive limited integration in a negative manner and complete integration in a positive manner for IT systems. The finding provides empirical support to the argument in the M&A/IT literature that the urgent need for operational integration often leads to incomplete IT system integration with malfunctions, which has a detrimental effect on service quality (McKiernan and Merali, 1995). It is important to note that IT system integration appears to act as a key predictor of how customers perceive changes in service performance during the post-M&A integration period in the logistics industry.

### **2) Service performance**

The study provided strong evidence that perceived deterioration in service performance results in decreased customer loyalty during the post-M&A integration period. This is consistent with the previous studies in the marketing literature that product/service performance is positively associated with customer satisfaction which is positively associated with customer loyalty under ‘business as usual’ conditions (Fynes and Voss, 2002; Heskett et al., 1994; Patterson et al., 1997) and the M&A literature that customer reactions are largely influenced by changes in operational procedures/performance (Tunisini and Bocconcelli, 2005). This is also in line with the finding in the author’s previous research (Project-2, a case study of multi-business mergers and integration) that the operational disruption during the integration was one of the most prominent reasons for customers to switch to other service providers in order to avoid any negative impacts on their own customers.

It was also found that the perceived change in service performance is by far the most influential predictor for changes in customer loyalty (path coefficient of 0.981,  $P < 0.01$ ). The value indicates a very powerful direct effect, i.e. when the value of service performance decreases by 1 standard deviation (SD), the value of customer loyalty decreases by 0.981 SD. This implies that service performance is everything for customers and other effects, namely ‘Customer Orientation’ and ‘Account Management

Quality', are offset by its perceived changes. This is a new finding not documented in the M&A literature.

### **3) Marketing integration**

It was confirmed that a high level of marketing integration leads to perceived broadness in product/service selection which, in turn, contributes to increased customer loyalty during the post-M&A integration period. This is consistent with the previous studies in the marketing literature that there is a positive correlation between supplier's product/service breadth and customer loyalty under 'business as usual' conditions (e.g. Wathne et al., 2001) and the M&A literature that revenue synergies are expected from broadened product offerings (Schweiger and Very, 2003), product-line extension results in revenue enhancement (Capron and Hulland, 1999) and customers positively perceive extended product variations (Anderson et al., 2003b). This is also in line with the Project-2 finding that broadened service offerings not only helped the customers to reduce the number of suppliers but also enabled the organisation to meet its customers' complex needs or to offer cheaper options, which led to an increase in business.

### **4) Customer orientation**

It was indicated that customers decrease business with suppliers if service performance is perceived to have deteriorated but customers increase business if service performance is perceived to have improved, regardless of perceived changes in customer orientation, for both cases, during the post-M&A integration period. As stated above, this is due to the over-riding influence of service performance (see VII.2.3) for its justification). This finding is against the previous studies in the M&A literature, where a high level of customer orientation mitigates the negative impact of post-M&A integration on market-related performance, e.g. customer retention (Homburg and Bucerius, 2005) and the level of customer orientation is positively associated with the market expansion performance, e.g. increase in cross-selling (Cording et al., 2008). The contradictory findings may be owing to the following differences between their studies and this study: 1) the former are based on supplier perspectives, while the latter is based on customer perspectives and 2) the former focus on marketing & sales factors, while the latter includes marketing & sales as well as operational factors.

## **5) Account management quality**

It was indicated that customers decrease business with suppliers in cases where service performance is perceived to have deteriorated, even if account management quality is perceived to have improved during the post-M&A integration period. Contrariwise, customers increase business with suppliers in cases where service performance is perceived to have improved, even if account management quality is perceived to have declined. As stated above, this is due to the over-riding influence of service performance (see VII.2.3) for its justification). This finding is against the previous studies in the marketing literature under ‘business as usual’ conditions — account management quality is positively associated with customer trust in supplier and customer commitment to supplier, which leads to loyalty (de Ruyter et al., 2001) and account management quality is positively associated with overall business performance (Birkinshaw et al., 2001; Workman et al., 2003). The contradictory findings may be owing to the following differences between their studies and this study: 1) the former investigate the effect in a business as usual situation, while the latter investigates that during the post-M&A integration period and 2) the former focus on business relationship issues, while the latter covers marketing & sales as well as operational issues.

## **6) Competitive response**

It was found that a high level of salesforce integration and limited IT system integration lead to an increase in competitive response, which results in decreased customer loyalty during the post-M&A integration period. This provides empirical support to the arguments in the M&A literature that integration issues generate perfect environments for competitive attacks (Bekier and Shelton, 2002), competitors attempt to disrupt the acquirer's customer relationships (Schweiger, 2002), competitors' attacks cause a loss of important customers (Clemente and Greenspan, 1997) and “*the best time to attack your competitor is when he is in the middle of a complex merger process... this is the time when he is least likely to be able to muster a coordinated response to any form of attack*” (Meyer, 2008: P211). This is also in line with the Project-2 finding that a commercially/operationally unstable and changing environment was created as a result of the integration, which allowed the organisation's rivals to take some customers away.

## **7) Merger/integration profile**

It was found that the complexity of the merger/integration (e.g. cross-border mega merger/integration) negatively influences: 1) perceived changes in product/service breadths (i.e. the greater the complexity of merger/integration profile, the narrower the perceived product/service breadths) and 2) perceived changes in account management quality (i.e. the greater the complexity of merger/integration profile, the greater the perceived decline in account management quality), and at the same time, positively influences 3) competitive response (i.e. the greater the complexity of merger/integration profile, the greater the magnitude of competitive response) during the post-M&A integration period. The finding on merger profile and competitive response is consistent with the results of previous studies in the competitive strategy, i.e. when a firm's market action has a visible competitive impact on its rivals (e.g. a cross-border mega merger in this case), a great number of responses are to be expected (Chen et al., 1992; Otero-Neira and Varela-González, 2005; Waarts, 1999). The finding (merger type and integration scope) implies relevance to the previous studies in the M&A literature that a cross-border merger has a unique set of challenges and its integration is more difficult than that of a domestic merger (Shimizu et al., 2004) and cross-border mergers deliver lower post-merger performance than domestic mergers (Bertrand et al., 2011).

## **8) Pre-merger relationships**

It was found that the depth of the pre-merger relationships negatively influences: 1) perceived changes in customer orientation (i.e. the deeper the pre-merger relationships such as long-term relationships with both acquirer and target, the greater the perceived decline in customer orientation) and 2) perceived changes in account management quality (the deeper the pre-merger relationships, the greater the perceived decline in account management quality), and at the same time, positively influences 3) competitive response (i.e. the deeper the pre-merger relationships, the greater the magnitude of competitive response) during the post-M&A integration period. This is a new finding not documented in the M&A literature.

## **9) Supply importance and supply complexity**

The marketing literature (e.g. Cannon and Perreault, 1999; Patterson et al., 1997; Stock, 2005) indicates that Supply Importance (perceived importance of the supply compared to other purchases) and Supply Complexity (perceived complexity of the supply compared to other purchases) influence customer relationships in a business as usual situation. However, this study indicated that neither of them has a significant impact on perceived changes in customer relationship variables and changes in customer loyalty during the post-M&A integration period.

## **2. Reflections on the Data Analysis**

Several of the original hypotheses were rejected by the structural model (**Ch-4 Figure 6**). These unexpected results are discussed below, including further investigation of the survey data to identify possible underlying reasons.

### **1) Operational integration (H1)**

The model indicates that the extent of operational integration does not significantly influence perceived changes in service performance during the integration period. However, since one of the most important operational measures in the logistics industry is service performance (Transport Intelligence, 2006), service performance should be influenced by operational integration in some way or another. To uncover the issue, the author explored inside the survey data (see **Appendix W** — Note: a statistical analysis cannot be conducted due to the limited sample size, by merger case by region). Key findings from the data are as follows. Firstly, even a low-moderate level of operational integration led to perceived deterioration in service performance. DB Schenker with BAX Global, C.H. Robinson with LXSI in the US and Ryder with TLC in rest of the world are typical examples. Secondly, the extent of operational integration and its impact on service performance vary by region. For instance, the DHL-Exel merger case was as follows: partial integration with neutral impact in Asia Pacific, complete integration with neutral impact in Europe, complete integration with positive impact in the rest of the world and partial integration with negative impact in the US. Finally, the impact of operational integration on service performance is different by acquirer's division. For instance, the integration of Menlo led by UPS Forwarding division was perceived to be

negative but that of Overnite led by UPS Freight division was perceived to be neutral-positive. The findings above may imply that it is the way operational integration is carried out by division by region that influences perceived changes in service performance, rather than the extent of operational integration.

## **2) Salesforce integration (H6 and H7)**

The model indicates that the extent of salesforce integration does not significantly influence perceived changes in customer orientation and account management quality. However, M&A scholars (e.g. Homburg and Bucerius, 2006) as well as practitioners (e.g. Bekier and Shelton, 2002) argue that salesforce integration negatively affects customer orientation and account management quality, which is empirically supported by the author's previous case study (Project-2). The contradictory findings above may suggest that the integration of salesforce certainly influences perceived changes in customer orientation and account management quality; however, the impact is not driven by the extent of integration.

## **3) Customer orientation and account management quality (H8 and H9)**

The model indicates that perceived changes in customer orientation do not significantly influence the changes in customer loyalty, while perceived changes in account management quality negatively influence the changes in customer loyalty, which is opposite to the original hypotheses. As stated earlier, these unexpected results are believed to be due to the over-riding influence of service performance. In order to validate this, the structural model was re-assessed by controlling 'operational factors' (i.e. operational integration, IT system integration and service performance). The controlled model indicates that perceived changes in customer orientation significantly/positively affect the changes in customer loyalty (path coefficient: 0.213, p<0.05), while perceived changes in account management quality significantly/positively affect the changes in customer loyalty (0.205, p<0.05). The positive effects are in line with the original hypotheses as well as the previous studies (e.g. Cording et al., 2008; de Ruyter et al., 2001). However, it is important to note that the 'people factors' (i.e. customer orientation and account management quality) act as key enablers for customer loyalty only when the operational factors are controlled, at least during the post-M&A integration period in the logistics industry.

#### **4) Competitive response (H10)**

The model indicates that the extent of salesforce integration positively influences perceived changes in competitive response; however, the extent of operational integration and IT system integration negatively influences perceived changes in competitive response, which again is opposite to the original hypothesis. The negative influence of IT system integration (i.e. the greater the extent of IT system integration, the weaker the magnitude of competitive response), can be explained by the positive relationship between IT system integration and service performance (i.e. the greater the extent of IT system integration, the greater the perceived level of service performance). This suggests that in cases where IT systems have been fully integrated and service performance is perceived to have been improved, customers would not seriously consider offers from the supplier's rivals; therefore, the magnitude of competitive response is perceived to be weaker. In terms of the negative influence of operational integration (i.e. the greater the extent of operational integration, the weaker the magnitude of competitive response), it would be possible to rationalise the result for the following reasons: 1) the extent of operational integration does not significantly influence perceived changes in service performance (see **Ch-4 Figure 6**), 2) the complexity of the merger/integration profile is negatively associated with the extent of operational integration (path coefficient: -0.213,  $p<0.01$ )<sup>31</sup>, which implies that when the complexity of merger/integration profile is high, there is a tendency that the executed level of operational integration is low, and 3) the merger/integration profile is positively associated with competitive response (see **Ch-4 Figure 6**). This suggests the following relationships: high merger/integration profile, limited operational integration and high competitive response. Inspection of the underlying data showed that DB Schenker with Bax Global in Asia Pacific, DP-DHL with Exel in the US and A.P.M. Maersk with Damco were typical examples.

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<sup>31</sup> This relationship is not part of the original structural model (because both the merger/integration profile and operational integration are exogenous variables), and is assessed only for the purpose of this discussion.

## VIII. CONCLUSION

The objective of this study was to test the key variables/interrelationships identified in Project-2 and build a model explaining how post-M&A integration affects customer relationships and competitive responses as well as customers' purchase intentions. Through a quantitative survey-based approach, the study aimed to begin the process of generalization. The following research questions were explored in this study — A) What are the key factors that affect customer relationship variables during the supplier's post-M&A integration period? B) What are the key customer relationship variables that influence the level of customer loyalty (i.e. decrease or increase business with the supplier) during the integration period?

A theoretical model was developed with the following set of hypotheses addressing the link between: 1) the extent of operations and IT system integration, perceived service performance and the level of customer loyalty, 2) the extent of marketing integration, perceived breadth of product selection and the level of customer loyalty, 3) the extent of salesforce integration, perceived level of customer orientation, perceived quality of account management and the level of customer loyalty, and 4) the extent of overall integration, magnitude of competitive response and the level of customer loyalty, all during the post-M&A integration period. The study data were collected mainly through social media by means of a questionnaire survey. Then the theoretical model was tested by the data through simultaneous modelling of relationships among multiple latent variables (i.e. structural equation modelling). The end product of this study was a structural model (see **Ch-4 Figure 6**) indicating potential causal correlations between integration activities, perceived changes in customer relationship variables and competitive responses, and changes in the level of behavioural customer loyalty during the post-M&A integration period.

### **1. Contributions**

There have been a very limited numbers of academic research papers to date that have investigated customer relationship issues in the context of M&A/integration. M&A-integration and performance studies (e.g. Cording et al., 2008; Homburg and Bucerius, 2005) provide structural models assessing the link between post-M&A integration and

marketing factors. The indicated causal relationships are noteworthy; however, since they do not explicitly study the customer-supplier relationship issues, one cannot know how M&A/integration impacts on customer relationships. M&A-integration and business network studies (e.g. Anderson et al., 2001; Havila and Salmi, 2000) provide deep insights on customer-supplier relationships affected by post-M&A integration. However, since almost all of these studies are exploratory case studies, one cannot see a holistic picture of the impact of M&A/integration on customer relationships. The existing literature provides many insights but does not provide a satisfactory answer to the overall research problem — What are the key factors that drive particular customer reactions, i.e. increase or decrease business with the supplier during the post-M&A integration period, and in what way?

Considering the issues above, this study made the following contributions to the advancement of the research field. Firstly, the structural model (**Ch-4 Figure 6**) was developed based on customers' views on their suppliers' post-M&A integration actions, perceived changes in their suppliers' performance and loyalty during the post-M&A integration period. To the best of the author's knowledge, this is the first M&A research to build such a customer perception model in a business-to-business setting. Secondly, the magnitude of competitive responses and its impact on customer loyalty during the post-M&A integration period — frequently discussed issues in the research field — was investigated for the first time through a quantitative research method. The findings would not only extend previous conceptual discussions in M&A research (e.g. Schweiger, 2002) but also help in bridging the gap between M&A and competitive response research (e.g. Chen and Miller, 1994). Thirdly, perceived changes in suppliers' operational, marketing and people factors as well as their impacts on changes in customer loyalty were analysed through simultaneous modelling of those relationships. The model presented a closer-to-the-reality situation and indicated the existence of one powerful variable (service performance) absorbing effects from other variables. This over-riding effect could not be detected in studies focused only on people factors, such as customer orientation. Fourthly, integration actions were investigated by key customer-facing business functions (i.e. operations, IT systems, marketing and salesforce) unlike most M&A impact/performance studies (e.g. Chen et al., 2010; Cording et al., 2008; Zollo and Meier, 2008) that treat integration as a single generic construct. Hence, the findings would provide a deeper understanding of the impact of integration on customer

relationship variables; for instance, IT system integration would act as a key predictor of how customers perceive changes in service performance. Finally, this study introduced new constructs (i.e. complexity of merger/integration profile and depth of pre-merger relationships) that were found to have significantly negative impacts on perceived changes in customer relationship variables during the post-M&A integration period. Combined with the above mentioned factors (i.e. functional integration, operational/marketing/people factors and competitive response), those constructs may contribute by providing a holistic picture of the impact of integration.

Aside from the contents contributions above, this study also made methodological contributions. The study data were collected through social media (mainly LinkedIn), which was the first case at a doctoral research community, at least in Cranfield School of Management. Particular challenges, administration processes and tactics (e.g. monitoring group discussions regularly, updating messages constantly with different discussion titles... etc) were documented. Considering the fact that many researchers, especially doctorate students, struggle in collecting data from professionals, this section of the paper would contribute to many researchers in the business management field.

## **2. Managerial Implications**

The following is a high-level summary of the findings in this study, particularly focused on the negative effects of the post-M&A integration:

- Incomplete IT system integration leads to perceived deterioration in service performance.
- Perceived deterioration in service performance is the decisive predictor for decreased customer loyalty. One of the survey respondents commented: "*I have never seen any one M&A delivering even 50% of what was expected...*"
- When service performance deteriorates, customers would switch suppliers even if account management quality is improved. This suggests that merging parties with service performance problems allocate more sales resources trying to recover the situation (thus account management quality improves), but the efforts do not bear fruit.
- Customers having long-term relationships with merging parties tend to negatively perceive changes in customer orientation and account management quality.

- Full-scale salesforce integration in a complex merger leads to enhanced competitive responses, which in turn lead to a reduction in customer loyalty.

Based on the above, implications for managers involved in post-M&A integration activities are provided, among other things:

- (1) Pay extra attention to the feasibility of an operational transition plan and its execution, particularly in terms of its impact on service performance.
- (2) Complete IT system integration prior to operational transitions in order to mitigate potential risks of operational disruptions.
- (3) In the case where service performance deteriorates, take immediate actions focusing resources on its recovery rather than putting further pressure on the salesforce.
- (4) Provide special treatment to long-term-relationship customers of both merging firms.
- (5) Keep an eye open and be prepared for enhanced attacks from competitors, i.e. they would aggressively approach customers with attractive propositions.

### **3. Limitations and Future Research**

This study has some potential limitations that need to be acknowledged. Firstly, there is a limitation in the data collection method that relies on the survey participants' retrospective memory of up to five years. The issue is acknowledged but it may not seriously damage the credibility of the research data for the following reasons. The respondents are managers/directors who are supposed to be intelligent enough to properly recall events. Furthermore, M&As are major corporate events thus things are expected to be recalled more accurately and completely (Huber and Power, 1985, cited in Schoenberg, 2006). These points were supported in the author's previous research (Project-2) — none of the interviewees expressed difficulties in recalling the events of up to six years ago, while some customers provided lively comments, for instance: "*increase of the rates by 180%*" and "*on-time performance went down to 92% or below*". Secondly, some may pose a question for generalizability of the study findings based on the fact that the sample size is small (139), and, furthermore, the estimated sample representativeness is as low as 0.1%, which may imply the existence of non-response bias in the data set. The limitation is acknowledged because this study is one of the first

in the M&A research field to collect data from customers in a business-to-business setting, making use of social media, and its primary aim was to ‘begin the process of generalization’.

The author suggests the following areas for future research. Firstly, this study was based on selected merger cases in the logistics industry with a limited number of samples. Future research is expected to collect/analyse data from cross-industry merger cases with a much larger sample size in order to generalize its findings. Secondly, this study indicated that perceived changes in service performance are not affected by the extent of operational integration. An assumption was made that those may be affected by the way operational integration is carried out by division by region. To test that, other measures may need to be introduced in a future study, which can be, for instance, ‘speed of integration’ (Angwin, 2004; Homburg and Bucerius, 2006) and ‘acquisition experience’ (Cording et al., 2008). Furthermore, it may be necessary to investigate the impact of operational integration at a much more detailed level than current studies are adopting — i.e. by division by region, in the case of global M&A. Thirdly, this study also indicated that it is not the extent of salesforce integration that affects perceived changes in customer orientation and account management quality. Since scholars and practitioners argue that salesforce integration does affect those (e.g. Bekier and Shelton, 2002; Homburg and Bucerius, 2006), future research may need to develop even more grounded measures of salesforce integration. Finally, this study investigated competitor responses to post-M&A integration through customer’s perceptions about their moves rather than direct inputs from them, due to the difficulty of directly approaching competitors in this research setting. Future research will hopefully overcome the limitation by developing dedicated measures drawn from the competitive response literature (e.g. Chen and Miller, 1994).

## Appendix A: Key Actions/Variables Identified in Project-2

<b>Integration actions</b>		<b>Customer relationship variables</b>
1	Operational transition	1 Service performance
2	Operational standardization	2 Flexibility
3	Organizational restructuring	3 Complaint handling
4	IT integration	4 Customer orientation
5	Multi-BU establishment	5 Employee satisfaction
6	Change in pricing strategy	6 Employee turnover
7	Corporate re-branding campaign	7 Account management quality
+		8 Communication
Unstable/changing environment		9 IT capability (operational visibility)
		10 Organizational culture
		11 Multi-channel alignment
		12 Product/service selection
		13 Psychological contract
		14 Competitive response

## Appendix B: Key Actions/Variables from Project-2 to Project-3

Integration actions		Customer relationship variables
1 OPS transition	Operational integration	1 Service performance
2 OPS standardization		2 Flexibility → Part of "Customer orientation"
3 Organizational restructuring → Salesforce integration		3 Complaint handling → Part of "Account management quality"
4 IT integration		4 Customer orientation
5 Multi-BU establishment	Marketing integration	5 Employee satisfaction → Out of scope
6 Change in pricing strategy		6 Employee turnover → Part of "Account management quality"
7 Corporate re-branding campaign → Out of scope		7 Account management quality
+		8 Communication → Part of "Customer orientation"
Unstable/changing environment → Overall integration effect		9 IT capability (operational visibility) → Part of "Service performance"
		10 Organizational culture → Out of scope
		11 Multi-channel alignment → Part of "Account management quality"
		12 Product/service selection
		13 Psychological contract → Out of scope
		14 Competitive response



Integration actions and customer relationship variables hypothesized in Project-3

## Appendix C: Pilot Study (v1, paper version)

The following feedbacks were provided by seven experts in terms of cover letter, questionnaire structure and questionnaire items, most of which were reflected in the updated version of the questionnaire:

**Logistics practitioners (2):** Overall they commented that it was easy to follow and it took them about 10-15 minutes to complete. Here are key comments from them:

### Cover letter

It would be a good idea to add a statement encouraging respondents to invest their time to complete the questionnaire.

### Questionnaire structure

The 7-point rating scale with no explanation for scale 2-3 and 5-6 was rather confusing, thus it was recommended to change.

### Questionnaire items

- Extent of integration — integration is managed internally thus there might be a gap between customer's perception and real actions.
- Operational performance — the item "Reliability" of transportation & logistics services could be best measured by "OTIF" (On Time In Full) rather than delivery and/or warehouse management.
- Customer orientation — the item "Frontline employees' customer orientation" needs to be further clarified.
- Account management quality — first three items may apply also for customer service, not only for account management.
- Supply characteristics — the term "supply" and "other category" need to be further clarified.

**Business consultant (1):** Overall he commented that it was well designed and nicely presented, and it took him about 15 minutes to complete. Here are key comments from him:

### Cover letter

The confidentiality statement needs to be fine-tuned.

### Questionnaire structure

It would be better moving Section-5 (about your organisation and yourself) to the front of the questionnaire. → **Decision:** since Section-1 (selection of a particular merger case) must be placed at the front of this questionnaire, it was decided not to take his suggestion.

**Marketing professional (1):** Overall he commented that it was acceptable and it took him about 10 minutes to complete. Here are key comments from him:

## Cover letter

The letter in general and the confidentiality statement in particular need to be fine-tuned — some suggestions have been provided.

## Questionnaire structure

- Questionnaire respondents in general do not want to read texts, thus the comment/explanation at each section can be minimized or even deleted.
- The 7-point rating scale at Section-2 (extent of integration) looks complicated for respondents. It would be better in 3-point (no, partial complete integration) rather than 7-point.
- Section-3 (impact of integration) could be divided into two parts i.e. ask the same set of questions for 1) before the M&A and 2) during the integration. → **Decision:** there is an advantage of doing so (i.e. each item becomes easier for the respondents to answer), but there are two major issues. First, the number of questions increases from 48 to 70, which may discourage the respondents to complete the questionnaire. Second, by separating the question (before and during the integration), it would force the respondents to compare their answer each time, which may be even harder for them to carry out. Therefore it was decided not to take his suggestion.

**Academics (3):** Here are key comments from them:

## Cover letter

The letter in general and the confidentiality statement in particular need to be fine-tuned — some suggestions have been provided.

## Questionnaire structure

- Section-2 (extent of integration) and Section-3 (impact of integration) looks like asking about the same thing thus there is a risk of getting answered in the same way, which may lead to a serious methodological problem (i.e. **common method biases**). They suggested changing the questionnaire lay-out.
- The comment/explanation at each section needs to be fine-tuned — some suggestions have been provided.
- All the questions should be numbered.

## Questionnaire items

- The wording “during their integration period” should be replaced by “in the first 2 years following their merger announcement”, considering the situation that there was no integration after the merger.
- Supply characteristics — the term “supply” and “other category” need to be further clarified.
- Section-1b can be simpler if it is asked directly.
- There are four questions that can be seen as double barrelled (delivery and/or warehouse...).

## Appendix D: Pilot Study (v2 and v3, online version)

Based on the feedbacks received in the pilot one, the questionnaire was updated and then transformed into an online version, utilizing the **SurveyMonkey** ([www.surveymonkey.com](http://www.surveymonkey.com)). To finalize the questionnaire design, the author asked further six experts to go through the online questionnaire and provide feedbacks mainly about its structure and items. Most of their feedbacks have been reflected in the final questionnaire.

### Logistics consultants (4)

The pilot respondents (logistics consultants) have practical experiences of mergers in the logistics industry. From their professional point of view, they commented that the online questionnaire was clear and easy to follow. Here are key comments from them:

- Section-3, Question-5 (Personnel continuity) needs to be further clarified.
- Section-6 (importance and complexity of purchase) can be moved to either front (before Section-3) or back (after Section-7) of the questionnaire, in order to avoid confusion (because these questions are nothing to do with the merger).
- Section-6 questions need to be re-designed and simplified so that all the respondents can go through without any problems.

### Academics (2)

The questionnaire (v2) was further updated (v3) based on the feedbacks above. Final comments on v3 from the academic supervisors are as follows:

- Section-1 can be improved to make the selection easy for the respondents.
- Section-5 (Your reaction) format should be aligned with the previous section. → **Decision:** this is to mitigate the common method biases, thus it was decided to keep the format as it is.
- Section-7 (importance and complexity of purchase): The wording can be further improved.
- It is advisable not to force participants to answer all the questions otherwise they may withdraw before completing the questionnaire.

## Appendix E: Online Questionnaire

The questionnaire was designed and posted online using the **SurveyMonkey** —  
[https://www.surveymonkey.com/s/Cranfield\\_JKato\\_a](https://www.surveymonkey.com/s/Cranfield_JKato_a)

Here is the questionnaire posted online:

**Mergers in The Logistics Industry (a)**

**Introduction**

Dear questionnaire participant,

I am a part-time doctorate student at Cranfield University School of Management and I am conducting a study of mergers and acquisitions (M&As) in general and the impact of post-merger integration on the customer relationship in particular.

This study focuses on mergers in the transportation & logistics industry and the questions are mainly about how your transportation & logistics service provider(s) performed following their mergers.

Through your valuable insights, I hope to identify key factors that impact customers and drive particular customer reactions (i.e. an increase or decrease in business with the supplier) during the post-merger integration period, which would enable organisational learning for the future.

Your responses will be kept strictly confidential. Information provided will be reported only at an aggregate level and thus will not be identified with your name or organisation.

I sincerely hope that you can take about 10-15 minutes to complete this questionnaire. Without the help of people like you, research on how customers respond to merger activities could not be conducted.

As a token of my appreciation, I would be happy to send you an executive summary of the findings later this year, as indicated on the last page of the questionnaire.

If you have any questions or concerns about the questionnaire, please do not hesitate to contact me at [junichi.kato@cranfield.ac.uk](mailto:junichi.kato@cranfield.ac.uk).

Yours faithfully,

Junichi Kato  
Executive Doctorate,  
Cranfield University School of Management

## Mergers in The Logistics Industry (a)

### Section 1: Selection of a particular merger in this survey

1. Here is a list of large mergers in the transportation & logistics industry between 2005-2010. Please select ONE merger case you are most familiar with as a customer of either the acquirer and/or target.

#### Acquirer and Target:

- Agility (former PWC Logistics) and GeoLogistics (UK + world) In 2005
- Agility and Transoceanic Shipping (USA) In 2005
- Agility and Trans-Link Group (Singapore + Asia) In 2005
- Agility and WTS (World Transport Services, USA) In 2007
- A.P. Moeller-Maersk and P&O Nedlloyd (UK-NL + world) In 2005
- A.P. Moeller-Maersk and Damco Sea & Air (NL + world) In 2005
- Ceva (former TNT Logistics) and EGL (Eagle Global Logistics, USA + world) In 2007
- C.H. Robinson Worldwide and LXSI Services (USA) In 2007
- C.H. Robinson Worldwide and Transera International (Canada) In 2008
- DB Schenker and BAX Global (USA + world) In 2007
- Deutsche Post DHL (DP-DHL) and Blue Dart (India) In 2004-2005
- Deutsche Post DHL and Exel (UK + world) In 2005
- DSV and Frans Maas (Netherlands + Europe) In 2006
- DSV and ABX Logistics (Belgium + Europe) In 2008
- Geodis and TNT Freight Management (Netherlands + Europe) In 2006
- Geodis and Rohde & Liesenfeld (Germany + world) In 2008
- Geodis and Giraud International (France + Europe) In 2009-2010
- Kuehne+Nagel and ACR Logistics (former Hays Logistics, USA + Europe) In 2005
- Norbert Dentressangle (ND) and Christian Salvesen (UK + Europe) In 2007
- Ryder Systems and CRSA Logistics (Canada + Asia) In 2008
- Ryder Systems and Total Logistic Control (TLC, USA) In 2010
- Toll Group and Patrick Corporation (Australia) In 2006
- Toll Group and SemCorp Logistics (Singapore + Asia) In 2006
- Toll Group and Sembawang Kimtrans (Singapore + Asia) In 2007
- Toll Group and Baltrans (Hong Kong + Asia) In 2007
- Toll Group and Gluck Forwarding Systems (Australia) In 2008
- UPS and Menlo Worldwide Forwarding (USA + world) In 2004-2005
- UPS and Overnite Corp. (USA) In 2005
- UPS and Lynx Express (UK) In 2005
- Util Worldwide and Market Industries (USA) In 2006
- Other - Not in the list (please specify below)

Other – Please type the name of ACQUIRER and TARGET in the box below:

If you are not familiar with any of the merger cases in the transportation & logistics industry, please exit from the questionnaire here by clicking "Exit this survey" button at the upper right. I would be grateful if you could send the survey link to your friends/colleagues who may know the merger cases above.

I would like to thank you for your willingness to consider participating in this study.

## Mergers in The Logistics Industry (a)

### Section 2: Relationship with your supplier

From this section onward, please answer the questions with the selected merger case in mind.

#### 2. Had your organization been dealing with the ACQUIRER or the TARGET before their merger?

	No	Yes, < 1 year	Yes, 1-5 years	Yes, > 5 years
Business relationship with the ACQUIRER before their merger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business relationship with the TARGET before their merger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Mergers in The Logistics Industry (a)

### Section 3: Supplier's performance

#### 3. How was the operational performance of your supplier on the following criteria --- in the first 2 years following their merger compared to that before their merger?

	Much worse	Worse	Slightly worse	No difference	Slightly better	Better	Much better
Speed of delivery	<input type="radio"/>						
Operational reliability (e.g. "OTIF" or On Time In Full)	<input type="radio"/>						
Operational visibility (e.g. visibility of your shipment status or inventory status)	<input type="radio"/>						

#### 4. What is your evaluation of the following aspects of your supplier's attitude/behaviour --- in the first 2 years following their merger compared to that before their merger?

	Much worse	Worse	Slightly worse	No difference	Slightly better	Better	Much better
Frontline employees' attitude to 'put the customer first'	<input type="radio"/>						
Openness in providing important information	<input type="radio"/>						
Openness to suggestions from your organization	<input type="radio"/>						
Flexibility of their process for handling your request/order	<input type="radio"/>						

#### 5. What is your evaluation of the following aspects of your supplier's account management team (incl. customer service) --- in the first 2 years following their merger compared to that before their merger?

	Much worse	Worse	Slightly worse	No difference	Slightly better	Better	Much better
Product/service knowledge	<input type="radio"/>						
Problem-solving capability	<input type="radio"/>						
Continuity of personnel (e.g. account manager)	<input type="radio"/>						
Frequency of visit to your organization	<input type="radio"/>						
Consistency of information across sources (e.g. account managers, customer service agents and supplier's Web site)	<input type="radio"/>						

#### 6. What is your evaluation of the following aspects of the supplier's product/service offerings --- in the first 2 years following their merger compared to that before their merger?

	Much narrower	Narrower	Slightly narrower	No difference	Slightly broader	Broader	Much broader
Range of products & services	<input type="radio"/>						
Range of customized solutions	<input type="radio"/>						
Geographical coverage	<input type="radio"/>						

## Mergers in The Logistics Industry (a)

### Section 4: Competitive response

**7. How did you perceive responses from your supplier's rivals ... in the first 2 years following their merger compared to that before their merger?**

	Much less	Less	Slightly less	No difference	Slightly more	More	Much more
The number of approaches you received from the supplier's RIVALS	<input type="radio"/>						
Aggressiveness of the approaches you received from the supplier's RIVALS	<input type="radio"/>						
Attractiveness of the propositions (e.g. price and services) you received from the supplier's RIVALS	<input type="radio"/>						

## Mergers in The Logistics Industry (a)

### Section 5: Your reaction

**8. Did your purchase of products/services from the supplier change ... in the first 2 years following their merger compared to that before their merger?**

- Largely decreased
- Decreased
- No difference
- Increased
- Largely Increased

**9. Did your purchase of products/services from the supplier's RIVALS change ... in the first 2 years following the supplier's merger compared to that before their merger?**

- Largely decreased
- Decreased
- No difference
- Increased
- Largely Increased

**10. Did your investment in relationship (e.g. time/effort) with the supplier change ... in the first 2 years following their merger compared to that before their merger?**

- Largely decreased
- Decreased
- No difference
- Increased
- Largely Increased

**11. Did your investment in relationship (e.g. time/effort) with the supplier's RIVALS change ... in the first 2 years following the supplier's merger compared to that before their merger?**

- Largely decreased
- Decreased
- No difference
- Increased
- Largely Increased

## Mergers in The Logistics Industry (a)

### Section 6: Supplier's integration actions

**12. From your knowledge, to what extent were the following functions of your suppliers integrated in the first 2 years following their merger. If you are not familiar with their actions, please select the "don't know" option.**

**[Legend]**

- **Complete integration:** Functions and activities (of both organisations) are physically consolidated into one.
- **Partial integration:** Functions and activities are coordinated or standardised but not physically consolidated.
- **No integration:** Functions and activities are kept independent.

Operations: Ground operations (e.g. pick-up & delivery or warehouse & inventory management)	<input type="button" value="▼"/>
Operations: Domestic network (I.e. air or surface line-haul transportation)	<input type="button" value="▼"/>
Operations: International network (I.e. air or surface line-haul transportation)	<input type="button" value="▼"/>
Information systems: Operational systems (e.g. systems providing shipment status or inventory status)	<input type="button" value="▼"/>
Information systems: Management reporting systems (e.g. periodical performance reporting)	<input type="button" value="▼"/>
Information systems: Billing systems	<input type="button" value="▼"/>
Marketing: Brand names	<input type="button" value="▼"/>
Marketing: Products and services	<input type="button" value="▼"/>
Marketing: Prices (e.g. harmonization of pricing)	<input type="button" value="▼"/>
Salesforce: Account management	<input type="button" value="▼"/>
Salesforce: Sales support teams	<input type="button" value="▼"/>
Salesforce: Customer service	<input type="button" value="▼"/>

## Mergers in The Logistics Industry (a)

### Section 7: Background - Importance and complexity of purchase

**13. How do you assess the importance of purchasing transportation & logistics services, from the following standpoints, compared to that of other categories of goods/services purchased by your organisation?**

	Much less important	Less Important	No difference	More Important	Much more important
Strategic standpoint	<input type="radio"/>				
Financial standpoint	<input type="radio"/>				
Operational standpoint	<input type="radio"/>				

**14. How do you assess the complexity of purchasing transportation & logistics services, in the following areas, compared to that of other categories of goods/services purchased by your organisation?**

	Much simpler	Simpler	No difference	More complex	Much more complex
Your needs	<input type="radio"/>				
Supplier's products & services	<input type="radio"/>				
Your purchasing decision making process	<input type="radio"/>				

## Mergers in The Logistics Industry (a)

### Section 8: About your organisation and yourself

About your organisation:

#### 15. What is the principal industry of your organization?

- Automotive and Aerospace
- Chemicals and Healthcare/Life Sciences
- Communications and High Tech
- Engineering and Manufacturing
- Financial & Professional Services
- FMCG
- Government & Public Services
- Oil and Energy
- Retail
- Transportation & logistics services
- Other

#### 16. How many employees are there in your organization (all the business units, worldwide)?

- |                                 |                                     |
|---------------------------------|-------------------------------------|
| <input type="radio"/> < 250     | <input type="radio"/> 1,000 - 4,999 |
| <input type="radio"/> 250 - 499 | <input type="radio"/> 5,000 - 9,999 |
| <input type="radio"/> 500 - 999 | <input type="radio"/> > 10,000      |

About yourself:

#### 17. Where were you based when your supplier's merger took place?

- |                                     |   |
|-------------------------------------|---|
| <input type="radio"/> Europe        | <input type="radio"/> Asia Pacific      |
| <input type="radio"/> North America | <input type="radio"/> Rest of The World |

#### 18. What was your area of responsibility when your supplier's merger took place?

- Domestic business only
- International business only
- Domestic and International business

#### 19. What was your role for the transportation & logistics services when your supplier's merger took place?

- |   |  |
|---|--|
| <input type="radio"/> Purchasing decision maker | <input type="radio"/> User of the services |
| <input type="radio"/> Purchasing Influencer     | <input type="radio"/> Other                |

## Appendix F: Transportation & Logistics Merger File (2005-2010)

Acquirer	Country (HQ location)	Target	Country (HQ + Int'l locations)	Year (deal completion)	Deal in USD mil
<b>Agility</b> (Public Warehousing Company - PWC Logistics was privatized and then renamed to Agility in 2006)	Kuwait	GeoLogistics	UK + world	2005	454
		Transoceanic Shipping	USA	2005	n/a
		Trans-Link Group	Singapore + Asia	2005	n/a
		WTS (World Transport Services)	USA	2007	n/a
<b>A.P. Moeller-Maersk</b>	Denmark	P&O Nedlloyd	UK-NL + world	2005	3,000
		Damco Sea & Air	NL + world	2005	n/a
<b>Ceva</b> (Acquired by Apollo Mgt from TNT in 2006)	UK	EGL (Eagle Global Logistics)	USA + world	2007	2,240
<b>C.H. Robinson Worldwide</b>	USA	LXSI Services	USA	2007	n/a
		Transera International	Canada	2008	n/a
<b>DB Schenker</b>	Germany	BAX Global	USA + world	2007	1,100
<b>Deutsche Post DHL</b> (DP-DHL)	Germany	Blue Dart	India	2005	125
		Exel	UK + world	2005	6,670
<b>DSV</b>	Denmark	Frans Maas	NL + EU	2006	340
		ABX Logistics	Belgium + EU	2008	1,200
<b>Geodis</b> (Acquired by French railway company SNCF in 2008)	France	TNT Freight Management	NL + EU	2006	606
		Rohde & Liesenfeld	Germany + world	2008	117
		Giraud International	France + EU	2010	n/a
<b>Kuehne+Nagel</b>	Switzerland	ACR Logistics (former Hays Logistics)	USA + EU	2005	588
<b>Norbert Dentressangle (ND)</b>	France	Christian Salvesen	UK + EU	2007	493
<b>Ryder Systems</b>	USA	CRSA Logistics	Canada + Asia	2008	n/a
		Total Logistic Control (TLC)	USA	2010	200
<b>Toll Group</b>	Australia	Patrick Corporation	Australia	2006	4,000
		SemCorp Logistics	Singapore + Asia	2006	860
		Sembawang Kimtrans	Singapore + Asia	2007	211
		BALtrans	HK + world	2007	306
		Gluck Forwarding Systems	Australia	2008	31
<b>UPS</b>	USA	Menlo Worldwide Forwarding	USA	2005	260
		Overnite Corp.	USA	2005	1,250
		Lynx Express	UK	2005	97
<b>Uti Worldwide</b>	USA	Market Industries	USA	2006	197

## Appendix G: Data Source

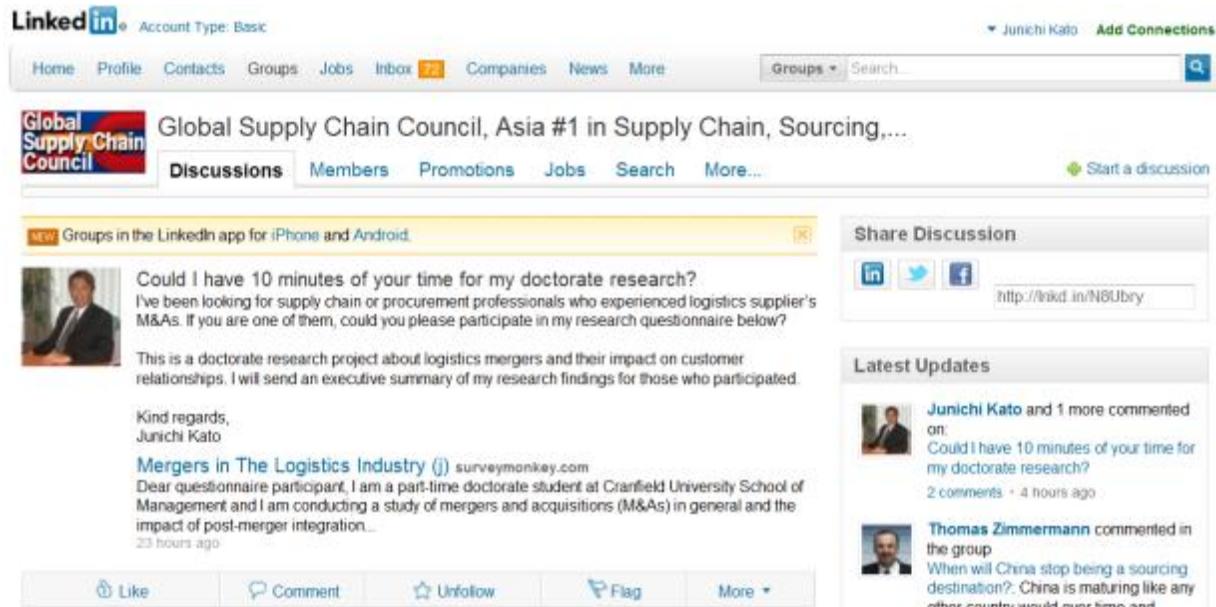
(As of 11<sup>th</sup> September 2011)

Site	Group	# Members
LinkedIn Group	Procurement Professionals	105,916
LinkedIn Group	Logistics & Supply Chain Networking	48,257
LinkedIn Group	Supply Chain Today	46,494
LinkedIn Group	Supply Chain Management	34,730
LinkedIn Group	Strategic Sourcing & Procurement	32,408
LinkedIn Group	Supply Chain Management Practitioners & Experts	23,896
LinkedIn Group	Buyers-World	22,750
LinkedIn Group	ISM - Purchasing & Supply Chain Manager Professionals	16,475
LinkedIn Group	Inspired Supply Chain & Logistics Executives	16,172
LinkedIn Group	SCM Professionals	15,320
LinkedIn Group	Council of Supply Chain Management Professionals	10,759
LinkedIn Group	Supply Chain ASIA	6,283
LinkedIn Group	Logistics Executive	4,969
LinkedIn Group	Logistics & Supply Chain Performance	4,703
LinkedIn Group	Global Supply Chain Council	4,226
LinkedIn Group	Supply Chain Network International	3,450
LinkedIn Group	Supply Chain	3,448
LinkedIn Group	SCN Supply Chain Network	2,953
LinkedIn Group	Operations & Supply Chain Strategy	2,936
LinkedIn Group	Logistics and Supply Chain professionals	2,921
LinkedIn Q&A	Questions & Answers (Open)	n/a
Facebook Group	Supply Chain Management Professionals	3,628
Facebook Group	Supply Chain Group	1,873
Yahoo Group	Supply Chain Management Group	2,085
Google Group	Logistics & Supply Chain Discussion	619
Cranfield University	CMA database	423
Cranfield University	Opportunities to get involved (open)	n/a

## Appendix H: Questionnaire on LinkedIn Groups

One can post a questionnaire on LinkedIn with the following approach:

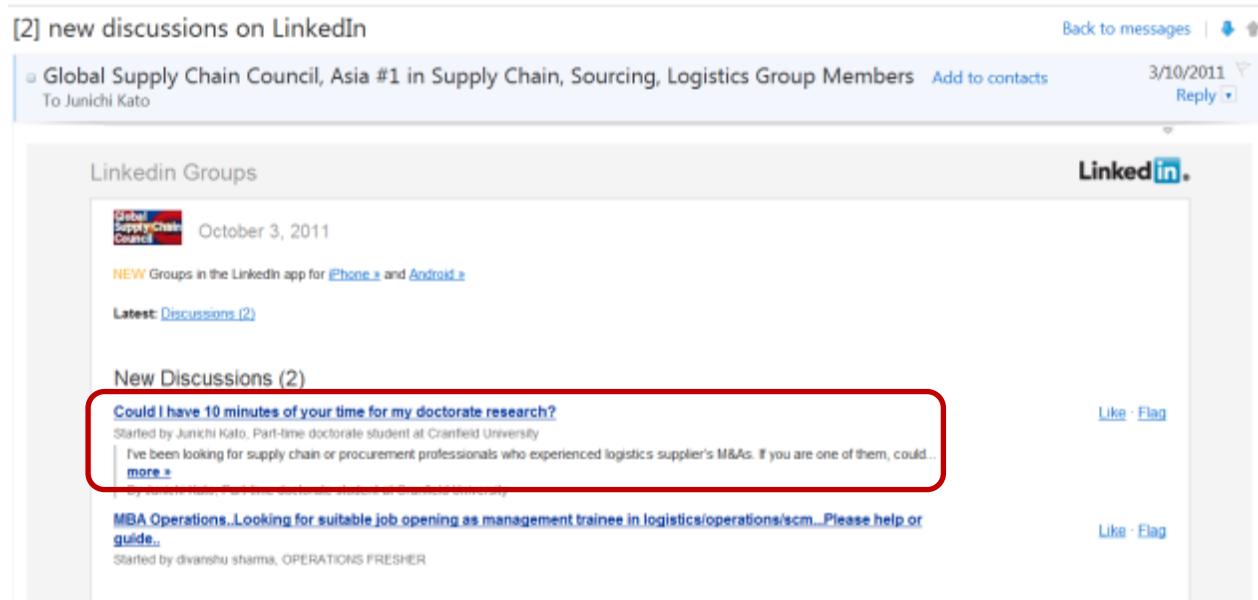
- 1) Use the “discussion” function in the LinkedIn Group and post a discussion (or message) with a link to the questionnaire:



The screenshot shows the LinkedIn interface for the 'Global Supply Chain Council' group. A discussion post from Junichi Kato is highlighted. The post asks for 10 minutes of time for a doctorate research project, mentioning M&As and their impact on customer relationships. It includes a survey link and表达了感谢 (Thank you). The post has received 2 comments and was made 23 hours ago. The right sidebar shows latest updates from other group members.



- 2) Summary of discussions and other activities is sent to the Group members by email (daily or weekly, depending on each member's preferred set-up):



The screenshot shows an email inbox with a message from the 'Global Supply Chain Council' group. The message subject is '[2] new discussions on LinkedIn'. The email body summarizes two discussions posted by Junichi Kato. One discussion is highlighted with a red box, showing a snippet of the post content about M&As and a link to a survey.



- 3) Once the message gets attention from the group members, discussions are developed on the site, which enables/drives less active members to respond (although this is not always the case for all the social networking sites):

The screenshot shows a LinkedIn group discussion titled "Logistics Executive - The role of your global supply chain". A member named "David" has posted a message asking for survey participation. Several other members have responded, including "Suresh", "Rakesh", "Kiran", "Shankar", "Rajesh", and "Sandeep". Each response includes a small profile picture and a brief message.

**David's Post:**

I completed your survey and sent through a couple of links ago.  
David Kato, PhD

**Suresh's Response:**

Hi David, I am not in a position to forward your questionnaire to my network. Please forward it to me.

**Rakesh's Response:**

Hi David, I am on the wrong list. You should probably indicate that the survey is only for logistics executives. I am not in a position to forward it to my network, but do not worry, I know who were actually in it.

**Kiran's Response:**

I can assist you, please attach content for review.

**Shankar's Response:**

Hi David,  
I am the opportunity to go with your questionnaire - please attach it to the content of this email. I will forward it to my network.

**Rajesh's Response:**

Hi David, I am happy to forward your questionnaire to my network.

**Sandeep's Response:**

Hi David, I am happy to forward your questionnaire to my network.

## Appendix I: Questionnaire on Alternative Sites

One can also post a questionnaire on alternative sites as follows:

### LinkedIn Questions & Answers

Use the “questions & answers” function (open for all the LinkedIn members) and post a question (or request) with a link to the questionnaire. Unlike LinkedIn Groups, there is no service like email notification to the members.

Your question closes in 7 days:  
 \* Forward this question  
 Close Question Now

**Could you participate in my doctorate survey on logistics M&As?**

I am a part-time doctorate student at Cranfield University, currently conducting a study of M&As in the logistics industry and their impact on customer relationships.

Supply chain or procurement professionals, who experienced their logistics providers' mergers, are ideal participants for this questionnaire.

I would be very grateful if you could take 10 minutes to fill in my questionnaire through the link below. I would be happy to send an executive summary of the findings later this year.

[https://www.surveymonkey.com/s/Cranfield\\_JKato\\_k](https://www.surveymonkey.com/s/Cranfield_JKato_k)

Kind regards,

posted 2 minutes ago in Supply Chain Management | Clarify my question

### Facebook Groups

Same concept as LinkedIn Groups but there is no service like email notification to the members.

**Supply Chain**

Wall Info Photos Discussions

Share: Post Photo Link Video

Write something...

**Junichi Kato** Could you participate in my doctorate survey on logistics M&As?

Supply chain or procurement professionals, who experienced their logistics providers' mergers, are ideal participants for this questionnaire.

I would be very grateful if you could take 10 minutes to fill in my questionnaire through this link: [https://www.surveymonkey.com/s/Cranfield\\_JKato\\_p](https://www.surveymonkey.com/s/Cranfield_JKato_p)

...

See more

**Mergers in The Logistics Industry (p) Survey**  
[www.surveymonkey.com](http://www.surveymonkey.com)

6 seconds ago · Like · Comment · Share

## Google Groups — Web-based discussion and mailing list

Send a message with a link to the questionnaire to the group members through the mailing list:

New | Reply | Reply all | Forward | Delete | Junk | Sweep ▾ | Mark as ▾ | Move to ▾ |  

[lscms] Digest for lscms@googlegroups.com - 1 Message in 1 Topic Back to messages |  

lscms@googlegroups.com [Add to contacts](#) 29/9/2011 

To Digest Recipients [Reply](#) 

**Today's Topic Summary**  
Group: <http://groups.google.com/group/lscms/topics>

- [Have you experienced your logistics suppliers' mergers?](#) [1 Update]

**Topic: Have you experienced your logistics suppliers' mergers?**  
Jun <[junichi.kato@hotmail.com](mailto:junichi.kato@hotmail.com)> Sep 25 03:31AM -0700 ^

If you have, could you please take 10 minutes to fill in my questionnaire through the link below?  
I've got some valuable inputs from the group members so far but I need more in order to statistically analyze the data...  
  
This is an academic study of M&As in the logistics industry and their impact on customer relationships. Executive summary of my research findings will be shared later this year.  
  
[https://www.surveymonkey.com/s/Cranfield\\_JKato\\_u](https://www.surveymonkey.com/s/Cranfield_JKato_u)

Kind regards,  
Jun



The message sent to the mailing list is also shown in the online discussion site, where even non-members can access and respond to the discussion/message:

Google groups More +

[Groups Home](#)

**Logistics & Supply Chain Discussion**

**Home** New since last time: 2 messages

[Discussions](#) 9 of 1279 messages: [view all »](#) [+ new post](#)

**Have you experienced your logistics suppliers' mergers?** By Jun - Oct 1 - 2 authors - 3 replies

[\[no subject\]](#) By Apoorv Mittal - Sep 30 - 2 authors - 3 replies

[Vistalogix Global will be a Premier Sponsor of IBM's Smarter Commerce Global Summit 2011 in San Diego, September 19 – 21](#) By Jean Carl - Sep 20 - 1 author - 0 replies

[Vistalogix Global Teams with IBM to Help Companies Across a Broad Range of Industries Embrace Smarter Commerce](#) By Jean Carl - Sep 20 - 1 author - 0 replies

["Effective Negotiation Skills" course in Bangkok, Thailand, 7-9 December 2011](#) By Eric Ngk - Sep 17 - 1 author - 0 replies

[Could you help me for my doctorate survey on logistics M&As?](#) By Jun - Sep 16 - 1 author - 0 replies

[\[no subject\]](#) By Leonard - Sep 16 - 1 author - 1 reply

["Effective Tender Management" course in Bangkok, Thailand, 2-4 November 2011](#) By Eric Ngk - Sep 8 - 1 author - 0 replies

[\[no subject\]](#) By Leonard - Sep 7 - 1 author - 0 replies

[Report this group](#) Send email to this group: [lscms@googlegroups.com](mailto:lscms@googlegroups.com)

[Create a group](#) · [Google Groups](#) · [Google Home](#) · [Terms of Service](#) · [Privacy Policy](#)

## Appendix J: Survey Respondents by Data Source

Site	Group	No. of Members	( a ) Total Responses	( b ) Usable Responses	( c ) Completion Rate	(b/a ) # Responses / # Members
LinkedIn	Logistics Executive	4,969	38	24	63%	0.8%
LinkedIn	Supply Chain ASIA	6,283	21	14	67%	0.3%
LinkedIn	Global Supply Chain Council	4,226	25	14	56%	0.6%
LinkedIn	Logistics & Supply Chain Networking	48,257	17	10	59%	0.0%
LinkedIn	Council of Supply Chain Management Professionals	10,759	17	10	59%	0.2%
LinkedIn	Supply Chain Today	46,494	12	9	75%	0.0%
LinkedIn	Inspired Supply Chain & Logistics Executives	16,172	14	8	57%	0.1%
LinkedIn	Questions & Answers (Open)	n/a	11	7	64%	n/a
Cranfield	CMA database	423	10	7	70%	2.4%
LinkedIn	Strategic Sourcing & Procurement	32,408	10	6	60%	0.0%
LinkedIn	Supply Chain Management Practitioners & Experts	23,896	14	5	36%	0.1%
LinkedIn	Buyers-World	22,750	6	4	67%	0.0%
LinkedIn	Logistics and Supply Chain professionals	2,921	7	4	57%	0.2%
LinkedIn	Operations & Supply Chain Strategy	2,936	12	4	33%	0.4%
LinkedIn	SCM Professionals	15,320	7	3	43%	0.0%
Google Groups	Logistics & Supply Chain Discussion	619	4	2	50%	0.6%
LinkedIn	Supply Chain Network International	3,450	7	2	29%	0.2%
LinkedIn	Logistics & Supply Chain Performance	4,703	5	2	40%	0.1%
LinkedIn	Supply Chain Management	34,730	1	1	100%	0.0%
LinkedIn	SCN Supply Chain Network	2,953	4	1	25%	0.1%
Facebook	Supply Chain Management Professionals	3,628	2	1	50%	0.1%
Cranfield	Opportunities to get involved (Open)	n/a	2	1	50%	n/a
LinkedIn	Procurement Professionals	105,916	7	0	0%	0.0%
Facebook	Supply Chain	1,873	1	0	0%	0.1%
Yahoo Groups	Supply Chain Management	2,085	1	0	0%	0.0%
LinkedIn	ISM - Purchasing & Supply Chain Manager Professionals	16,475	0	0	n/a	n/a
LinkedIn	Supply Chain	3,448	0	0	n/a	n/a
<b>Total:</b>		<b>412,725</b>	<b>255</b>	<b>139</b>	<b>55%</b>	<b>0.1%</b>

## Appendix K: Profile of the Survey Respondents

No. of respondents by industry

Industry	Total
Transportation & logistics services	41
Engineering and Manufacturing	23
FMCG	13
Communications and High Tech	10
Chemicals & Healthcare/Life Sciences	10
Oil and Energy	7
Automotive and Aerospace	5
Retail	4
Financial & Professional Services	2
Other	11
(blank)	13
<b>Total</b>	<b>139</b>

No. of respondents by company size (number of employees)

No. Employees	Total
> 10,000	45
1,000 - 4,999	24
< 250	23
500 - 999	16
250 - 499	11
5,000 - 9,999	7
(blank)	13
<b>Total</b>	<b>139</b>

No. of respondents by region

Region	Total
Asia Pacific	51
North America	43
Europe	23
Rest of The World	10
(blank)	12
<b>Total</b>	<b>139</b>

No. of respondents by responsibility

Responsibility	Total
Domestic and international business	85
Domestic business only	23
International business only	19
(blank)	12
<b>Total</b>	<b>139</b>

No. of respondents by role

Role	Total
Purchasing decision maker	49
Purchasing influencer	31
User of the services	27
Other	20
(blank)	12
<b>Total</b>	<b>139</b>

## Appendix L: Estimated Study Population

Acquirer	Division	Divisional Revenue	No of Key Customers	Target	Revenue	No of Key Customers
Deutsche Post DHL	Logistics	€ 7.9 bn	59 k *	Exel	£ 6.3 bn	63 k *
Ceva	ALL	€ 3.7 bn	28 k *	EGL	\$ 3.2 bn	24 k *
DB Schenker	ALL	€ 8.0 bn	60 k *	BAX Global	\$ 2.4 bn	12 k *
A.P. Moeller-Maersk	Mærsk-Sealand	\$ 15.8 bn	79 k *	P&O Nedlloyd	\$ 4.0 bn	20 k *
Deutsche Post DHL	Express India	€ 80 mil	6 k *	Blue Dart	\$ 100 mil	5 k *
UPS	Freight	0	0 k	Overnite Corp.	\$ 1.2 bn	60 k
A.P. Moeller-Maersk	Maersk Logistics	\$ 0.5 bn	3 k *	Damco Sea & Air	\$ 2.7 bn	10 k
Ryder Systems	ALL	\$ 4.9 bn	25 k *	Total Logistic Control	\$ 250 mil	1 k *
C.H. Robinson WW	Transport	\$ 6.8 bn	36 k	LXSI Services	\$ 25 mil	1 k *
UPS	Forwarding	\$ 2.4 bn	12 k *	Menlo WW Forwarding	\$ 2.2 bn	11 k *

Source: The companies' annual reports, Supply Chain Leaders Intelligence ([www.supplychainleaders.com](http://www.supplychainleaders.com)) and Transport Intelligence (2006)

\* Estimated from its divisional revenue and industry average revenue per customer

Total 307 k

Total 208 k



Estimated population	221 k
----------------------	-------

Acquirer + Target (top-10 only)	515 k	# companies
Total (above / 0.7)	735 k	# companies
Total x 10% (key customers)	74 k	# companies
Final (above x 3 -- DM, IN, U)	221 k	# people
Representativeness (139 / 221k)	0.1%	

## Appendix M: Independent t-Test (Early vs. Late Respondents)

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Acquier	Equal variances assumed	.079	.780	-.627	102	.532	-.135	.215	-.561 .291
	Equal variances not assumed			-.627	101.861	.532	-.135	.215	-.561 .291
Target	Equal variances assumed	.845	.361	-.907	85	.367	-.195	.215	-.623 .233
	Equal variances not assumed			-.909	84.989	.366	-.195	.215	-.622 .232
Speed	Equal variances assumed	.608	.437	-.012	132	.991	-.003	.223	-.455 .449
	Equal variances not assumed			-.012	131.233	.991	-.003	.228	-.454 .449
Reliability	Equal variances assumed	.198	.657	-.006	133	.996	-.001	.235	-.465 .463
	Equal variances not assumed			-.006	132.995	.996	-.001	.235	-.465 .463
Visibility	Equal variances assumed	.005	.942	.012	132	.991	.003	.262	-.516 .522
	Equal variances not assumed			.012	131.331	.991	.003	.263	-.516 .523
Cust_1st	Equal variances assumed	.173	.678	-.210	134	.834	-.047	.225	-.492 .398
	Equal variances not assumed			-.210	133.800	.834	-.047	.224	-.491 .397
Open_info	Equal variances assumed	.187	.666	-.1162	135	.247	-.283	.244	-.765 .199
	Equal variances not assumed			-.1161	134.630	.247	-.283	.244	-.765 .199
Open_sug	Equal variances assumed	1.417	.236	-1.121	133	.264	-.258	.230	-.714 .197
	Equal variances not assumed			-1.118	129.351	.266	-.258	.231	-.715 .199
Flexibility	Equal variances assumed	.140	.709	-1.300	135	.196	-.332	.256	-.838 .173
	Equal variances not assumed			-1.299	133.943	.196	-.332	.256	-.838 .174
Knowledge	Equal variances assumed	.168	.682	-.251	133	.802	-.057	.227	-.505 .391
	Equal variances not assumed			-.251	132.727	.802	-.057	.227	-.505 .391
Solving	Equal variances assumed	.589	.444	-.224	133	.823	-.059	.262	-.576 .459
	Equal variances not assumed			-.224	128.566	.823	-.059	.262	-.577 .460
Continuity	Equal variances assumed	.338	.562	406	132	.685	.108	.265	-.417 .633
	Equal variances not assumed			406	131.913	.685	.108	.265	-.417 .633
Visit	Equal variances assumed	.000	.983	-.253	129	.801	-.063	.250	-.558 .431
	Equal variances not assumed			-.253	128.737	.801	-.063	.250	-.558 .431
Consistent	Equal variances assumed	.008	.928	-.641	132	.523	-.157	.246	-.643 .329
	Equal variances not assumed			-.640	130.997	.523	-.157	.246	-.644 .329
Range_P	Equal variances assumed	1.782	.184	-1.669	136	.097	-.350	.210	-.766 .065
	Equal variances not assumed			-1.667	133.418	.098	-.350	.210	-.766 .065
Range_S	Equal variances assumed	.024	.878	-1.720	134	.088	-.376	.218	-.808 .056
	Equal variances not assumed			-1.715	130.766	.089	-.376	.219	-.809 .058
Geo_cov	Equal variances assumed	.078	.780	-1.255	134	.212	-.254	.202	-.653 .146
	Equal variances not assumed			-1.256	133.733	.211	-.254	.202	-.653 .146
ApproachR	Equal variances assumed	.396	.530	-2.319	131	.022	-.456	.197	-.845 .067
	Equal variances not assumed			-2.320	130.692	.022	-.456	.197	-.845 .067
AggressR	Equal variances assumed	.167	.684	-2.365	129	.020	-.469	.198	-.861 .077
	Equal variances not assumed			-2.368	128.969	.019	-.469	.198	-.860 .077
AttractR	Equal variances assumed	.472	.493	-2.466	130	.015	-.513	.208	-.925 .102
	Equal variances not assumed			-2.461	125.689	.015	-.513	.209	-.926 .100
Purchase	Equal variances assumed	.300	.585	.582	128	.562	.092	.159	-.221 .406
	Equal variances not assumed			.582	127.447	.562	.092	.159	-.221 .406
Purch_R	Equal variances assumed	1.092	.298	-.315	128	.754	-.046	.147	-.336 .244
	Equal variances not assumed			-.315	127.092	.754	-.046	.147	-.336 .244
Relation	Equal variances assumed	.487	.487	.403	126	.688	.064	.160	-.252 .381
	Equal variances not assumed			.402	124.223	.688	.064	.160	-.253 .382
Relation_R	Equal variances assumed	.308	.580	1.114	128	.267	.169	.152	-.131 .470
	Equal variances not assumed			1.114	127.884	.267	.169	.152	-.131 .470
GroundOPS	Equal variances assumed	.209	.648	-1.340	115	.183	-.177	.132	-.439 .085
	Equal variances not assumed			-1.336	111.716	.184	-.177	.133	-.440 .086
DomNet	Equal variances assumed	.014	.904	-1.083	107	.281	-.150	.138	-.423 .124
	Equal variances not assumed			-1.081	105.557	.282	-.150	.138	-.424 .125
IntNet	Equal variances assumed	.400	.529	-.028	101	.977	-.004	.147	-.295 .287
	Equal variances not assumed			-.028	100.998	.977	-.004	.146	-.295 .286
OPS_sys	Equal variances assumed	.277	.600	-.223	119	.824	-.032	.142	-.312 .249
	Equal variances not assumed			-.223	118.065	.824	-.032	.141	-.312 .249
Mgt_sys	Equal variances assumed	.624	.431	.729	110	.467	.100	.137	-.172 .373
	Equal variances not assumed			.729	108.958	.468	.100	.138	-.172 .373
Bill_sys	Equal variances assumed	.382	.538	-.555	113	.580	-.086	.154	-.391 .220
	Equal variances not assumed			-.556	111.814	.579	-.086	.154	-.391 .220
Brand	Equal variances assumed	.024	.876	.912	117	.364	.118	.129	-.138 .374
	Equal variances not assumed			.912	116.853	.364	.118	.129	-.138 .374
Products	Equal variances assumed	.511	.476	-.870	120	.386	-.104	.120	-.341 .133
	Equal variances not assumed			-.864	114.262	.389	-.104	.120	-.342 .134
Prices	Equal variances assumed	.505	.479	-.748	106	.456	-.116	.155	-.423 .191
	Equal variances not assumed			-.749	104.376	.455	-.116	.155	-.422 .191
AccountMgt	Equal variances assumed	1.193	.277	-1.055	113	.293	-.151	.143	-.434 .132
	Equal variances not assumed			-1.054	111.213	.294	-.151	.143	-.435 .133
SalesSup	Equal variances assumed	.148	.701	-1.753	113	.082	-.245	.140	-.523 .032
	Equal variances not assumed			-1.743	107.799	.084	-.245	.141	-.524 .034
CS	Equal variances assumed	1.116	.293	-.457	113	.648	-.062	.136	-.332 .207
	Equal variances not assumed			-.460	112.826	.647	-.062	.135	-.331 .206
Strategic	Equal variances assumed	.617	.434	-.290	125	.772	-.046	.160	-.363 .270
	Equal variances not assumed			-.290	123.867	.772	-.046	.160	-.363 .270
Financial	Equal variances assumed	.042	.838	-.190	125	.850	-.031	.163	-.354 .292
	Equal variances not assumed			-.190	124.971	.850	-.031	.163	-.354 .292
Operational	Equal variances assumed	.001	.974	0.000	124	1.000	0.000	.147	-.290 .290
	Equal variances not assumed			0.000	124.000	1.000	0.000	.146	-.290 .290
Needs	Equal variances assumed	.092	.763	1.182	125	.239	.178	.151	-.120 .477
	Equal variances not assumed			1.183	124.858	.239	.178	.151	-.120 .477
Supplier	Equal variances assumed	.034	.854	1.160	123	.248	.166	.143	-.118 .450
	Equal variances not assumed			1.160	122.940	.248	.166	.143	-.118 .450
DM_process	Equal variances assumed	4.713	.032	425	124	.671	.073	.173	-.268 .415
	Equal variances not assumed			428	120.669	.669	.073	.171	-.266 .413

## Appendix N: Validation of the Perceived Extent of Integration

The table below shows the ‘perceived’ extent of integration by function at global basis for the top-10 merger cases. The merger cases were analysed to validate the survey respondents’ perceptions of the extent of integration through archival data, namely the companies’ annual reports, their public web sites and industry sources. In the DHL-Exel case only, an additional survey of internal company experts was conducted.

	Acquirer	Target	Integration	Perceived Extent of Integration			
				Operations	IT System	Marketing	Salesforce
1	DP-DHL	DE Exel	UK Worldwide	P-I	P-I	P-I	P-I
2	Ceva	UK EGL	US Worldwide	C-I	P-I	C-I	C-I
3	DB Schenker	DE BAX Global	US Worldwide	P-I	P-I	C-I	C-I
4	A.P. Moeller-Maersk	DK P&O Nedlloyd	UK-NL Worldwide	C-I	C-I	P-I	C-I
5	DP-DHL	DE Blue Dart	IN Domestic - IN	P-I	P-I	P-I	P-I
6	UPS	US Overnite	US Domestic - US	P-I	P-I	P-I	P-I
7	A.P. Moeller-Maersk	DK Damco Sea & Air	NL Worldwide	P-I	P-I	P-I	P-I
8	Ryder	US TLC	US Domestic - US	P-I	P-I	P-I	C-I
9	C.H. Robinson	US LXSI	US Domestic - US	P-I	C-I	P-I	P-I
10	UPS	US Menlo Forwarding	US Domestic - US	P-I	P-I	C-I	C-I

C-I Complete Integration (Mean score  $\geq 2.5$ )  
P-I Partial Integration (Mean score 2.5 - 1.5)

### (1) DHL-DHL and Exel

First, the author asked two of the DP-DHL employees (who used to be in charge of the integration in Europe) to assess the actual extent of integration in Europe by function, and then compare the mean score with that of the survey respondents. The table below shows an agreement between the parties in terms of the extent of integration in Europe (no statistical test was conducted due to the limited number of samples):

DP-DHL - Exel	Extent of Integration in EU			
	OPS	IT	MKT	SF
DP-DHL employees (n=2)	2.7	2.0	2.5	3.0
Respondents (n=3)	2.7	2.1	2.5	2.7

Second, the archival data was collected through the Internet and DP-DHL Intranet in order to investigate the overall (global) extent of integration perceived by the respondents. The data below indicates that the integration was intense at Freight Forwarding business and in Europe, while it was rather limited at Contract Logistics business and in other continents. All in all, it would be fair to assess that it was partial integration across all the functions (combination of full and limited integration by business) thus supporting the survey respondents’ perception.

- “There were many good reasons for (DP-DHL) to buy Exel. It has given the company immediate leadership in the UK and the US contract logistics market where its own division was sub-scale... Exel’s freight forwarding operations will be easily absorbed into DHL Global Forwarding...” (Transport Intelligence, 2006: P57).
- “Its (Exel’s) geographical presence in the UK, the USA and Asia complements our presence in continental Europe perfectly. As a result of the move we are strengthening our leading position in the air and ocean freight markets while also gaining expertise in contract logistics. ...we do not expect any particular integration risks” (DP-DHL Annual Report 2005: P71).

- “We have set up dedicated account management teams for key customers” (DP-DHL Annual Report 2006: P32).
- “...management attrition was very low... People have been burning the midnight oil to keep customers happy too, so customer attrition has been very low so far...” ([www.alexanderhughes.com](http://www.alexanderhughes.com), 28-Nov-2006).
- “...it will continue to use the Exel name for warehousing and dedicated contract carriage services” ([www.highbeam.com](http://www.highbeam.com), 09-Jan-2006).
- “The contract logistics business in North America has been operating under the Exel brand” ([www.exel.com](http://www.exel.com)).

## (2) CEVA and EGL

The archival data below indicates that the integration was, in the end, intense globally for all the businesses. Therefore one can conclude that it was complete integration across all the functions thus supporting the survey respondents' perception, except IT system integration — a possible explanation for this is that customers (respondents) do not recognize 'complete' IT system integration between two different businesses (i.e. Freight Forwarding and Contract Logistics).

- “The new company originally retained the Contract Logistics (mainly offered by Ceva) and Freight Management (mainly offered by EGL) businesses as separate divisions, with the exception of Asia-Pacific which tested a model integrating the two businesses at country level. Following a very successful nine-month pilot in that region, the company has now decided to adopt the integrated model globally” (PR Newswire Europe, 17-Jul-2008).
- “After the merger with EGL in 2007, CEVA Logistics started offering integrated logistics services in Contract Logistics and Freight Management” ([Reply@Logistics](mailto:Reply@Logistics), [www.reply.eu](http://www.reply.eu), 20-Jun-2010).
- “One of the key integration goals for the business was to focus on delivering integrated business opportunities. ...both contract logistics and freight management... a ‘one stop supplier’ for all logistics needs... We are pleased to report that... over €550 million of integrated wins” (CEVA Group Annual Report 2009: P16).

## (3) DB Schenker and BAX Global

The archival data below indicates that the integration was intense globally once the plan was executed and thus one can conclude that it was complete integration across all the functions. This supports the survey respondents' perception for Marketing and Salesforce integration but does not fully support for operations and IT system integration — a possible explanation for this is the complementary nature of business territories between the merging parties (i.e. customers cannot recognize full integration actions of operations and IT systems unless both parties have strong presence in their regions/countries).

- “Schenker... most of its revenues (80%) are generated in mainland European operations” (Transport Intelligence, 2006: P141).
- “The acquisition of the forwarder (Bax Global)... will particularly strengthen Schenker’s forwarding operations in the Americas where Bax generates 48% of its sales” (Transport Intelligence, 2006: P144).
- “After two years of careful planning, Schenker, Inc. and BAX Global operations within the USA are fully integrated and doing business under the brand name, DB Schenker... we now offer all the main services from a single source, in Asia, in Europe, and also in the Americas... All USA operations have successfully transitioned to DB Schenker” ([www.dbschenker.com](http://www.dbschenker.com), 06-Mar-2009).

## (4) A.P. Moeller-Maersk and P&O Nedlloyd

The archival data below clearly indicates that it was complete integration across all the functions (with enormous IT system problems), which supports the survey

respondents' perception except marketing integration — no particular explanation can be found for this.

- “*...with this acquisition comes the news that the brand names of P&O Nedlloyd and Maersk Sealand are both to disappear... From March 2006 the two companies will be known simply as Maersk Line... It is expected that the full integration of AP Moller-Maersk A/S and Royal P&O Nedlloyd NV will have been completed in stages by the end of 2006*” (<http://ports.co.za>, 11-Aug-2005).
- “*Maersk Line began the implementation of a new generation of extensive IT systems supporting the sales process... The overlap between the implementation of these IT systems and Maersk Line's integration of P&O Nedlloyd posed unexpectedly large problems*” (A.P. Moller - Maersk Group Annual Report 2006: P8).
- “*P&O Nedlloyd's fleet of about 170 operated container vessels was merged with Maersk Sealand's approximately 340 vessels, creating a route network with increased coverage and frequency...*” (A.P. Moller - Maersk Group Annual Report 2006: P12).
- “*In the three years following the acquisition, there has been... a decrease in the customer-satisfaction at the combined company's liner operations... 18 months after the acquisition, Maersk Line... lost 4% of the combined global market share, or about 22% of their customer base...*” (Danish Business Daily, 03-Jul-2007).
- “*...they introduced a new IT system during the integration process... The new IT system was not ready. Documentation... was full of mistake. Correctness of invoice became a big issue... 20% of all invoices were wrong. It turned out that the acquisition was too big to be immediately integrated into the information systems...*” (Lisch, 2009: P52).
- “*The acquisition of P&O Nedlloyd was too big to be immediately absorbed and included in your information system...*” (Financial Times, 01-Jul-2007).

## (5) DP-DHL and Blue Dart

The archival data below indicates that it was partial integration of all the functions (cooperation of operations, systems and sales activities as well as co-branding), which supports the survey respondents' perception.

- “*We are the first international provider in the industry to now offer our customers our own domestic and international express services in India*” (DP-DHL Annual Report 2005: P28).
- “*Blue Dart... offers secure and reliable delivery of consignments to over 25,498 locations in India. As part of the DHL Group (DHL Express, DHL Global Forwarding & DHL Supply Chain), Blue Dart accesses the largest and most comprehensive express and logistics network worldwide...*” ([www.soti.net](http://www.soti.net)).
- *Five years after the merger (shareholding of 81% in 2006), DHL and Blue Dart are still operating separately under two brands: DHL for international services and DHL-BlueDart for domestic services* ([www.dhl.com.in](http://www.dhl.com.in); [www.bluedart.com](http://www.bluedart.com)).
- *DHL salespeople can sell domestic services that are managed by Blue Dart, while Blue Dart salespeople can sell international services that are managed by DHL* (DHL Corporate Intranet).

## (6) UPS and Overnite

The archival data below indicates that it was partial integration of all the functions (operational performance management, system/sales cooperation and branding), which supports the survey respondents' perception.

- “*UPS extended its product range by acquiring... Overnite Corporation*” (Transport Intelligence, 2006: P154).
- “*...we completed our acquisition of Overnite Corp., now known as UPS Freight, which offers a variety of LTL and truckload services to customers in North America...*” (UPS Annual Report 2006: P27).
- “*Overnite generally reported improvements in its operating performance measures in the post-acquisition period versus the same period a year ago when it was not a part of UPS,*

*including improvements in average daily LTL shipments and average LTL revenue per LTL hundredweight” (UPS Annual Report 2006: P27).*

#### (7) A.P. Moeller-Maersk and Damco Sea & Air

The archival data below indicates that it was partial integration of all the functions considering the complementary nature of the merging parties' main business domains (Far East focus vs. European network and Supply Chain business vs. Freight Forwarding business), which supports the survey respondents' perception.

- “*Maersk Logistics... delivering integrated logistics solutions... focus on... the Far East*” ([www.supplychainleaders.com](http://www.supplychainleaders.com)).
- “*Damco Sea & Air... network within Europe... part of the merged International sea freight... placing greater emphasis on the development of Airfreight*” ([www.supplychainleaders.com](http://www.supplychainleaders.com)).
- “*The A.P. Moller-Maersk Group is all set to merge its supply chain management business (Maersk Logistics) and freight forwarding brand (Damco Sea & Air), under a single brand, Damco. Under the new brand, Damco seeks to provide customers with a wide range of logistics services...*” ([www.logistics-business-review.com](http://www.logistics-business-review.com), 08-Jun-2009).
- “*Together, these facilities have provided a range of services to customers in the region, from basic freight forwarding to advanced supply chain management... Following the merger of these two entities, the entire spectrum of those services will be operated under Damco, although it's basically the same organisation with the same group of employees. The only difference is that customers will find the work processes have been simplified*” ([www.arabiansupplychain.com](http://www.arabiansupplychain.com), 22-Nov-2009).

#### (8) Ryder and TLC

The archival data below indicates that it was a customer/sales-driven merger thus limited integration for all the functions except salesforce, which supports the survey respondents' perception.

- “*The primary benefits from the merger are on the patron side. There weren't any large cost takeouts... we've unequivocally focused on bringing an enhanced value tender to TLC's customers... That's (realization of the synergy effect) probably a great 9-month cycle*” (<http://rentalatruck.com> 03-Aug-2011).
- “*By bringing the TLC organization and operations over to Ryder intact, we are able to immediately deliver best in class supply chain solutions... we will build on TLC's proven and highly regarded... capabilities by integrating client solutions using Ryder's well-established strengths...*” ([www.logisticsmgmt.com](http://www.logisticsmgmt.com), 09-Dec-2010).
- “*TLC brings relationships with 1,000 Fortune 1000 clients into the fold that are in the food, beverage, and CPG sectors, which Ryder's SCS unit has targeted for growth... Acquiring TLC provides Ryder with an increased... customer base*” ([www.logisticsmgmt.com](http://www.logisticsmgmt.com), 09-Dec-2010).

#### (9) C.H. Robinson and LXSI

The archival data below indicates that it was partial integration of all the functions considering the complementary nature of the merging parties' business domains (asset-light 3<sup>rd</sup> party logistics vs. air/expedited services), which supports most of the survey respondents' perception. In terms of IT system, considering the currently available tool on its Web site, it should be fair to conclude that it was complete IT system integration, which also supports survey respondents' perception.

- “*Looking to capitalize on growing market demand for expedited and time definite services, the acquisition of LXSI Services brings a greater depth to C.H. Robinson's existing core capabilities... LXSI ... a strong provider of domestic air and expedited services... C.H. Robinson Worldwide Inc., is one of the largest non-asset based third party logistics companies in the world...*” ([www.thetrucker.com](http://www.thetrucker.com), 15-Aug-2007).

- “...domestic air and expedited knowledge... necessary for us to expand this service into a core offering... This is a great match of complementary services” ([www.layover.com](http://www.layover.com), 15-Aug-2007).
- “We expect to continue integrating LXSI into our domestic network and expand our presence in domestic air-freight...” (<http://seekingalpha.com>, 23-Oct-200).
- “...you can see and manage all your C.H. Robinson shipments — domestically and globally — across every service and mode... you'll be able to tender orders, request quotes, run online reports, view invoices, and more” ([www.chrwonline.com](http://www.chrwonline.com)).

## (10) UPS and Menlo Worldwide Forwarding

The archival data below indicates that it was complete integration across all the functions (with service performance problems), which supports the survey respondents' perception except operations and IT system integration — a possible explanation for this is that customers (respondents) might have expected full operational/IT integration with UPS's Express system and which was not the case.

- “UPS first expanded into the freight forwarding sector in 2001... By adding Menlo Worldwide Freight to its portfolio it will increase its leverage in the market...” (Transport Intelligence, 2006: P154).
- “As a result of the acquisition, UPS will... add guaranteed heavy air freight services... This also means UPS will introduce new time-definite products” (<http://mhlnews.com>, 07-Oct-2004).
- “Officials with UPS said more than 1,000 jobs were eliminated Friday when the company closed its freight hub at Dayton International Airport... the decision to close the facility was made after analyzing significant redundancies that exist between UPS and Menlo Worldwide Forwarding... by integrating the Dayton operations with UPS' existing air networks, the company will be able to provide better and faster service to heavy freight customers while improving efficiency” (<http://www.whiotv.com>, June 30 2006).
- “...the Supply Chain & Freight segment reported \$2 million in operating profit, as compared with a \$156 million in operating profit for 2005. These results were impacted by the integration of the acquired Menlo Worldwide Forwarding business into our air network... The integration of the Menlo Worldwide Forwarding business resulted in increased costs and some lost sales resulting from customer turnover” (UPS Annual Report 2006: P26-27).
- “...customers have been treated to less than satisfactory acquisition results. UPS Supply Chain solutions has had major problems integrating Menlo Forwarding” ([www.logisticsquarterly.com](http://www.logisticsquarterly.com), 07-Feb-2007).

## Appendix O: Correlations between Latent Variables (Pearson Correlations)

	Operational Integration	IT System Integration	Marketing Integration	Salesforce Integration	Pre-merger Relationship	Merger Profile	Service Performance	Product Selection	Customer Orientation	Account Mgt Quality	Competitive Response	Loyalty
Operational Integration	1											
IT System Integration	0.654**	1										
Marketing Integration	0.544*	0.570**	1									
Salesforce Integration	0.657**	0.643**	0.606**	1								
Pre-merger Relationship	-0.256	-0.140	-0.041	-0.205	1							
Merger-Integration Profile	-0.183	0.088	-0.477	-0.187	-0.052	1						
Service Performance	0.231	0.319	0.035	0.060	-0.169	0.022	1					
Product Selection	0.110	-0.048	0.320	-0.035	-0.099	-0.389	0.413*	1				
Customer Orientation	0.442*	0.461*	0.299	0.212	-0.396	-0.079	0.668**	0.428	1			
Account Mgt Quality	0.072	0.094	0.196	0.023	-0.337	-0.336	0.685**	0.681**	0.677*	1		
Competitive Response	-0.427	-0.347	-0.184	-0.118	0.338*	0.129	-0.355	-0.041	-0.448*	-0.178	1	
Loyalty	0.215	0.275	0.006	-0.100	-0.077	0.109	0.711**	0.329	0.364	0.296	-0.349	1

Pearson Correlation: \* p < 0.05 \*\* p < 0.01

Insignificant control variables (Supply Importance and Supply Complexity) are not included

## Appendix P: Constructs, Items and Reliability Scores

Construct	Indicator	Composite Reliability*	Item Reliability**	N	Min	Max	Mean	STD
Operational Integration	Ground operations	0.881	0.910	117	1	3	2.2	.72
	Domestic network		0.831	109	1	3	2.3	.72
	International network		0.785	103	1	3	2.3	.74
IT System Integration	Operational systems	0.773	0.909	121	1	3	2.2	.77
	Management reporting systems		0.669	112	1	3	2.2	.73
	Billing systems		0.587	115	1	3	2.2	.82
Marketing Integration	Brand names	0.716	0.658	119	1	3	2.3	.70
	Products and services		0.830	122	1	3	2.3	.66
Salesforce Integration	Account management	0.920	0.972	115	1	3	2.3	.77
	Sales support teams		0.699	115	1	3	2.3	.76
	Customer service		0.978	115	1	3	2.3	.73
Pre-Merger Relationship	Business with the ACQUIRER before their merger	Formative construct	Formative construct	104	0	3	1.6	1.09
	Business with the TARGET before their merger			87	0	3	1.8	1.00
Merger-Integration Profile	Merger size (segmented by actual transaction value)	0.910	0.876	125	1	4	2.6	1.23
	Merger type (domestic or cross-border)		0.790	125	1	2	1.8	.41
	Integration scope (domestic or cross-border)		0.961	125	1	2	1.7	.47
Service Performance	Speed of delivery	0.968	0.934	134	1	7	3.9	1.32
	Operational reliability		0.969	135	1	7	3.9	1.36
	Operational visibility		0.956	134	1	7	4.1	1.51
Product / Service Selection	Range of products/services	0.845	0.909	138	1	7	4.9	1.24
	Range of solutions/value-added-services		0.951	136	1	7	4.6	1.28
	Geographical coverage		0.501	136	2	7	5.4	1.18
Customer Orientation	Frontline employees' attitude to 'put the customer first'	0.980	0.983	136	1	7	3.9	1.31
	Openness in providing important information		0.977	137	1	7	3.9	1.43
	Openness to suggestions from your organization		0.953	135	1	7	3.9	1.34
	Flexibility of their process for handling your request/order		0.936	137	1	7	3.8	1.50
Account Mgt Quality	Product/service knowledge	0.960	0.904	135	1	7	4.2	1.31
	Problem-solving capability		0.846	135	1	7	4.0	1.52
	Continuity of personnel (e.g. account manager)		0.934	134	1	7	3.6	1.53
	Frequency of visit to your organization		0.919	131	1	7	4.0	1.42
	Consistency of information across sources		0.947	134	1	7	3.9	1.42
Competitive Response	The number of approaches received from the supplier's rivals	0.845	0.790	133	2	7	4.7	1.15
	Aggressiveness of the approaches received from the supplier's rivals		0.794	131	2	7	4.8	1.15
	Attractiveness of the propositions		0.825	132	1	7	4.6	1.22
Loyalty	Purchase of products/services from the supplier	0.891	0.820	130	1	5	2.9	.90
	Purchase of products/services from the supplier's rivals [R]***		0.800	130	1	5	2.8	.83
	Investment in relationship with the supplier's rivals [R]***		0.943	130	1	5	2.8	.87
Rules of Thumb (Henseler et al., 2009; Hair et al., 2011)		Should be > 0.7	Should be > 0.7					

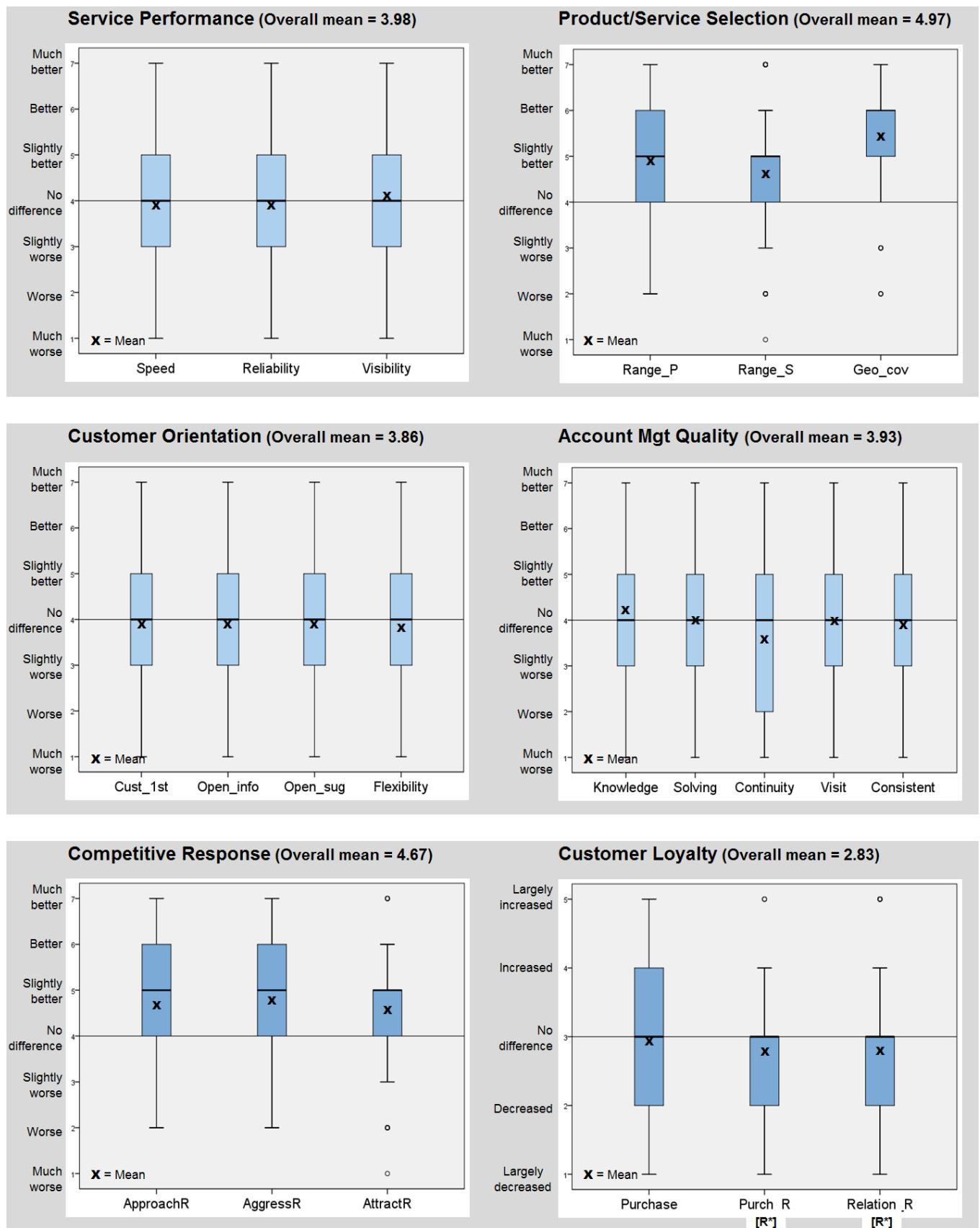
\* Composite reliability  $P_c$  (Werts, et al., 1974, cited in Henseler et al., 2009)

\*\* Item Reliability: Measured by standardized factor loadings

\*\*\* The scale was reversed for analysis as the item was worded in a negative manner for the supplier in study

Insignificant control variables (Supply Importance and Supply Complexity) are not included

## Appendix Q: Perceived Changes in Key Variables (Box-plot Graph)



\* The scale was reversed for analysis as the item was worded in a negative manner

## Appendix R: Validity Scores

### Average Variance Extracted (AVE)

	AVE
Operational Integration	0.712
IT System Integration	0.540
Marketing Integration	0.561
Salesforce Integration	0.796
Merger-Integration Profile	0.771
Service Performance	0.909
Product Selection	0.660
Customer Orientation	0.926
Account Mgt Quality	0.829
Competitive Response	0.645
Loyalty	0.733
Rules of Thumb (Henseler et al., 2009; Hair et al., 2011)	Should be > 0.5

Formative variable (Pre-merger Relationship) is not included

Insignificant control variables are not included

### Fornell-Larcker Criterion

#### AVE\* and Squared Correlations (Pearson Correlations) between Latent Variables

	Operational Integration	IT System Integration	Marketing Integration	Salesforce Integration	Merger Profile	Service Performance	Product Selection	Customer Orientation	Account Mgt Quality	Competitive Response	Loyalty
Operational Integration	<b>0.712 *</b>	0.428	0.296	0.431	0.033	0.053	0.012	0.196	0.005	0.182	0.046
IT System Integration	0.428	<b>0.540 *</b>	0.325	0.414	0.008	0.102	0.002	0.212	0.009	0.120	0.076
Marketing Integration	0.296	0.325	<b>0.561 *</b>	0.367	0.228	0.001	0.103	0.089	0.038	0.034	0.000
Salesforce Integration	0.431	0.414	0.367	<b>0.796 *</b>	0.035	0.004	0.001	0.045	0.001	0.014	0.010
Merger-Integration Profile	0.033	0.008	0.228	0.035	<b>0.771 *</b>	0.001	0.152	0.006	0.113	0.017	0.012
Service Performance	0.053	0.102	0.001	0.004	0.001	<b>0.909 *</b>	0.171	0.446	0.469	0.126	0.505
Product Selection	0.012	0.002	0.103	0.001	0.152	0.171	<b>0.660 *</b>	0.183	0.463	0.002	0.108
Customer Orientation	0.196	0.212	0.089	0.045	0.006	0.446	0.183	<b>0.926 *</b>	0.458	0.201	0.133
Account Mgt Quality	0.005	0.009	0.038	0.001	0.113	0.469	0.463	0.458	<b>0.829 *</b>	0.032	0.087
Competitive Response	0.182	0.120	0.034	0.014	0.017	0.126	0.002	0.201	0.032	<b>0.645 *</b>	0.122
Loyalty	0.046	0.076	0.000	0.010	0.012	0.505	0.108	0.133	0.087	0.122	<b>0.733 *</b>

\* Average Variance Extracted (AVE) is shown on diagonal — The rests are squared Pearson correlations

Formative construct (Pre-merger Relationship) is not included

Insignificant control variables (Supply Importance and Supply Complexity) are not included

## Appendix S: Cross-Loadings (Standardized Factor Loadings)

Constructs → Items ↓	OPS Integration	IT System Integration	MKT Integration	Salesforce Integration	Pre-merger Relation	Merger Profile	Service Performance	Product Selection	Customer Orientation	Account Mgt Quality	Competitive Response	Loyalty
GroundOPS	0.910	0.582	0.605	0.695	-0.317	-0.322	0.307	0.082	0.549	0.214	-0.339	0.205
DomNet	0.831	0.589	0.526	0.462	0.004	-0.019	0.190	0.060	0.286	-0.057	-0.299	0.374
IntNet	0.785	0.386	0.233	0.466	-0.301	-0.078	0.080	0.136	0.254	0.006	-0.403	0.033
OPS_sys	0.551	0.909	0.389	0.493	-0.105	0.083	0.334	-0.038	0.435	0.113	-0.360	0.309
Mgt_sys	0.409	0.669	0.509	0.509	-0.197	0.132	0.225	-0.084	0.366	0.111	-0.140	0.099
Bill_sys	0.693	0.587	0.657	0.640	0.062	-0.159	-0.064	0.015	0.041	-0.198	-0.202	0.130
Brand	0.460	0.402	0.658	0.317	0.101	-0.417	0.114	0.111	0.157	0.094	-0.295	0.000
Products	0.376	0.460	0.830	0.566	-0.129	-0.320	-0.038	0.352	0.278	0.195	-0.003	-0.009
AccountMgt	0.650	0.614	0.552	0.972	-0.164	-0.062	0.066	-0.042	0.192	0.007	-0.131	-0.047
SalesSup	0.519	0.443	0.423	0.699	-0.242	-0.120	-0.208	-0.338	0.048	-0.185	0.013	-0.216
CS	0.627	0.558	0.628	0.978	-0.217	-0.293	0.079	0.012	0.230	0.063	-0.112	-0.135
Acquier	-0.069	-0.028	-0.147	-0.247	0.557	0.178	0.144	0.017	-0.233	-0.150	0.360	0.262
Target	-0.222	-0.130	0.096	0.015	0.590	-0.240	-0.338	-0.142	-0.222	-0.231	0.028	-0.368
Merger_size	-0.310	-0.015	-0.441	-0.259	0.036	0.876	0.224	-0.245	-0.098	-0.188	0.159	0.263
Merger_type	0.022	0.039	-0.511	-0.213	-0.177	0.790	0.088	-0.233	0.102	-0.202	-0.203	0.071
Imp_scope	-0.153	0.142	-0.394	-0.106	-0.055	0.961	-0.120	-0.462	-0.119	-0.407	0.171	0.042
Speed	0.123	0.261	-0.089	-0.034	-0.133	0.121	0.934	0.254	0.589	0.540	-0.316	0.750
Reliability	0.263	0.320	0.105	0.064	-0.134	-0.040	0.969	0.479	0.696	0.725	-0.364	0.675
Visibility	0.288	0.325	0.089	0.175	-0.240	-0.023	0.956	0.425	0.627	0.701	-0.297	0.576
Range_P	0.067	-0.138	0.303	0.024	-0.244	-0.339	0.178	0.909	0.377	0.626	0.085	0.083
Range_S	0.146	-0.038	0.362	-0.018	-0.041	-0.423	0.476	0.951	0.337	0.669	-0.023	0.370
Geo_cov	0.004	0.108	0.014	-0.108	0.054	-0.088	0.325	0.501	0.401	0.296	-0.151	0.335
Cust_1st	0.432	0.468	0.300	0.202	-0.398	-0.015	0.611	0.370	0.983	0.624	-0.437	0.341
Open_info	0.468	0.469	0.319	0.220	-0.433	-0.010	0.685	0.459	0.977	0.630	-0.463	0.427
Open_sug	0.407	0.479	0.309	0.236	-0.385	-0.137	0.675	0.407	0.953	0.716	-0.315	0.286
Flexibility	0.390	0.342	0.219	0.168	-0.298	-0.147	0.597	0.370	0.936	0.638	-0.464	0.396
Knowledge	0.100	-0.051	0.155	0.070	-0.240	-0.450	0.654	0.726	0.552	0.904	-0.141	0.373
Solving	0.251	0.184	0.339	0.138	-0.123	-0.289	0.563	0.738	0.502	0.846	-0.059	0.215
Continuity	-0.017	0.094	0.128	-0.088	-0.397	-0.257	0.704	0.602	0.615	0.934	-0.238	0.325
Visit	-0.034	0.057	0.125	-0.038	-0.391	-0.232	0.573	0.537	0.699	0.919	-0.082	0.187
Consistent	0.098	0.204	0.223	0.103	-0.332	-0.267	0.600	0.529	0.714	0.947	-0.159	0.178
ApproachR	-0.222	-0.219	-0.040	-0.101	0.319	-0.100	-0.072	0.161	-0.261	0.086	0.790	-0.119
AggressR	-0.163	-0.292	0.007	-0.121	0.163	-0.126	-0.273	0.253	-0.245	0.013	0.794	-0.252
AttractR	-0.475	-0.302	-0.257	-0.086	0.298	0.283	-0.385	-0.224	-0.457	-0.307	0.825	-0.392
Purchase	0.060	0.123	0.110	-0.111	-0.008	-0.080	0.580	0.390	0.157	0.268	-0.167	0.820
Purch_R	0.343	0.239	-0.111	-0.128	-0.252	0.175	0.460	0.220	0.405	0.210	-0.459	0.800
Relation_R	0.197	0.338	-0.009	-0.029	-0.009	0.194	0.743	0.201	0.394	0.274	-0.285	0.943

Standardized factor loadings — Items linking to their respective latent variable are highlighted

Items for the insignificant control variables (Supply Importance and Supply Complexity) are not included

## Appendix T: Assessment of Formative Measurement Model

### Weights and Loadings

	Path	Sample Mean	Standard Deviation	T Statistics	Sig.
Weights	Acquierer -> PreM_Rel	0.547	0.246	2.259	< 0.05
	Target -> PreM_Rel	0.553	0.262	2.250	< 0.05
Loadings	Acquierer -> PreM_Rel	0.814	0.244	3.525	< 0.01
	Target -> PreM_Rel	0.835	0.193	4.579	< 0.01
		Rules of Thumb (Hair et al., 2011)	Should be > 1.65		

### Coefficients<sup>a</sup> and VIF

Model	Collinearity Statistics	
	Tolerance	VIF
1 Target	1.000	1.000
1 Acquirer	1.000	1.000
Rules of Thumb (Hair et al., 2011)	Should be < 5.0	

a. Dependent Variable: Acquirer

a. Dependent Variable: Target

## Appendix U: Total Effects (Path Coefficients, Mean, STDEV, T-stat. and R<sup>2</sup>)

	R Square
Service Performance	0.118
Product Selection	0.195
Customer Orientation	0.182
Account Mgt Quality	0.250
Competitive Response	0.343
Loyalty	0.633
Rules of Thumb (Henseler et al., 2009; Hair et al., 2011)	0.67: Substantial 0.33: Moderate 0.19: Weak

Insignificant control variables are not included

Exogenous Latent Variable	Endogenous Latent Variable	Path Coefficients	Sample Mean	Standard Deviation	T Statistics	Sig.
OPS Integration	Service Performance	-0.002	0.094	0.071	0.022	---
	Competitive Response	-0.380	-0.326	0.130	2.698	< 0.01
IT Integration	Service Performance	0.303	0.308	0.093	3.189	< 0.01
	Competitive Response	-0.452	-0.404	0.149	3.037	< 0.01
MKT Integration	Product Selection	0.165	0.202	0.099	1.752	< 0.1
	Competitive Response	0.157	0.173	0.123	1.390	---
Salesforce Integration	Customer Orientation	0.121	0.140	0.084	1.495	---
	Account Mgt Quality	-0.126	-0.166	0.106	1.075	---
	Competitive Response	0.437	0.375	0.166	2.425	< 0.05
Pre-Merger Relationship	Service Performance	-0.128	-0.170	0.122	1.098	---
	Product Selection	-0.109	-0.143	0.097	1.260	---
	Customer Orientation	-0.375	-0.381	0.053	7.075	< 0.01
	Account Mgt Quality	-0.382	-0.380	0.086	4.412	< 0.01
	Competitive Response	0.287	0.277	0.126	2.250	< 0.05
Merger-Integration Profile	Service Performance	-0.012	-0.082	0.062	0.179	---
	Product Selection	-0.316	-0.343	0.088	3.615	< 0.01
	Customer Orientation	-0.076	-0.092	0.061	1.219	---
	Account Mgt Quality	-0.379	-0.383	0.061	6.244	< 0.01
	Competitive Response	0.271	0.210	0.106	2.378	< 0.05
Service Performance	Loyalty	0.981	0.975	0.069	13.956	< 0.01
Product Selection		0.348	0.342	0.079	4.380	< 0.01
Customer Orientation		-0.133	-0.114	0.085	1.092	---
Account Mgt Quality		-0.549	-0.558	0.080	7.065	< 0.01
Competitive Response		-0.143	-0.152	0.070	2.189	< 0.05

Insignificant control variables (Supply Importance and Supply Complexity) are not included

## Appendix V: Predictive Relevance (Cross-validated redundancy measure)

Endogenous Variable	SSE*	SSO**	1-SSE/SSO***
Service Performance	56.658	66	0.142
Product Selection	62.948	66	0.046
Customer Orientation	68.597	88	0.221
Account Mgt Quality	79.010	110	0.282
Competitive Response	52.634	66	0.203
Loyalty	32.752	66	0.504

\* SSE = Sum of Squares of prediction Errors

\*\* SSO = Sum of Squares of Observations

\*\*\* 1-SSE/SSO = Stone-Geisser's Q<sup>2</sup>

Rules of Thumb for Predictive Relevance (Henseler et al., 2009):

0.35: Large

0.15: Medium

0.02: Small

## Appendix W: Service Performance for Top-10 Merger Cases

### 'Extent of Operational Integration' and perceived changes in 'Service Performance' by division by region

Acquirer	Division	Target	Integration / Performance	AP	EU	RoW	US	Mean
A.P. Moeller-Maersk	Mærsk-Sealand	P&O Nedlloyd	Extent of OPS integration	2.1	2.9	2.3		2.5
			Service performance	3.1	2.7	3.8		3.2
	Maersk Logistics	Damco Sea & Air	Extent of OPS integration		2.2	2.2	1.0	1.9
			Service performance		3.5	6.5	4.0	4.8
Ceva	ALL	EGL	Extent of OPS integration	2.6		2.0	2.4	2.5
			Service performance	3.6		6.0	4.3	3.9
C.H. Robinson	Transport	LXSI	Extent of OPS integration			3.0	1.8	2.1
			Service performance			5.0	3.3	3.8
DB Schenker	ALL	BAX Global	Extent of OPS integration	2.1	2.2		2.2	2.2
			Service performance	3.3	3.3		2.9	3.3
DP-DHL	Logistics	Exel	Extent of OPS integration	2.3	2.7	2.7	1.7	2.0
			Service performance	4.2	4.0	5.0	3.1	3.7
	Express India	Blue Dart	Extent of OPS integration	2.2				2.2
			Service performance	4.6				4.6
Ryder	ALL	TLC	Extent of OPS integration	2.0		1.7	2.0	1.9
			Service performance	4.3		2.3	4.1	3.8
UPS	Forwarding	Menlo Forwarding	Extent of OPS integration				2.3	2.3
			Service performance				3.0	3.0
	Freight	Overnite	Extent of OPS integration				2.2	2.2
			Service performance				4.4	4.4

#### Legend

##### Extent of integration

- 1.0 → No integration (<1.5)
- 1.9 → Partial integration (1.5 - 2.5)
- 3.3 → Complete integration (> 2.5)

##### Service performance

- 4.6 → Better performance (> 4.5)
- 4.0 → Neutral performance (3.5 - 4.5)
- 2.3 → Worse performance (< 3.5)

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