Developing Supply Chain Strategy:
balancing shareholder and customer value

A Management Guide

CONTENTS

Foreword

This Management Guide documents the process of determining a supply chain strategy that balances value for both shareholders and customers. This may appear at first to be an impossible task, because of the potential trade-off in value generation for these two key stakeholders. More for one is commonly considered to mean less for the other. But we have devised an approach that seeks to increase value for customers while simultaneously generating value for shareholders. The Guide takes you through a step-by-step sequence of three key phases – scoping study, situation analysis and feedback. Each step is clearly explained and illustrated, and accompanied by examples from our research. In the Appendix, we include the data collection sheets you will need to help you on your way. A Glossary helps to ensure that the terms we use are kept clear and consistent throughout.

The Guide is designed for project sponsors and team members who are charged with the process of supply chain re-engineering. Such projects are large-scale and complex, their scope often uncertain, and the actions to be undertaken unclear. Team members will therefore appreciate the format of this Guide, including the illustrations and examples. Sponsors will appreciate the overview of what needs to be done, and the systematic way in which the game plan is presented. The benefits of using this Guide are therefore to develop a better and more robust supply chain strategy for your firm.

The Guide has been developed through 7 years of practical engagement with over 70 firms striving to achieve supply chain excellence. We acknowledge the importance of the insights we have gained from those we have worked with, many of which form the basis for the cases and illustrations we use. We also acknowledge the funding we have received from Cranfield Innovative Manufacturing Centre via the EPSRC during the last 3 years. And we also acknowledge the relationship we have developed with SA Partners, especially Dr Jim Aitken, who have co-sponsored and worked with us. Finally, we recognise the special contribution of Janet Godsell, who has been dedicated to this project from its inception.

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The Supply Chain Strategy Roadmap

Customer and Shareholder Alignment

Aligning supply capabilities with the characteristics of demand ensures that the end-customer is put first in supply chain thinking. But aligning capabilities with customer needs is about more than meeting demand characteristics, and should engage the firm as a whole - together with its competitive position. To encapsulate this view, we have developed the concept of *customer alignment* which we define as:

> the process of making supply chain strategy compatible with marketing strategy. This involves alignment of strategy both within and between partners in a supply chain, and delivers customer value.

Customer value is the customer-perceived benefits gained from a product/service compared to the cost of purchase.

Clearly delivering customer value is crucial to a firm – where would you be without your customers? On the other hand, delivering financial value to your shareholders is just as important, and is reflected in various business performance measures such as profit and market growth. We have thus also developed the concept of *shareholder alignment*, which we define as:

> the process of making business strategy compatible with functional strategies and the business processes used to deliver them. This involves alignment of strategies and processes both within and between partners in a supply chain, and delivers shareholder value.

The relationship between customer and shareholder alignment is illustrated in Figure 1. Shareholder value is the financial value created for shareholders by firms in which they invest. Shareholders value growth and profitability – so operating cost reduction, fixed assets and working capital efficiency are key drivers. Thus, the two widely used measures of shareholder value are market value-added and economic value-added.

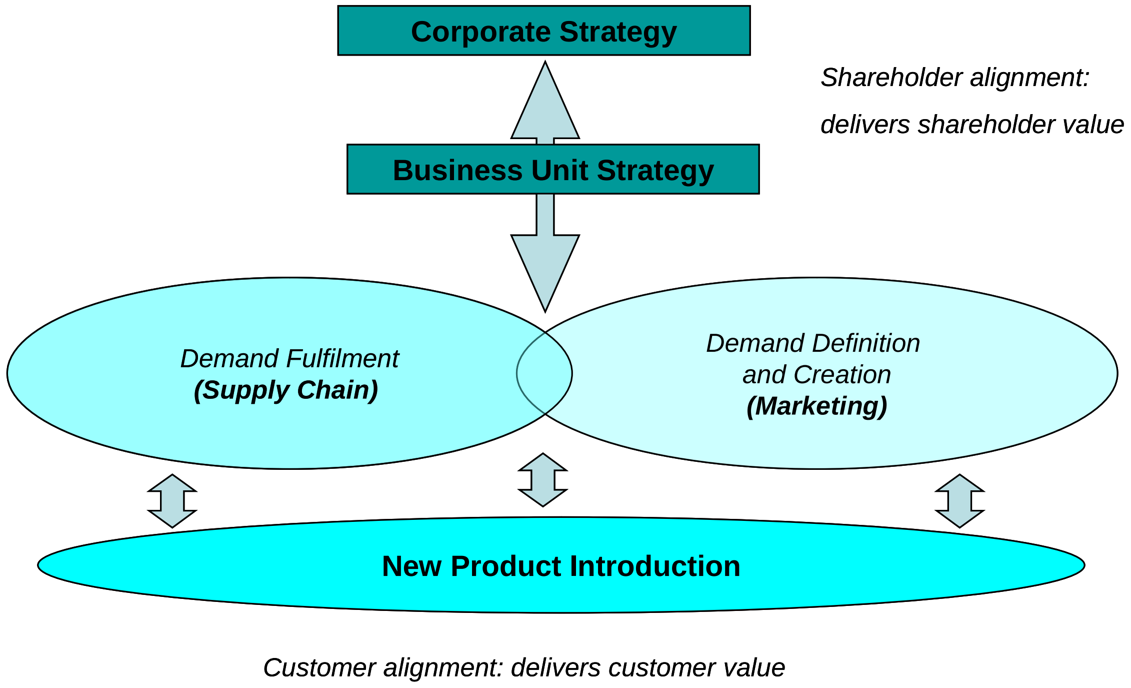


Figure 1: Balancing shareholder and customer alignment (Source: After Godsell, 2004)

Many firms face the dilemma of whether to focus their efforts on the delivery of shareholder value or on the delivery of customer value. It is commonly thought that pursuing the delivery of one will inevitably hobble delivery of the other. Often, shareholder value wins out, and the opportunities for synergy are missed. The aim of this Management Guide is to show how supply chain strategy can work to increase value for customers while *simultaneously* generating shareholder value. Supply chain strategy - though normally associated with delivering superior customer value – is equally important in meeting shareholder needs. It enables reliable supply and logistics service, low inventory cost, and short cash-to-cash cycle times. It therefore addresses shareholder needs in terms of revenue growth, operating cost reduction, fixed asset efficiency and working capital efficiency.

Figure 2, based on the familiar supply chain operations reference (SCOR) model (www.supply-chain.org), shows the relationship between material flow and funds flow. ‘Make’ is the core process of a focal firm, ‘source’ the process of acquiring bought-in parts, and ‘deliver’ the process of distributing finished product to the customer (the next process). These three processes (source, make and deliver) are coordinated within an overall supply chain game plan (‘plan’). Material flows from left to right (from raw materials to end-customer), while funds flow from right to left. The whole system is driven by the behaviour of the end-customer, who pays for the products/services that the supply chain offers and thus generates the income on which all partners depend. Only the end-customer is free to act as they want: after that, the system takes over.

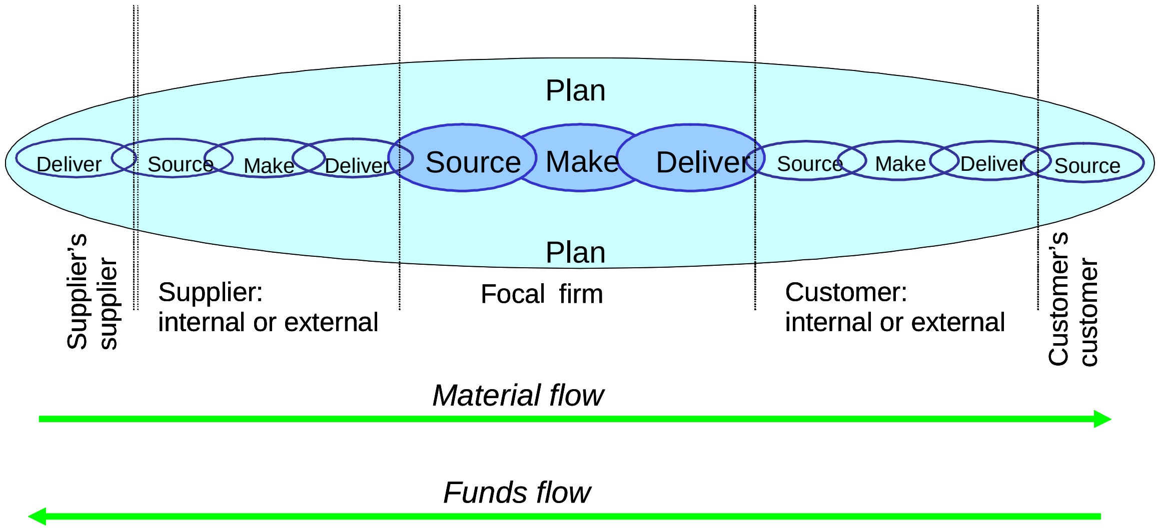


Figure 2: Material flow and funds flow in the supply chain (source: SCOR v1)

Alignment Gaps

How, then, can supply chain strategy allow firms to simultaneously increase customer and shareholder value? We address this question by identifying alignment gaps (as shown in Figure 3) and ways of closing them. An alignment gap arises where there is inconsistency between strategy and process, which results in loss of value to both customer and shareholder. Alignment gaps can be either customer or shareholder oriented - as indicated by the horizontal arrows (customer - 6, 2 and 5) and the vertical arrows (shareholder – 1 and 4) in Figure 3.

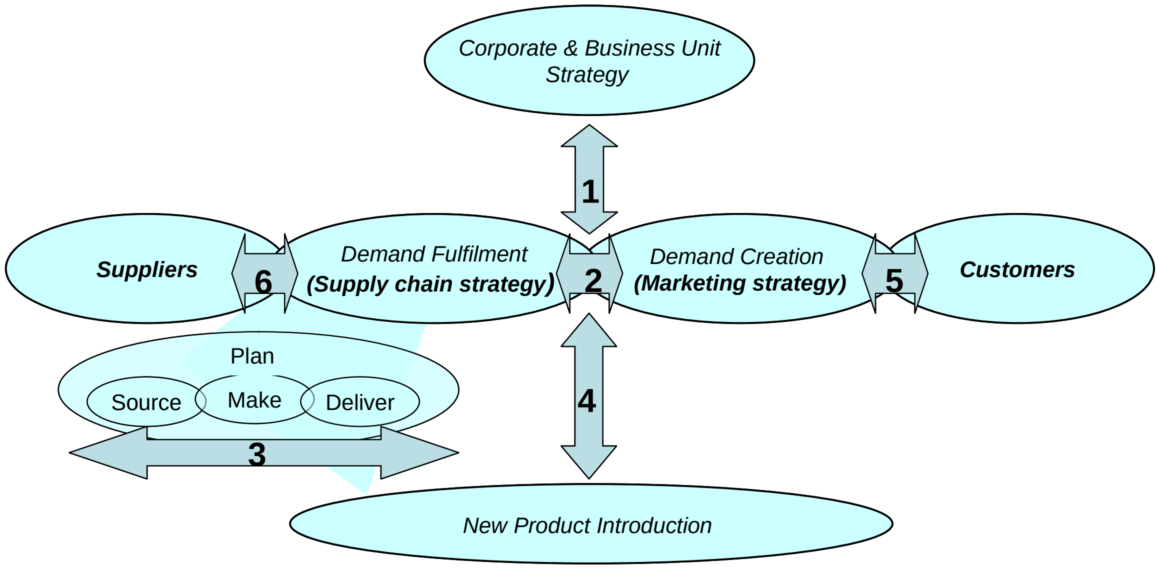


Figure 3: Alignment gaps within the focal firm (dotted line) and with its suppliers and customers

We define these alignment gaps as follows:

Gap 1: the *strategy gap* between the corporate/business strategy and the various functional strategies encompassed by supply chain strategy and marketing strategy
Gap 2: the *demand fulfilment-creation gap* between marketing and supply chain strategy
Gap 3: the *supply chain process gaps* between the plan, source, make and deliver processes
Gap 4: the *new product introduction process (NPI) gap* between NPI and supply chain and marketing strategy
Gap 5: the *customer value gap* between customer's needs and your firm's strategies and processes
Gap 6: the *supplier gap* between your firm's needs and your supplier's strategies and processes

Supply chain strategy addresses the four supply chain processes shown in Figure 2 above - plan, source, make and deliver. It is focused on demand fulfilment. This Guide is concerned with two central aspects of marketing strategy: market segmentation and understanding customer value. Both aspects address the interface between supply chain and marketing. Therefore, they can be *aligned*.

Firms which make industrial rather than consumer products may have relatively small marketing functions, while the sales function is comparatively larger. So marketing may be replaced by sales in Figure 3. The title of the function is not the issue: what matters is that it is concerned with demand creation - encompassing market segmentation and understanding customer value.

The Strategy Roadmap

The key to supply chain superiority is not 'copy-pasting' best practice from one firm to another. Given the unique context in which each supply chain operates, the key to excellence lies in the application of a context-specific solution. Our Management Guide develops a roadmap for situation analysis and conceptual design, encompassing a set of guiding principles. The roadmap provides practical guidance through the complexities of developing a supply chain strategy, presented in Figure 4.

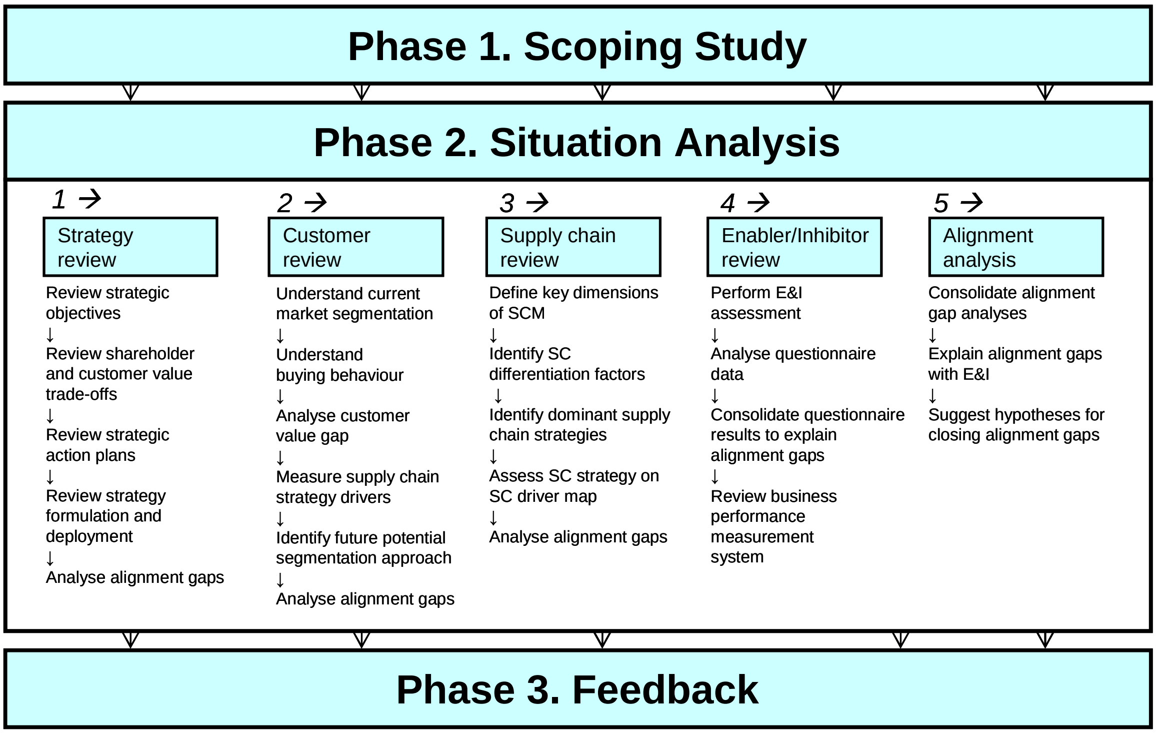


Figure 4: The roadmap for situation analysis and conceptual design

The structure of our management guide reflects the three phases of the roadmap: scoping study, situation analysis and feedback to senior management. An overview of these three phases is provided in Table 1, each phase having a distinct purpose and rationale.

Table 1: Overview of roadmap phases

	Phase 1: Scoping study	Phase 2: Situation analysis	Phase 3: Feedback and conceptual design
Objectives	To understand the business and supply chain context, identify a focus for the situation analysis and create key project documentation that aids management of situation analysis	To review the current state of strategies and processes within the study's scope in order to identify alignment gaps and develop a hypothesis on how they might be closed	To feed back the findings from the situation analysis to the senior management team such that improvement projects to close alignment gaps can be selected and defined
Rationale	No firms are the same, nor are the contexts in which they operate. There is a danger that supply chain strategy is developed in a vacuum and fails to deliver either customer or shareholder value. The scoping study ensures that supply chain practices are understood in their current context	This part provides an opportunity to 'manage by fact' and dispel the corporate myths upon which decisions can be made. It is the most resource intensive phase of the roadmap, the output of which will form the basis for a hypothesis for improvement intended to close the alignment gaps	To make the leap from supply chain analysis to improvement projects you first need the involvement and commitment of your senior management team. The feedback phase gives senior management the opportunity to select and define improvement projects on the basis of situation analysis findings
Duration	1–2 weeks	6–8 weeks	2 or 3 weeks for preparation and 1 or 2 days for a feedback meeting
Resource	Project team (1 or 2 people)	Project team (2 people)	Project team (2 people) to prepare, and preferably the full senior management team to attend feedback meeting

Situation analysis is the most involved phase of the roadmap and is divided into 5 activities, which are in turn broken down into the series of steps shown in Figure 4. The roadmap shows that activities should be completed from left to right. In practice, a level of concurrency is possible - if sufficient resource is available. Activities 1 through 4 can be conducted simultaneously.

Top tip: The customer review should be finished before the supply chain review is started, and all reviews must be complete before the alignment analysis can be begun

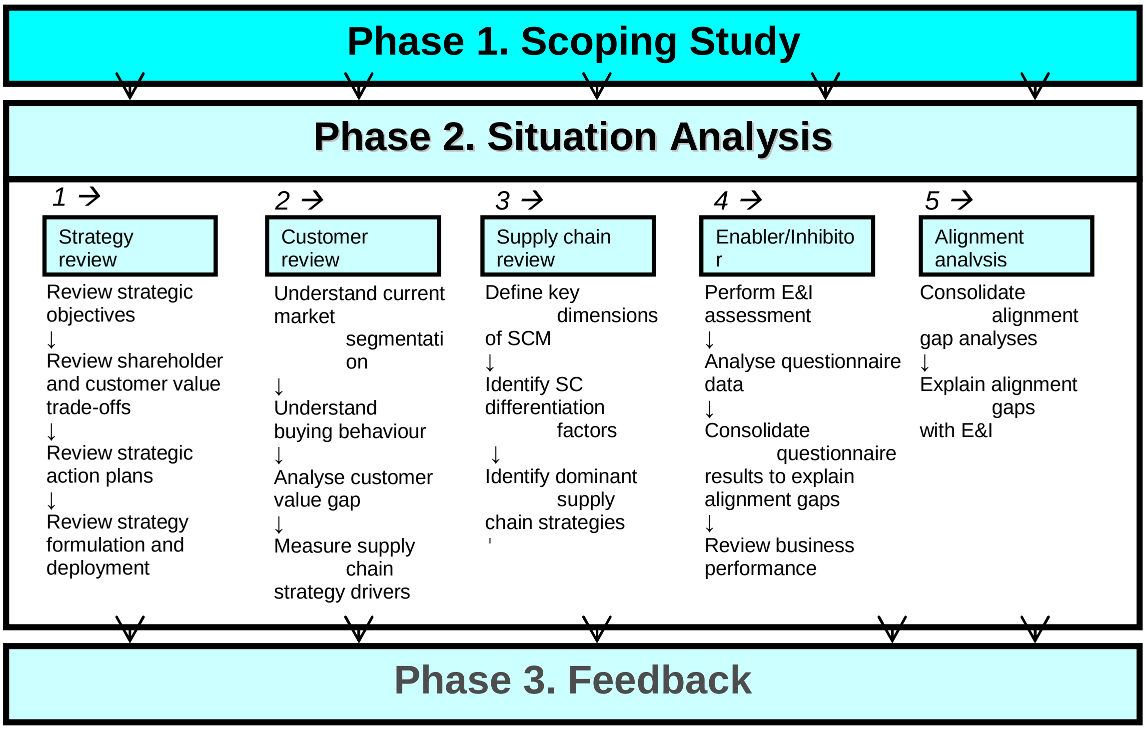
An important first step in following the roadmap is to select the project team that will execute the three phases. The level of resource required is indicated in Table 1. If less resource is available, phase duration will be extended. Selection of the project team is crucial to the success of the project. Members need to have:

- reasonable level of knowledge of supply chain management;
- reasonable independence from supply chain management or marketing. It is important for them to be impartial to both areas;
- understanding of the concepts of shareholder and customer alignment, and of alignment gaps as defined in this introduction.

The project team leader needs to have the appropriate authority to gain access to necessary parts of the firm for data collection and analysis.

Given the context-specific nature of supply chain strategy, every situation analysis and emerging set of actions for improvement will be unique. By following the principles laid out in this Guide you are ready to develop a bespoke solution for your firm.

Scoping Study



The scoping study addresses the key supply chain activity of planning. Usually completed within one to two weeks, this activity provides a firm foundation for the situation analysis phase. Key outputs include an overview of the supply chain context (which includes identifying a focus for the situation analysis) and the creation of key project documentation to enable project management.

Supply Chain Context

Step 1: Gain commitment from senior management team to participate in the scoping study

As the majority of the interviews will be with members of the senior management team it is important to get their buy-in at the start. The key members of the team are:

- director with overall accountability for the business unit (BU) in which the study will take place: for example, the managing director;
- director(s) responsible for demand fulfilment: for example, the supply chain director, logistics director or operations director;
- director(s) responsible for demand creation: for example, the marketing director, trade marketing director or brand marketing director.

Seek to gain their commitment for:

- a two- to three hour individual scoping interview (depends on breadth of role);
- two hour feedback presentation.

Step 2: Develop context and scoping interview schedule

Using the interviews and templates in Appendix 1 as a guide, develop your own set of interviews ensuring they are relevant to your business. Consider what further supporting documentation is required – for example, firm charts, location maps, and facility maps. Identify which members of the senior management team will answer which questions. If seeking to understand the degree of common understanding across the senior management team, questions may be directed at more than one member of the management team and comparisons made.

Step 3: Arrange interviews

Book the interview slots well in advance. Just before the interview, send a reminder with a copy of the relevant interview schedule attached.

Step 4: Conduct interviews and gather the relevant supporting documentation

Try to conduct interviews with two interviewers. One asks the questions and maintains eye contact with the interviewee. The other concentrates on recording details of the interview. If the senior management team is agreeable, record the interview using a digital voice recorder, as it can make it much easier to fill in the gaps later on. Select good ‘quotations’. Where possible ask for documentary evidence to support the points being made – for example, firm charts, strategy documents and process maps.

Top Tips for Successful Interviewing

1. Conduct the interview in a neutral environment free from distractions such as mobile phones
2. Arrive early to allow sufficient time to prepare both mentally and physically
3. Seek permission to record interviews from the start
4. Begin with a simple and open question that allows the interviewee to build up confidence, e.g. their career history
5. Ask open questions at the start of each section: use closed questions to probe the detail

Step 5: Identify focus for situation analysis

First, identify the scope of the study - what is in and what is out. In a supply chain context, it is best to include a minimum scope of first tier suppliers through internal operations, and logistics providers to first tier customers - as shown in Figure 5.

While it is useful to collect data at an aggregate level, such data does not necessarily give a representative view of the business. For example, an average delivery performance of 97% may be the result of some customers experiencing 85% service levels, while others have 99%. It is therefore important to analyse at a 'micro' level (SD, coefficient of variation) as well as at a 'macro' level.

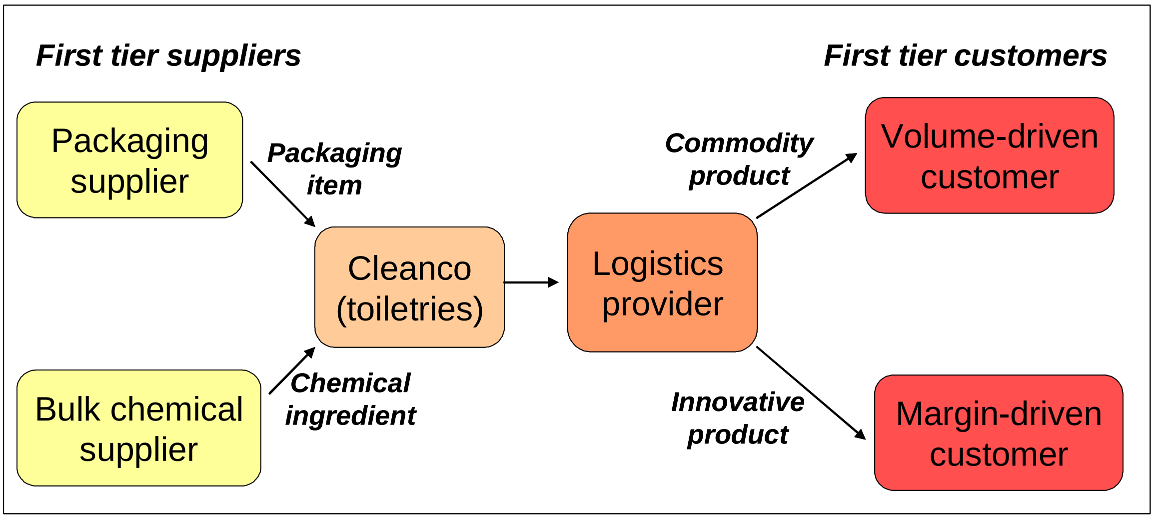


Figure 5: Cleanco example of focus for situation analysis

Start by identifying two 'polar extreme' customers and a typical product that each of them buys from your firm. This is decided on the basis of customer buying behaviour resulting in different demand profiles. (In phase 2.2, we analyse demand profiles in terms of demand volume, variety, variability and uncertainty). In the Cleanco example shown in Figure 5, a margin-driven customer and a volume-driven customer were chosen. The volume-driven customer was very price-sensitive and keen to capitalise on supply chain cost savings in order to pass them on to customers. This resulted in high volumes and relatively stable demand. The margin-driven customer was keen to add value for customers by offering a wide selection of products and value-adding services. This strategy also resulted in a relatively stable demand pattern, but lower volumes.

Select two suppliers and a typical component that each of them provides. These components must be used in the two selected products so that the situation analysis can focus on two distinct material flows that span the scope of the study.

Step 6: Write scoping study report and executive summary

Work to capture the learning from the scoping study, and to consolidate it in a form that is easy to read and can be shared with all relevant parties. We have found that it is common practice to create two versions of the scoping study report. The first is a full and unabridged version that provides all the background data, and culminates by identifying the suggested scope and focus for the situation analysis. The second is a condensed version tailored to meet the needs of the senior management team presenting only the relevant highlights and conclusion of the scoping study.

5. Validate the results from the scoping study with the senior management team
It may be necessary to validate the results of the scoping study with the senior management team and to gain consent to proceed to the next step. This is particularly important if there are alternative views as to the scope and focus for the situation analysis.

Project Management

It is good practice to develop a project document (a template for which can be found in Appendix 4). This covers all key aspects of the situation analysis from background, scope and focus to detailed project plan and interview schedule.

Situation analysis involves the gathering of qualitative (word based) and quantitative (number based) data through interviews with employees that fall within the scope of the study. All six activities in the situation analysis phase (except alignment analysis) involve administering interviews. The interview schedule identifies all the key people who need to be interviewed in order to gain an understanding of how the supply chain operates bounded by the scope and focus identified in the scoping study.

An overview of the interviews required in situation analysis is shown in Table 2. Dark shading indicates that the interview should be administered to all employees falling within the scope of the study whereas light shading denotes that interviews are only suitable for selected employees. All the interviews to be administered during situation analysis can be found in Appendices 4 to 21. To aid the administration of these interviews a transposed version of Table 2 can be found in Appendix 3 which shows the interviews to be administered to each individual within the scope of the study.

Next Steps

The Project Document is reviewed by the senior management team. The senior management team should sign off their acceptance of the Project Document to signify their commitment to the next phase.

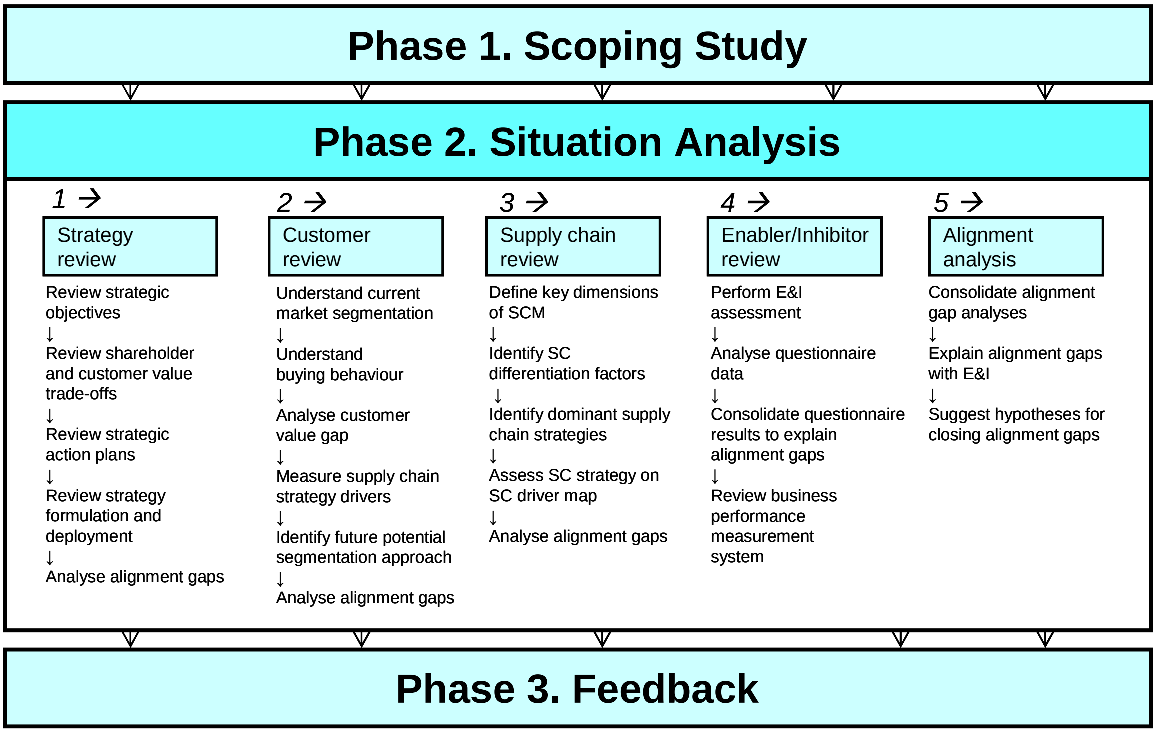
Table 2: Situation analysis interviews

Interview	Suppliers	Your firm	Logistics provider	Customers
3.1 Strategy review				
Understand corporate and operation strategy		Top team and senior management		
3.2 Customer review				
Understanding current market segmentation approach		Sales managers Marketing		

Understanding buying behaviour		manager Supply chain manager		
Customer value questionnaire				Purchasing and logistics manager

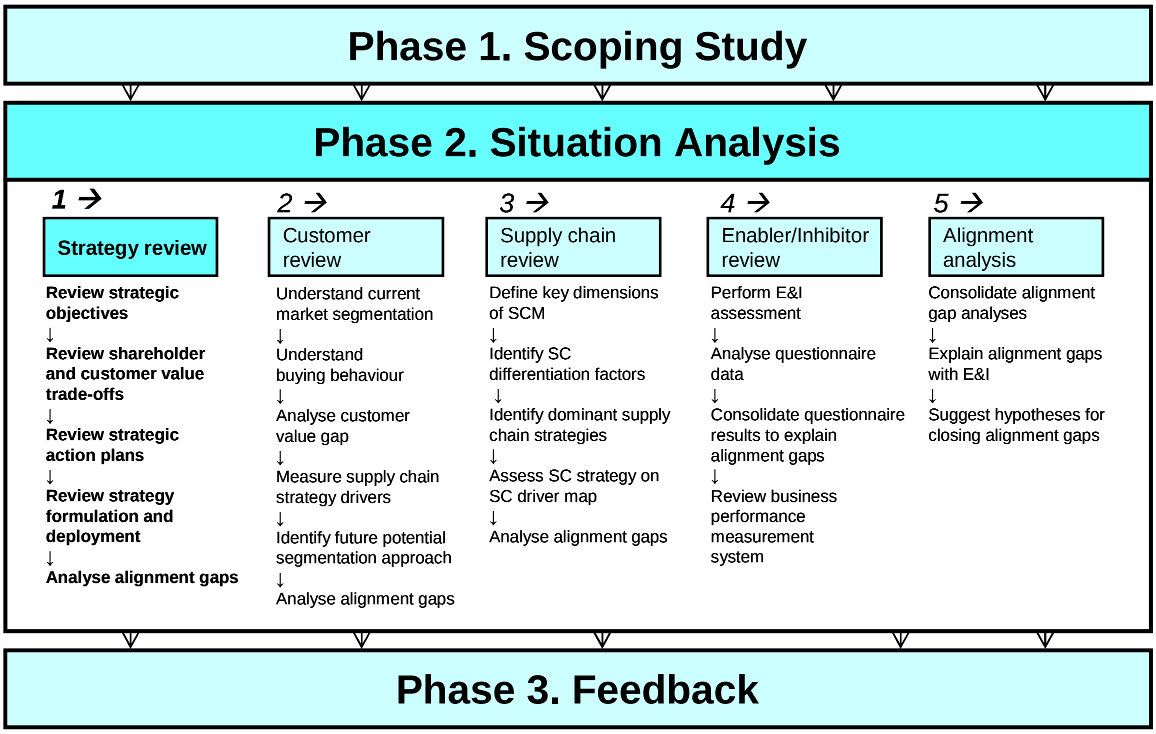
3.3 Supply chain review				
Supply chain strategy drivers for your firm		Sales managers Supply chain manager		Purchasing and logistics manager
Supply chain strategy		Supply chain manager		
Deliver strategy and process of your firm		Account or logistics manager	Account or logistics manager	Purchasing and logistics manager
Planning strategy and process		Planning manager		
Sourcing strategy and process of your firm	Sales, operations or delivery managers	Purchasing manager		
Make strategy and process		Manufacturing manager		
New variant introduction strategy and process		Product development manager		
3.4 Enablers and inhibitors review				
Enablers and inhibitors questionnaire	Sales, operations or delivery managers	Top, senior and functional mangers	Account or logistics manager	Purchasing and logistics manager
BPMS interview				

Situation Analysis



The situation analysis provides an opportunity to ‘manage by fact’ and to challenge the more piecemeal way in which decisions have previously been made. This is by far the most resource-intensive phase of the roadmap. It comprises a systematic review of the current state of your firm’s strategies and processes within the study scope, and aims to identify alignment gaps and how they might be closed. The main output of this phase will be proposals to close the alignment gaps. If these are agreed by the senior management team in the feedback phase (phase 3), they will form the basis for improvement projects.

Strategy Review



Purpose

The purpose of strategy review is to examine whether corporate strategy has been aligned effectively with the business strategy and operating firm strategy. The outcomes of the strategy review are:

- to identify strategic objectives and action plans;
- to compare trade-offs between shareholder and customer value;
- to identify strategic alignment gaps in terms of objective gaps, action plan gaps and strategy process gaps.

Rationale

It is common to find different strategic objectives and action plans between different operating units and the corporate or business units. Lack of alignment between the operating firm's strategy and its corporate strategy may impact shareholder value adversely. Usually firms do not have a process to examine such an alignment gap, but rely on financial reporting to trigger actions. These actions can be too late. Our strategy review method allows firms to assess their strategy alignment gaps in terms of *objective gaps*, *action plan gaps* and *strategy process gaps*.

Step 1: Review strategic objectives

Usually, a firm decides strategic objectives at different organisational levels – corporate, business unit and operating firm. These strategic objectives might include finance, market, customer and firm. To ensure achievement of these strategic objectives for the whole firm, they need to be deployed from corporate to each business unit and operating firm so that all operating units are aligned.

Step 1: Interview top team and senior management regarding corporate, business unit and operating firm strategies and collect supporting strategic documentation. This enables the strategic objectives to be identified and explained. Map out and review strategic objectives at different organisational levels as shown in Appendix 4.

Table 3: Strategic objectives review for a FMCG firm

Objectives	Corporate	Business unit	Operating firm
Finance			
Revenue	Global growth 10%	Global growth 10%	Global growth 15%
Profit (IBT)*	Global $5bn (10%)*	Global $1bn (12%)*	$100m (6%)*
Cost saving*	Global $500m (20%)*	Global $200m (20%)*	**$20m (10%)***
ROI	Maintain 15%	Maintain 15%	Maintain 10%
Cash flow	Global $150b	Global $60b	**$2b**
Market			
Share	From 40% to 50%	From 35% to 45%	**From 30% to 40%**
Product	10 new products	8 new products	5 new products
Competition	Market no. 1 (size)	Match market no. 1	Be market no. 2
Customer			
Satisfaction	Global 98%	From 90% to 98%	From 90% to 98%
Retention	Enlarge KA 20%	Enlarge KA 20%	**Build new KA**
Firm			
Integration	Global process/org.	Global process/ org.	Global process
Competence	Global SCM	Global SCM	Global SCM
Other	Global IT	Global IT	Global IT

*Legend: * percentage of revenue, KA = key account*

An example of a review of strategic objectives for a FMCG (fast moving consumer goods) firm is shown in Table 3, which allows us to compare strategic objectives at different levels in the firm. This example reveals relatively high alignment in terms of strategic objectives between corporate and business units. The various strategic objectives (finance, market, customer and firm) are well deployed and linked at all three organisational levels. However, the operating firm (one of the operating firms under the business unit) has diverging strategic objectives when compared with those of corporate and business units. This operating firm seems to aim for relatively lower profit, cost saving, cash flows and market shares. Misalignment is not automatically implied - because there are other operating firms which might collectively contribute to the desired objectives. Since this operating firm was building up a fairly new market, its focus was on sales growth. Its ability to contribute to global cost saving objectives was therefore impaired.

Step 2: Review shareholder and customer value trade-off

Whilst the first step reveals strategic objectives from different firm levels, this second step examines the trade-off decisions at stake. Trade-offs mean that more of one thing implies less of another. Among others the following two trade-off decisions are essential for a review:

1. *Shareholder v customer value.* A firm might change its strategic objectives from time to time - from focusing on providing more value to the shareholders to focusing on providing more value to the customers, or a balance strategy. It is important to ensure that all firm levels adhere to the same trade-off orientation, as well as asking if it is the 'right' trade-off.
2. *Sales growth v cost reduction.* A firm might change its strategic objectives from time to time – for example, from focusing on sales growth to focusing on cost reduction to customers. Or it may develop a balanced strategy. It is important to ensure that all firm levels adhere to the same trade-off orientation, as well as asking if it is the 'right' trade-off.

Step 2: Interview top team and senior management personnel to determine how they have made the above trade-offs (officially or unofficially). Where they have not previously been considered, what are the 'desirable' trade-offs for your firm? A guide to identifying the two key trade-off decisions across different organisational levels is provided in Appendix 5.

Table 4: Trade-off summary for a FMCG firm

Trade-off	Corporate	Business unit	Operating firm
Shareholder value and customer value	1) SHV only 2) SHV > CV **3) Balance SHV and CV** 4) CV > SHV 5) CV only	1) SHV only 2) SHV > CV **3) Balance SHV and CV** 4) CV > SHV 5) CV only	1) SHV only 2) SHV > CV **3) Balance SHV and CV** 4) CV > SHV 5) CV only
Sales growth and cost reduction	1) SG only 2) SG > CR **3) Balance SG and CR** 4) CR > SG 5) CR only	1) SG only 2) SG > CR **3) Balance SG and CR** 4) CR > SG 5) CR only	1) SG only **2) SG > CR** 3) Balance SG and CR 4) CR > SG 5) CR only

Legend: CV = customer value, SHV = shareholder value, SG = sales growth, CR = cost reduction

An example of a strategic trade-off review for a FMCG firm is shown in Table 4. Table 4 reflects the desirable trade-off orientations for the FMCG firm. It is then beneficial to cross-examine if these trade-offs are reflected by the agreed strategic objectives in Table

3. The trade-offs in Table 4 should agree with the strategic objectives in Table 3 - or else there is an *alignment gap* between the strategic objective and trade-off decisions. In the FMCG case, for example, the trade-off decisions are aligned with the strategic objectives as the operating firm is allowed to focus more on sales growth for an important but new market. It is understood that other operating firms have been assigned to contribute more to cost saving. Thus, the FMCG firm has the strategic decision trade-offs aligned with the strategic objectives.

Step 3: Review strategic action plans

This step probes whether there are agreed action plans being executed to achieve the various strategic objectives. There is a need to differentiate between 'objective' and 'action plan'. An action plan comprises a series of interrelated activities or programmes which lead the firm towards achieving its strategic objectives. An action plan is the pathway to achieving strategic objectives. It usually makes changes to market and product, organisational process, decision logic, organisational structure, organisational competence, and operating policy.

Step 3: Based on the interviews with top team and senior management - and the supporting strategic documents (see step 1) - map the various strategic action plans at different organisational levels. A template which guides the review of the strategic action plans is provided in Appendix 6.

An example of the strategic action plan review for a FMCG firm is presented in Table 5. It is important to define the status of the action plans: (N) action plans not yet agreed upon, (P) planned for implementation, (I) implementation in progress, or (C) completed. Furthermore, the status of each action plan is colour-coded colour to indicate if it is delayed from the intention. Light indicates on-time completion of an action plan; medium shading indicates slight delays and dark shading indicates delays which might jeopardise the achievement of the intended strategic objectives.

Table 5: Strategic action plans for a FMCG Firm

Aspects	Corporate	Business unit	Operating firm
Finance	C) Unify finance reporting/IT	C) Unify finance reporting/IT P) Implement EU system	I) Unify finance reporting/IT P) Implement EU system
Market/ competition	I) Global brand strategy I) New product design	I) Global brand strategy P) New product lines	P) Mass campaign N) High-end segment leader
Customer	C) Customer profitability analysis P) Global KAM tools	C) Customer profitability analysis P) Global KAM tools	N) Customer switching incentive scheme P) Customer satisfaction scorecard
Firm	I) Global leadership training	P) new trading structure P) Centralised SC hub N) SC education	P) New trading structure P) Centralised SC hub P) Clarify process-role N) SC education
Performance (KPI)	I) Unified BU KPI	N) New BU KPI I) SC hub KPI N) Market-SC scorecard	N) Factory KPI I) SC hub KPI N) Market-SC scorecard
New product introduction (NPI) strategy	I) New product design	I) NPI process and tool N) NPI-S&OP interface P) New product lines	I) NPI process and tool
Marketing strategy	I) Global brand strategy	I) Global brand strategy P) New product lines N) Centralised European marketing hub	P) Local campaign N) High-end segment KAM I) Cluster S&OP
Supply chain strategy	N) Supply chain leadership programme	I) Centralised SC hub I) Cluster S&OP I) Lean production N) Supplier partnership I) New ERP	I) Centralised SC hub I) Cluster S&OP I) Lean production I) New ERP

Legend: 'N' – not yet agreed upon, 'P' – planned to implement, 'I' – implementing now, 'C' completed implementation, _) on-time as planned, _) slight delay, _) severe delay

After mapping out the strategic action plans, ask the following questions:

- *Are there any strategic action plans which are not consistent with - or conflict with - a strategic objective?* It is possible that somewhere in the firm some action plans are no longer supporting the strategic objectives of different organisational levels.
- *Are there strategic action plans which support or complement each other across organisational levels?* In the FMCG case (Table 5), you can find most strategic actions are mutually supported by other similar strategies across corporate, business unit and operating levels.
- *Considering the status of the strategic action plans across corporate, business unit and the operating firm, is there any timing issue?* To answer this question, you can refer to the action plan status and shading in Table 5. Two indicators can be useful: 1) a low percentage of action plans with status '*I*' and '*C*' indicates that a large numbers of action plans are still at the discussion and planning stage, and 2) a large amount of 'dark' and 'medium' indicates that a firm has difficulty implementing its strategic action plans in a timely manner. In the FMCG case, you can find some issues as quite a few strategic action plans seem to have difficulty achieving agreement, while there are many strategic plans under various stages (especially implementation) with slight delay.
- *Is there any other strategic action plan which might contribute to the strategic objectives but not (possibly not recognised or applied in your firm) listed in the strategic action map?* This question leads you to think 'outside the box' – not just in terms of current action plans, but also other potential best practices. For example, in the FMCG case, strategic action plans for new product introduction seem to be incomplete. This is called a 'strategic void'. The firm is still unsure on how else new global branding and new products can be managed.

The above key questions on strategic action plans lead to the evaluation of strategy alignment in terms of action plan implementation. In the FMCG case (Table 5), two key strategy alignment gaps are apparent:

- not all strategic action plans have been agreed upon, and there seems to be a time delay in implementing some agreed strategies;
- strategy action plans for aspects such as new product introduction still need further investigation and ideas.

These two strategy gaps lead to further questions, for example the effectiveness of strategy formulation and deployment process for the FMCG firm.

Step 4: Review strategy formulation and deployment processes

Strategy formulation and deployment processes may contribute to the strategy alignment gaps identified by the previous three steps. Even though it is common for top team executives to believe that they know the strategy formulation and deployment processes well, it is recommended that the process is mapped and understood. The idea is to find out if all involved executives are working on the same process with the same principles, and to identify shortcomings in the process.

Step 4: Interview the top team and senior management by asking the following questions to understand how strategy formulation and strategy deployment is managed at all levels (corporate, business unit and operating firm). Map these processes.

1. is there formal documentation on a strategic formulation and deployment process?
2. does every involved executive understand and share the one (and only one version) strategic formulation and deployment process?
3. has there been coordination across corporate, business units and operating firms to ensure each other's objectives are understood and agreed?
4. has there been detailed investigation and debates within the corporate, business units and operating firms to come out with a set of strategic action plans?
5. has there been approval and resource allocation to implement the agreed set of strategic action plans?

The above five questions guide the assessment of strategy formulation and deployment process in terms of adherence and effectiveness. Based on the interviews with those involved in the strategic formulation and deployment processes and the above five questions, the project team can score the answers to the questions for each organisational level. A scale of 1 to 5 can be used to assess the effectiveness of the strategy process: a firm scores one point for each of the above questions with a 'yes' answer. A low score indicates weak strategic formulation and deployment process.

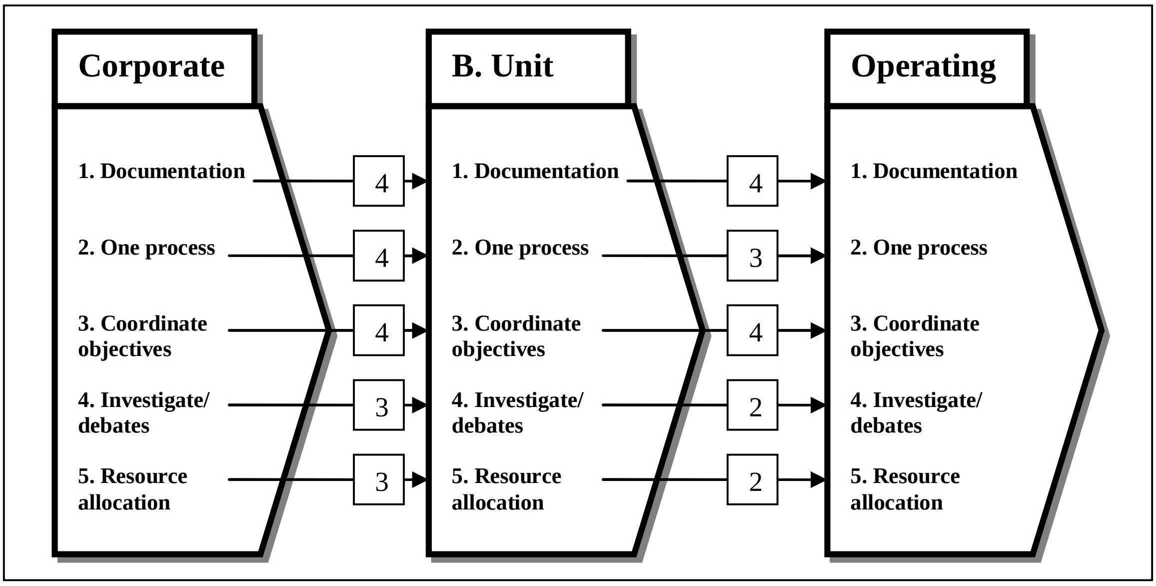


Figure 6: Assessment of strategic formulation and deployment at a FMCG firm

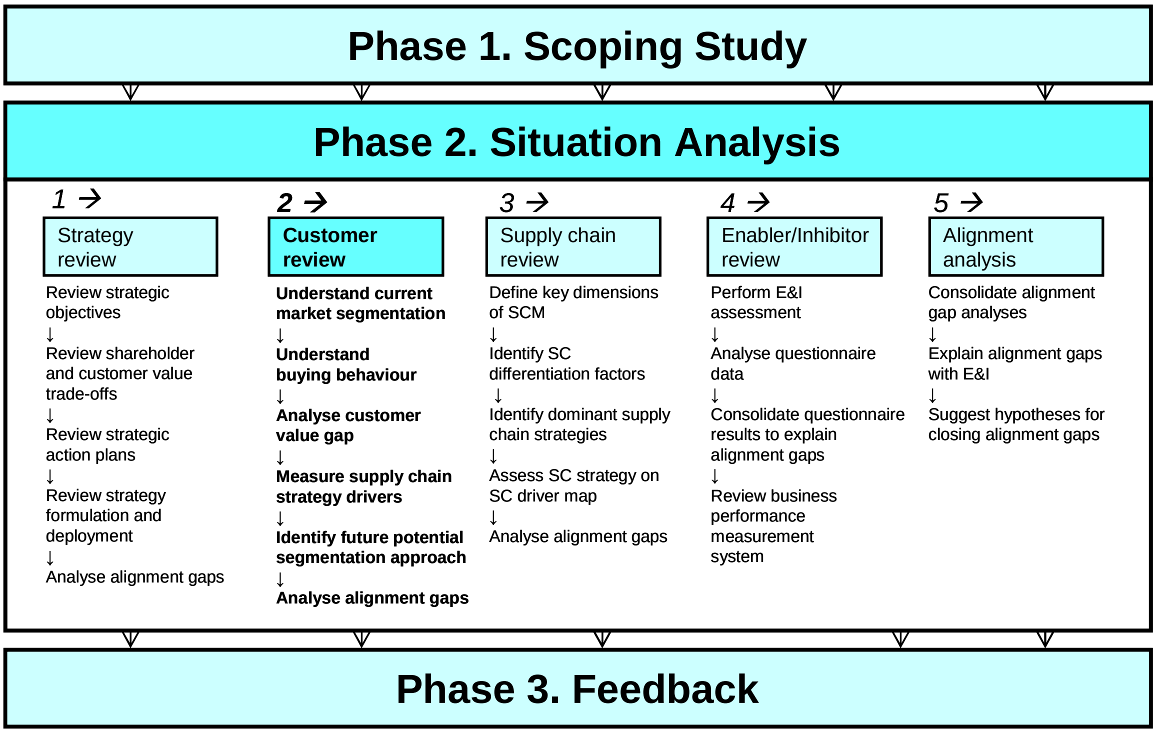
Figure 6 shows an example of the assessment of the strategy formulation and deployment processes for a FMCG firm (a template is given in Appendix 7). From the table, the FMCG firm seems to have high scores on process documentation and sharing of one strategy process, but it has process alignment issues in terms of detailed investigation/debate and resource allocation, while the business unit and the operating firm needs clarification on the strategy process. This assessment provides some potential reasons to explain some of the strategic action plans alignment gaps identified earlier in Table 5. Through this step, the FMCG firm found that there is a need to strengthen the process of allocating resources for investigation, debate and implementation of the strategic action plans - even though there is already a formalised and shared strategy process.

Implications

It is essential to understand how strategies from different levels of a firm are aligned. When there are different strategic objectives and action plans between different operating units and the corporate or business units, there will be obstacles to delivering target shareholder value. Lack of alignment between the operating firm's strategy and the corporate strategy might increase cost and decrease customer satisfaction.

The strategy review method has allowed firms to examine strategy alignment gaps in terms of strategic objectives, strategy action plans and strategic processes. This review method does not take over the roles of budgeting and strategic process, but serves as a supplement to this process. It allows firms to take appropriate action towards effective alignment of strategies between organisational levels. The strategy review also provides input to the business performance measurement system review in the enablers and inhibitors section.

Customer Review



Purpose

The purpose of the customer review is firstly to identify a future potential, supply chain relevant, market segmentation approach which will contribute to closing the demand fulfilment-creation gap. Secondly, it examines the customer's perception of value such that supply chain improvements can be identified which will reduce the customer value gap. The outcomes of the customer review are:

- to assess the extent to which the current market segmentation approaches drive supply chain strategy;
- to understand customers' supply chain relevant buying behaviours;
- to conduct customer value gap analysis to show where the value gaps are between your firm and its competitors;
- to plot supply chain strategy driver profiles for each customer.

Rationale

Customer alignment requires that supply chain strategies are aligned with customer needs. Typically, it is necessary to differentiate supply chain strategy to meet different customer needs. Herein lies the challenge - since customer needs are diverse and vary with product, context of purchase, promotional activity, to mention a few. It is therefore necessary to first make sense of customer needs in such a way that supply chain strategies can be tailored to meet them. This is what customer review is about.

Step 1: Understand current market segmentation approach

Sales or marketing managers of your firm will use an approach to market segmentation. The questions are what activities does this approach drive, and are any of them supply chain related? If they are not, then this contributes to the alignment gap between supply chain strategy and market strategy - and indeed customer needs.

Market segmentation is the process of dividing the market into customers (end consumers or industrial customers) with similar needs (MacDonald, 2004). This allows firms to handle diversity by focusing resources on particular relatively homogenous groups. The aim of the customer review is to identify market segmentation approaches that are relevant to supply chain and marketing strategy.

Let us start by considering what are the conventional approaches to market segmentation and what are their implications for marketing and supply chain strategy (as summarised in Table 6).

<table>
<tr><th>Segmentation Approach</th><th>Marketing Implications</th><th>Supply Chain Strategy Implications</th></tr>
<tr><td>Product and service</td><td>No information about the customer</td><td>Limited differentiation of supply chain strategy</td></tr>
<tr><td>Demographics
Consumer: age, lifestyle, life cycle stage
Business: sector, turnover</td><td rowspan="3">Provide important profiling information that can be used in the communication and channel strategy</td><td>When linked to product type can be used for limited differentiation of supply chain strategy</td></tr>
<tr><td>Geography</td><td rowspan="2">Differentiate distribution strategy</td></tr>
<tr><td>Channel</td></tr>
</table>

Table 6: Summary of marketing and supply chain strategy implications of conventional market segmentation

Product and service segmentation: this involves dividing customers into groups depending on the products or services they buy. From a marketing perspective, this does not provide any information about the customer in terms of their motivations for buying the products, or the benefits they seek. Therefore this method of segmentation cannot be used to drive marketing activities. From the supply chain strategy perspective, different products can often be distinguished by their demand characteristics and service requirements which drive supply chain strategy (as described in step 4). This is not always the case, and different customers buying the same product will tend to exhibit different buying behaviours depending on the context in which they buy it.

Demographic segmentation: a market can be segmented on the basis of demographics - such as age and lifestyle for consumers and sector and turnover for industrial customers. From a marketing perspective this provides important profiling information which can be used for promotional and pricing activities. Demographics have no implications for supply chain strategy except when products have been developed for particular demographic segments.

Geography: this requires segmenting customers on the basis of their geographical location, for instance rural versus urban. As with demographics, this can provide marketing with important profiling information. From a supply chain perspective, geographical location can be used to differentiate distribution strategy.

Channel: routes to market are becoming more sophisticated and complex and are an increasingly important component of many winning customer propositions. For instance, in the past pet foods tended to be cheap, low quality and sold exclusively through supermarkets. But now premium pet foods are sold through veterinarians, breeders and pet stores. Like geographical location, channels help profile customers for marketing activities, and can be used to differentiate distribution strategy.

Step 1: Understand your firm's current approach to market segmentation and what activities it drives or differentiates by interviewing the sales, marketing and supply chain managers (example interview can be found in Appendix 8)

Here are two cases to illustrate the use of conventional segmentation and their limited implications for supply chain strategy.

Case Study 1

Segmentation by turnover at Cleanco (Harrison and Van Hoek, 2005)

<table>
<tr><td rowspan="2">National Accounts
70% sales
10 accounts</td><td colspan="3">Field Sales
30% Sales, 200+ accounts</td></tr>
<tr><td>Neighbourhood Retail</td><td>Discount Sector</td><td>Pharmacy</td></tr>
</table>

Figure 7: Cleanco's market segmentation by account size

A typical approach to segmenting industrial customers is by account size, or the turnover they account for. Cleanco - a manufacturer of cleaning products - provides a good example of such an approach, as illustrated in Figure 7. Two primary segments were defined on the basis of account size: national accounts where only 10 customers account for 70% of sale, and field sales which comprised a long tail of more than 200 smaller accounts. Due to the size of the field sales segment, a secondary segmentation approach was introduced by classifying customers according to channel type. This segmentation approach was simply a method of organising the sales and marketing function activities, but had few implications for supply chain strategy – only the distribution strategy was differentiated according to channel.

Case Study 2

Geographical segmentation at Autoco

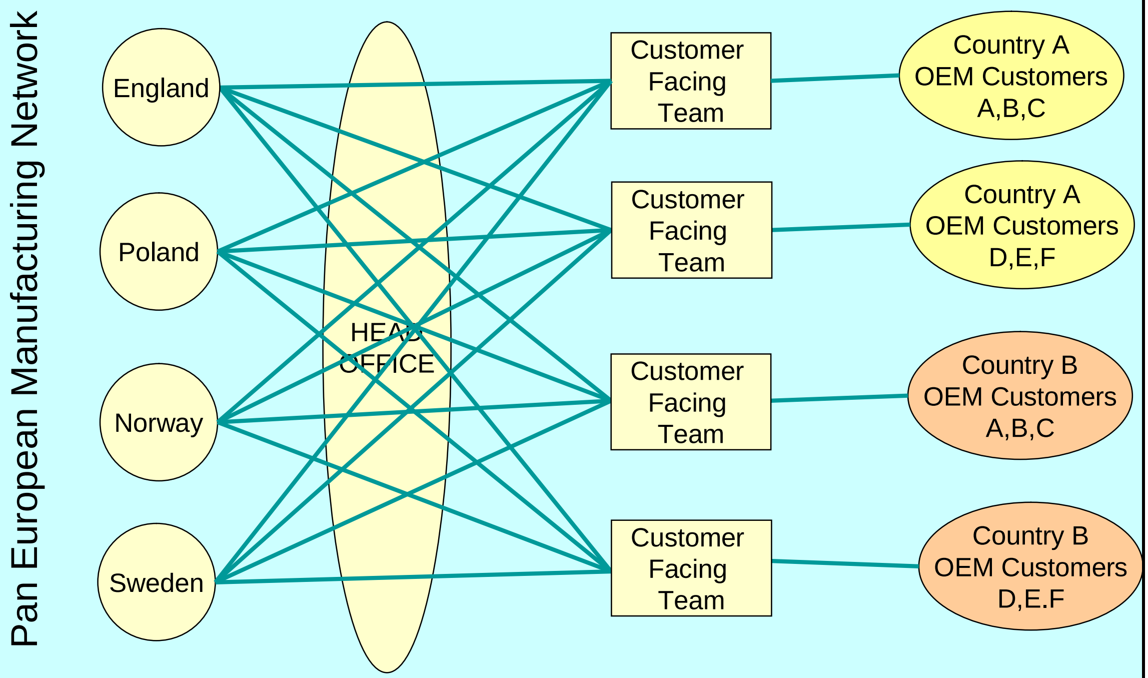


Figure 8: Autoco's geographical market segmentation approach

Autoco is a European manufacturer of automotive seat sub-assemblies. Customers are segmented by the country where the customer is located and by the automotive assembler (Original Equipment Manufacturer) which is often the second tier customer. Customer Facing Teams (CFTs) consisting of a sales manager, an engineer and a product designer were created to interface with both first tier seat assembler customers and 2nd tier automotive assembler customers in each of the market segments (as illustrated in Figure 8). They subsequently interface with the various manufacturing sites that fulfil the orders. Here the approach to market segmentation drove sales and product development activities. Only the distribution element of supply chain strategy was driven by the segmentation approach: some automotive assemblers required delivered components, while others required their components *ex-works*.

Step 2: understand buying behaviour relevant to supply chain strategy

Our earlier review of conventional market segmentation approaches showed that they have few implications for either supply chain or marketing strategy. In contrast behavioural segmentation has the potential to drive all supply chain processes and therefore can lead to the differentiation of supply chain strategy. But what aspects of buying behaviour are relevant to supply chain strategy, and how does the buying behaviour vary? This needs to be understood before either the customer value analysis is conducted or the supply chain strategy drivers are measured.

Buying behaviour is knowledge of, attitude towards and use of or response to a product (Kotler, 1996). Marketing behavioural variables include occasions, benefits, usage rate, buyer readiness stage and loyalty status. The following buying behaviours are relevant to supply chain strategy. (It can be seen later that they relate to the supply chain strategy drivers shown below in brackets and defined in the Glossary).

- Demand profile:
    - What is the quantity ordered over a given period of time (volume)?
    - What is the product range (variety)?
    - How variable are the order/call off quantities (demand variability)?
    - How uncertain are the order/call off quantities (demand uncertainty)?
- Service profile:
    - How quickly does the customer want delivery (order lead-time)?
    - What level of delivery reliability will they accept (delivery reliability)?
    - How frequently do they need deliveries (delivery frequency)?
    - How unique are the customers' product specifications (customisation level)?
- Customer relationship:
    - Is the relationship governed by long or short term contracts?
    - Can the relationship be characterised as a partnership or as transactional?
- Product:
    - Are new products or innovations important – how frequently are they required (product life cycle duration)?
    - What level of quality is required?

These aspects of buying behaviour are never consistent. Naturally they vary with customer - for example, business customers will tend to buy products in much higher volumes than consumers, who will tend to exhibit less consistent buying behaviour. Buying behaviour also varies with product. Across a given product line the demand for individual product items may vary dramatically. Pareto analysis often shows that 20% of product items account for 80% of volume demand.

For the customer review it is only necessary to consider the two selected customer and product combinations chosen in the scoping study. Therefore, exploring how buying behaviour varies with customer or product is not necessary at this stage. Buying behaviour is nevertheless likely to vary with the following:

- **Marketing activity -** promotions introduce demand peaks and troughs, increasing demand variability and often uncertainty as well. New variant/product introduction affect demand for other variants.
- **Context of purchase** tends to affect service required and demand profile. For example a direct current motor can be bought as a breakdown replacement (where the priority is short lead-time), or as part of a planned installation (where the priority is price).

- **Product life cycle stage –** service profiles vary with the stage in the product life cycle, as illustrated in Figure 9. Service priorities vary with life cycle stage, as shown by a study in the lighting industry by Childerhouse *et al.* (2002). During the uncertain introductory phase, design capability was the competitive priority. But as volumes increased in the growth stage, service level in terms of availability became the priority. Through maturity and saturation phases - as volumes peaked - price became the priority. During the decline stage, availability is once again the key competitive priority.

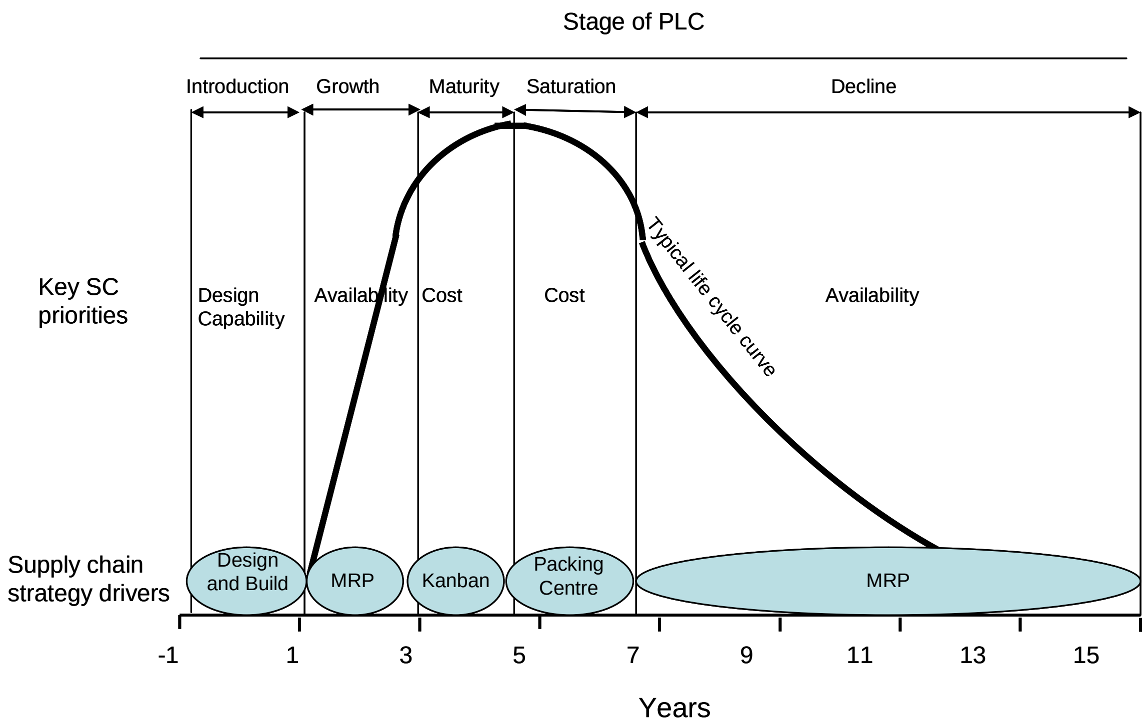


Figure 9: Competitive priorities vary with product life cycle stage (Source: Childerhouse et al, 2002)

Step 2: Understand buying behaviour relevant to supply chain strategy, and how it varies for the two selected customers and products by interviewing sales, marketing and supply chain managers (an example interview is provided in Appendix 9)

Case Study 3

Behavioural segmentation at Cleanco (Harrison and Van Hoek, 2005)

Cleanco, a manufacturer of cleaning products, helps to illustrate behavioural segmentation. The sales team recognised two significant types of buying behaviour displayed by their retail customer base (as shown in Figure 10). Volume-driven customers were very price sensitive and keen to capitalise on supply chain cost savings in order to pass them on to their customers to drive volume sales. There were two variants of the volume-driven behaviour: 'every-day low price' (EDLP) and discount. Retailers pursuing an EDLP strategy pursued continuous price reduction from suppliers like Cleanco to drive a fairly consistent, high volume of sales which resulted in a relatively stable pattern of demand. This was satisfied by a lean supply chain at Cleanco, where the focus was eliminating waste. On the other hand, 'discounters' were retailers who looked for bargains so they could 'stack 'em high and sell 'em cheap' - a strategy more likely to result in a volatile demand pattern (high variability and unpredictability). In general, Cleanco's second grade product was supplied through this channel. Margin-driven customers were keen to add value for their customers by offering a wide selection of products and value-adding services. This strategy also resulted in a relatively stable demand pattern. However, in order to deliver value-added services - many of which (such as shorter lead-times) were specific to certain customers - Cleanco proposed a more agile supply chain. This included excess capacity to enable a higher level of responsiveness.

Among a number of secondary factors which affected buying behaviour, promotions were by far the most disruptive. Although the promotions were generally planned well in advance with the retailers, they caused significant disruption to the supply chain operations due to the peaks and troughs in demand that they created. Consequently a segment was created specifically for promotions which were made to order at Cleanco.

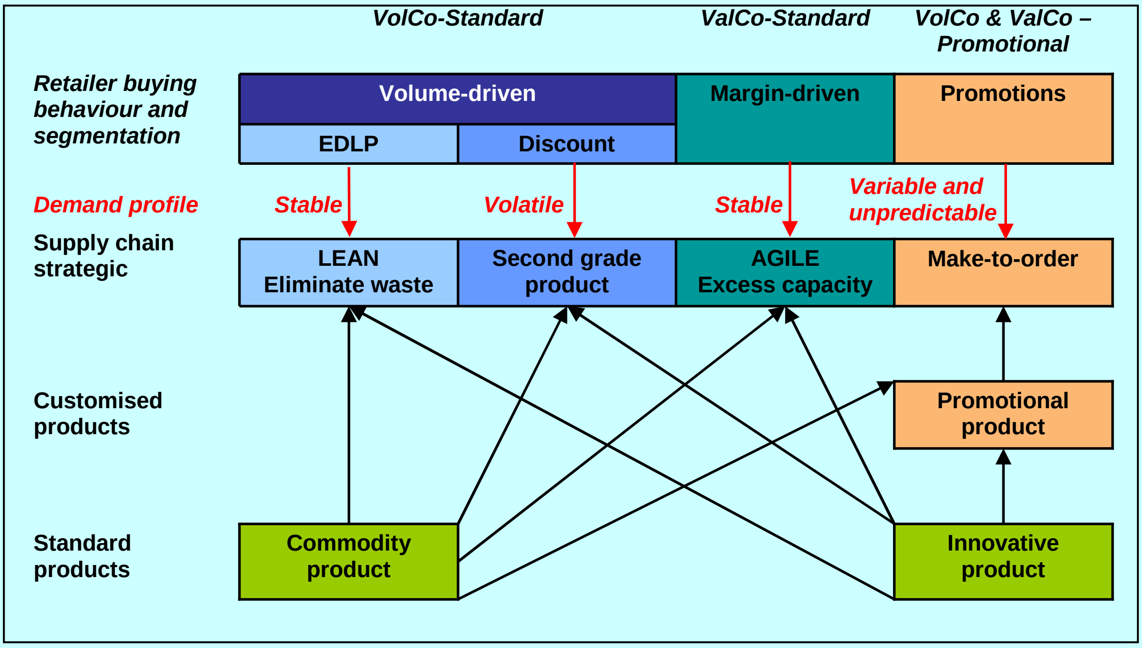


Figure 10: Proposed behavioural segmentation at Cleanco

Step 3: Analyse the customer value gap

Customer value is the customer perceived benefits gained from a product/service compared to the cost of purchase. The key issues here are that customer value is perceived by the customers and is not just about the benefits received but how they compare with price. In order to measure customer value you need to understand 'what aspects of the product or service a customer values' (Johnson, 2005). For the customer review we do not want to measure customer value par se, but are primarily interested in those aspects, or dimensions, of customer value that can be impacted upon by supply chain strategy. These are related to the buying behaviours below and are listed on the customer value questionnaire in Appendix 10:

- demand profile: e.g. ability to satisfy highly variable demand;
- service profile: e.g. provide products on short order lead-time;
- product features: e.g. provide high quality products.

You may want to include other aspects of service on your customer value questionnaire that are relevant to your firm. For example configuration of product for delivery – cases on a pallet or crate of items.

Customer value is measured by administering a questionnaire to the customers to assess their perception of the following, for each of the various dimensions of customer value:

- level of importance (apportioning 100 points);
- performance rating of your firm and a key competitor (using a Likert scale);
- price level of your firm compared to the competitor (using a Likert scale).

It is important to note that customer value is not static and in fact varies with buying behaviour. It is therefore necessary, before administering the questionnaire, to understand (as described in step 2) what has the greatest influence on buying behaviour for your two selected customer/product combinations. Does buying behaviour vary most dramatically with marketing activity, context of purchase or product life cycle stage? Whatever the answer, the customer value questionnaire should be administered for two buying situations that result in distinct buying behaviour, e.g. product launch and steady.

Analysis of the customers' response to the customer value questionnaires can provide the following analyses (as illustrated later by the Autoco case):

- ***Total customer value gap analysis*** allows the total value delivered by your firm to be compared to that delivered by your competitor against price levels. This demonstrates the overall value gap between the two firms and which firm is more competitive in the eyes of the customer. The total value is calculated by summing the product's importance and performance for all the dimensions of customer value.

- ***Dimensional customer value gap analysis*** enables a comparison of the value delivered by your firm compared to your competitor for each of the dimensions of customer value. This illustrates the value gaps against specific dimensions of value, i.e. areas where your firm's competitor is delivering more value (in the eyes of the customer). Consequently this allows your firm to identify specific aspects of supply chain performance which need to be improved to close the customer value gap. The value for each dimension of customer value is the product of importance and performance.

Step 3: Administer the customer value questionnaire (an example is provided in Appendix 10) to purchasing and logistics managers from the two selected customers. First it will be necessary for them to select a key competitor of your firm, and for you to decide whether it is worth administering the questionnaire for more than one buying situation, e.g. launch and steady state. Analyse the customers' response to provide a total customer value gap analysis and a dimensional customer value gap analysis.

Case Study 4

Autoco total customer value gap analysis

Total value delivered by Autoco, compared with its main competitor, are plotted against price levels for both product launch and steady state in
Figure 11. This shows that during product launch the competitor is providing greater customer value than Autoco for a marginally higher price and is therefore more competitive during product launch. In contrast, once steady state is established Autoco provides significantly more value for a marginally lower price and therefore is considerably more competitive at this stage in the life cycle.

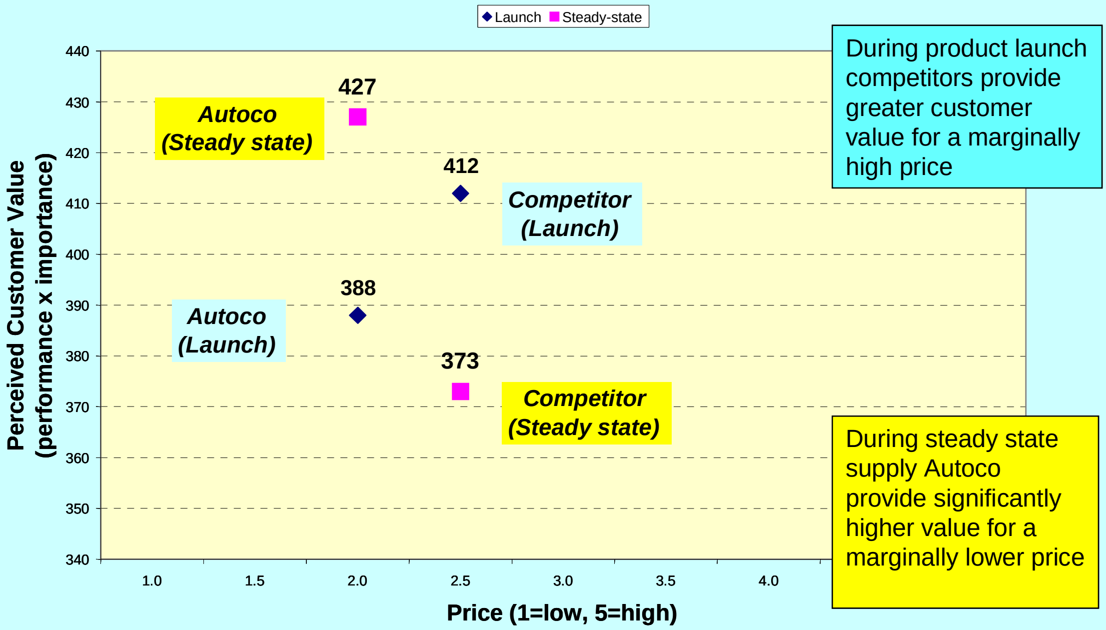


Figure 11: Total customer value gap analysis perceived by customer A/BMW

Autoco dimensional customer value gap analysis

The plots in Figure 12 show the value gaps, across specific dimensions of value, between Autoco and its competitor. During product launch, when Autoco is less competitive, Autoco is perceived as providing lower value on order lead-time and delivery reliability than its competitor. This suggests that Autoco needs to examine its supply chain performance in these areas to identify improvements. During steady state, when Autoco is more competitive, it is perceived as providing value superior, or equal, to its competitor on all dimensions except quality.

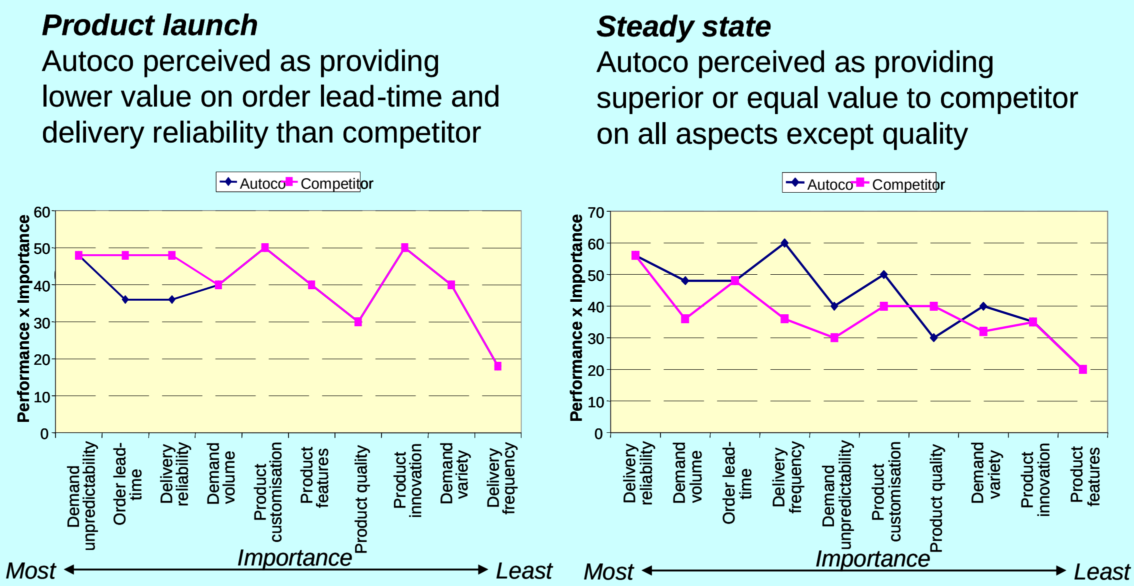


Figure 12: Dimensional customer value gap analysis perceived by Autoco Customer A/BMW during product launch and steady state

Step 4: Measure supply chain strategy drivers

Supply chain strategy drivers are the various characteristics of demand placed on your firm's products, and the service required by your customers. In turn, these drive important aspects of supply chain strategy. These are shown in Figure 13 (and defined in the Glossary) and have been used as the basis for examining buying behaviour and customer value. Supply chain strategy drivers link marketing and supply chain strategy because they are used as the basis for market segmentation.

There are well established links between the various aspects of the demand profile. In general, as product variety increases so does demand variability and uncertainty at end item level, and demand volume will tend to decrease. It is important to distinguish between demand variability and uncertainty. Demand variability is the changes in demand (orders, or call-offs for make-to-stock) over a sequence of time buckets.

Demand uncertainty is the change in demand for a given time bucket as it moves in time and approaches the delivery due date. It is measured by sales forecast accuracy.

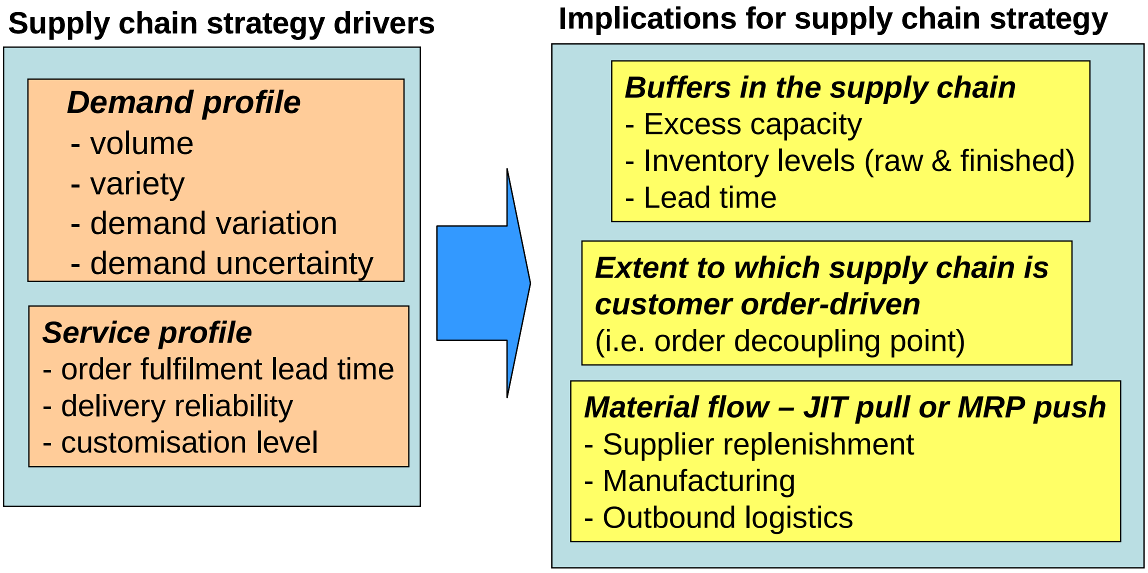


Figure 13: Supply chain strategy drivers and their implications for supply chain strategy

Some of the key implications for supply chain strategy are shown in Figure 13. Almost all aspects of demand profile and service profile have implications for these characteristics of supply chain strategy. Higher levels of demand variability and uncertainty imply the need for larger buffers to enable the supply chain to respond while still providing high levels of service. Buffers can be in the form of excess capacity in manufacturing or transport, inventory levels and quoted lead times. Also the level of demand variability has important implications for the control of material flow. A just-in-time (JIT) pull system using *kanban* only operates effectively when demand is relatively stable. Conversely, material requirement planning (MRP) push systems can cope with highly variable demand. However, MRP systems rarely support the provision of short order lead-times.

Required service levels also have implications for these key supply chain strategy characteristics. The order lead-time clearly dictates the extent to which the supply chain can be order-driven. If a very short order lead-time is required, it may be necessary to make-to-stock (MTS) and provide local warehousing or vendor managed inventory. In some cases, however it is not possible to MTS because the product is customised or provided in such high variety that finished stocks are not economically viable. In this case the provision of buffers in terms of excess manufacturing capacity and raw material stocks can support a short order lead-time.

Measures of the various supply chain strategy drivers can be used to provide a profile, as shown in the Autoco case. It is important that these measures are related to both the extreme highs and lows, and the average levels experienced by your firm to put the profile in context. The supply chain strategy profile provides quantitative evidence to identify and define market segments.

It is important to note that supply chain strategy drivers are not static and in fact vary with buying behaviour. As with the customer value questionnaires it is therefore necessary, before conducting the interviews, to understand (as described in step 2) what has the greatest influence on buying behaviour for your two selected customer/product combinations. Ideally the interviews should be conducted for two buying situations that result in distinct buying behaviour – for example, product launch and steady state.

Step 4: Understand supply chain strategy drivers of the two selected customers by interviewing sales and supply chain personnel and gathering demand profile and service profile data (an example interview is provided in Appendix 11). Wherever possible actual measures should be used to quantify the drivers and their respective maximum, average and minimum levels experienced by your firm.

Case Study 3

Autoco supply chain strategy profile

The supply chain strategy profiles (shown in Figure 14) developed for Autoco during a 'steady state' period show that both customers want 100% on time in full delivery performance and the same high level of product quality. However they differ in that customer A demands relatively high volume on a shorter lead-time with a higher delivery frequency and customer B exhibits relatively unpredictable demand and the products are generally more customised (i.e. a greater proportion of the product is unique to that customer).

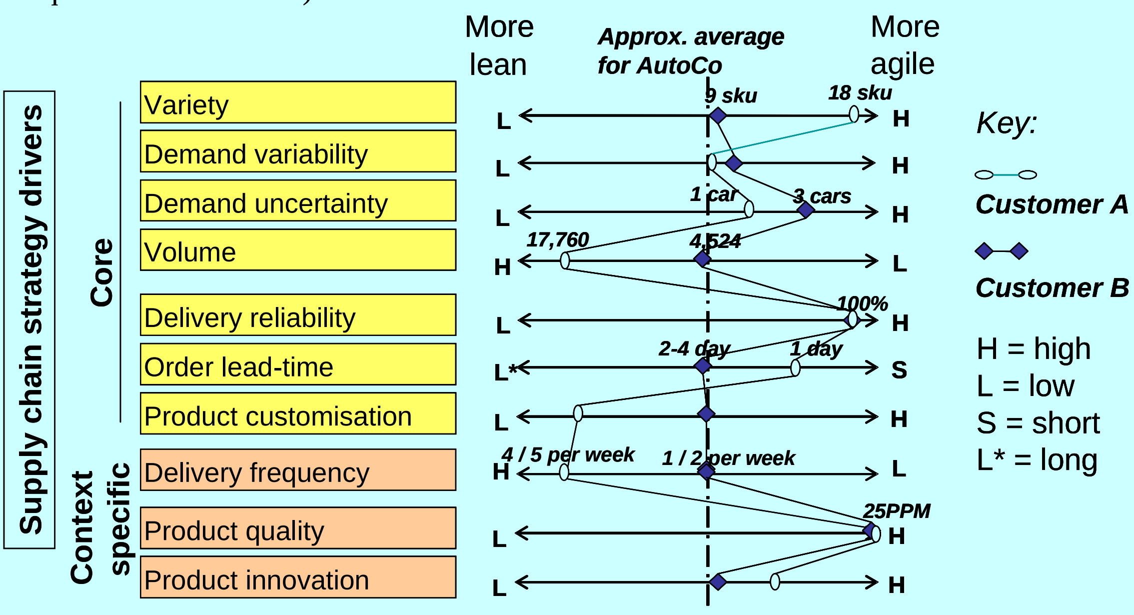


Figure 14: Supply chain strategy drivers for Autoco customers during steady state

Step 5: Identify future potential market segmentation approach

Now for the two selected customers and products you:

- understand customers' buying behaviour, relevant to supply chain strategy, and how it varies;
- have the supply chain strategy drivers profile in the context of the extremes experienced by the firm.

On the basis of these analyses it is possible to define two potential segments for the two selected customer/product combinations and to understand which buying situations they are applicable to. In the Autoco case customer A required relatively high volume on a short order lead-time delivered at a high frequency. Customer B on the other hand required fulfilment of more unpredictable, low volume demand for a more highly customised product. This was in a steady state situation although Autoco believed the customers' requirements were not significantly different for product launch. The requirements of these two customers represent future potential market segments.

Step 6: Analyse alignment gaps

The steps described in the customer review contribute to identifying and exploring the customer value and demand fulfilment-creation alignment gaps as shown in table7.

Table 7: How the customer review steps contribute to identifying and exploring the alignment gaps

	Demand fulfilment-creation alignment gap	Customer value alignment gap
Step 1: Understanding current market segmentation approach	Identify gap	
Step 3: Customer value gap analysis		Identify and explore gap
Step 5 (enabled by steps 2 and 4) Identify potential supply chain relevant market segmentation approach	Explore gap	

Identifying and exploring demand fulfilment-creation gap

When you understand what activities are driven by your firm's market segmentation approach (refer to step 1) it is useful to plot them on a diagram such as that in Figure 15. For both Autoco and Cleanco it can be seen that the only supply chain process driven by the market segmentation approach is distribution (deliver). This does not allow the full differentiation of the supply chain strategy (which encompasses plan, source, make and deliver) and therefore contributes to the alignment gap between supply chain strategy and marketing strategy and indeed customer needs.

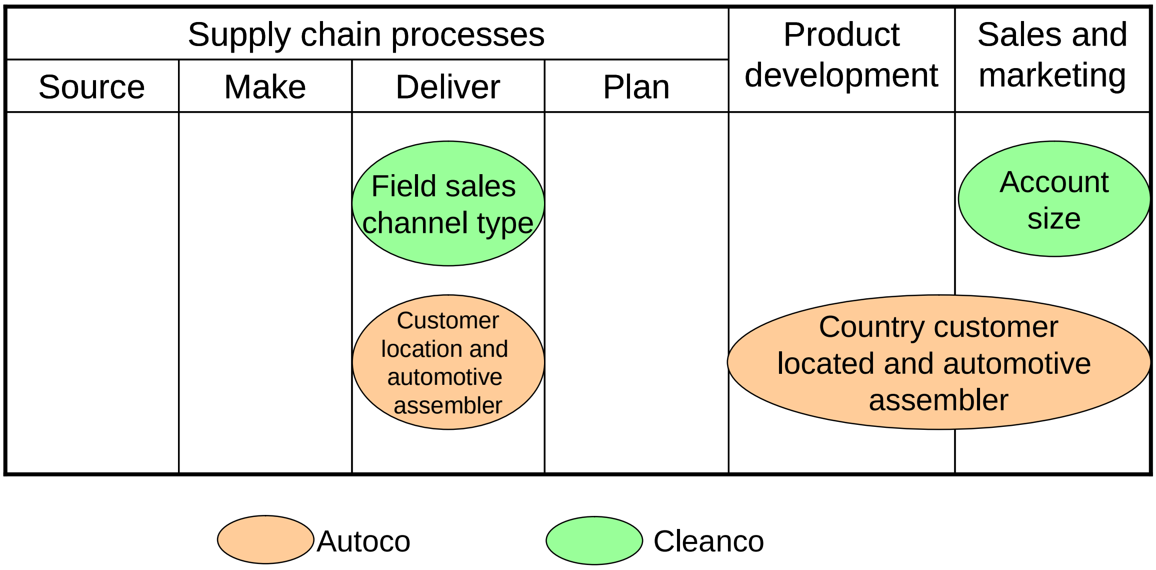


Figure 15: Activities driven by Cleanco's and Autoco's market segmentation approaches

To explore this gap further requires the identification of a future potential supply chain relevant segmentation approach as described in step 5. This is used during the next step of situation analysis, supply chain review, to identify alignment gaps between the existing supply chain strategy and customer needs.

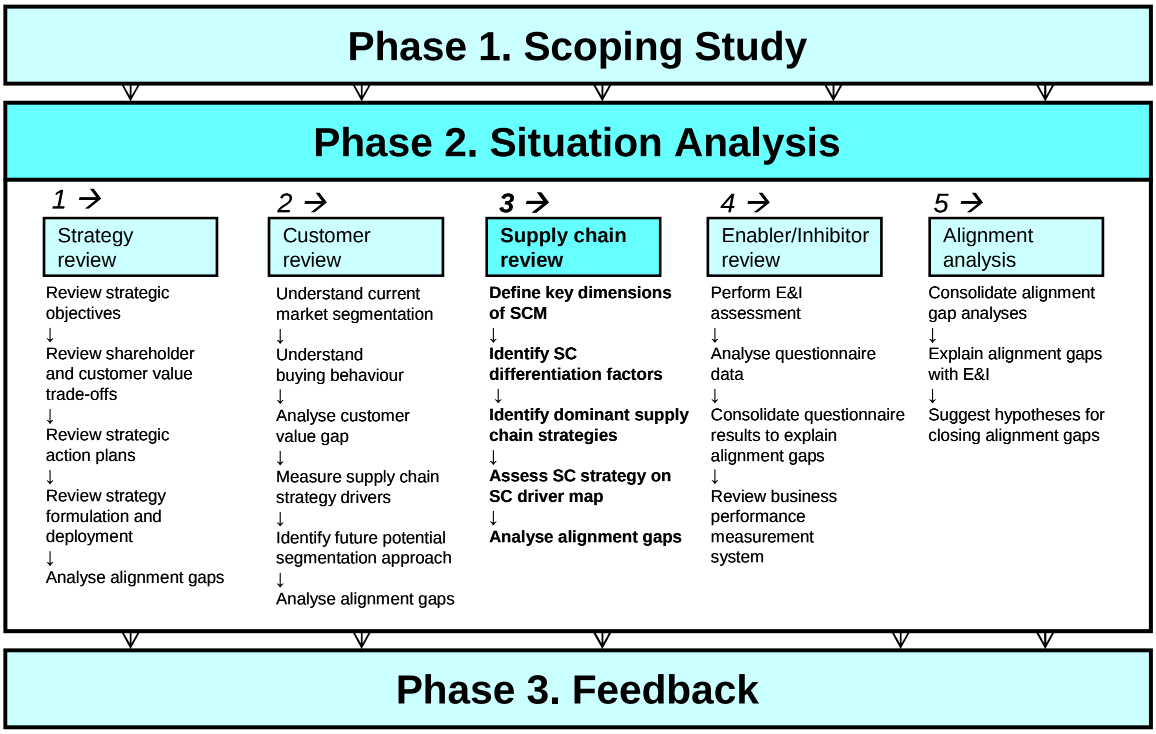
Identifying and exploring the customer value alignment gap

The dimensional customer value gap analysis described in step 3 enables a comparison of the value delivered by your firm compared to your competitor for each of the dimensions of customer value. This illustrates the customer value gaps against specific dimensions of value, which enables your firm to identify specific aspects of supply chain performance which need to be improved. It should be noted that customer value is not static and the customer value charts represent snapshots of a point in time. Typically customer value is assessed for more than one buying situation (e.g. product launch and steady state) depending on how buying behaviour varies for the customer in question (see step 2).

Long term implications

Beyond situation analysis, as part of a more detailed design phase, you can expand this segmentation approach by examining further major customers and product families to develop an overall segmentation strategy. This will have the potential to drive a differentiated supply chain strategy as described in the next section.

Supply chain review



Purpose

The purpose of supply chain review is to describe current supply chain processes and understand the current degree of alignment of a supply chain;

1. between the supply chain process strategy and customer needs;
2. among the supply chain processes (plan, source, make, deliver and new product introduction).

The outputs of supply chain review are:

1. key strategic dimensions of supply chain processes (plan, source, make, deliver and new product introduction)
2. evaluation of current degree of alignment
   a. between the supply chain process strategy and customer needs
   b. among the supply chain processes (plan, source, make, deliver) and new product introduction

Rationale

In reality, no single supply chain can satisfy all customers. From the customer review we know that the same product might be subjected to different supply chain strategy drivers depending on the customer or different stages of its product life cycle. Perhaps you have also realised that your current supply chain is not capable of fulfilling the needs of all customers, or delivering all the shareholder objectives. In order to improve the alignment between the supply chain strategy and customer needs, it may be necessary to develop more than one supply chain strategy. Therefore, it is important to evaluate the degree of alignment between the supply chain process strategy and customer needs, and among the supply chain processes (plan, source, make, deliver) and the new product introduction process.

To perform a supply chain review, the following steps 1 to 3 assist you to examine your overall supply chain process strategy while the last two steps (4 and 5) look at how your supply chain strategy fulfils the needs of the two identified (polar extremes) customers.

Step 1: Define key dimensions of supply chain management

According to Christopher (1998), supply chain management (SCM) is *"the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole"*. Apart from relationship management, SCM is also about integration of business processes across supply chain members. Thus, Harrison and van Hoek (2005) define SCM as *"planning and controlling all of the processes that link together partners in a supply chain in order to serve the needs of the end-customer"*.

Three key dimensions of SCM - supply chain scope, objectives and strategy - are useful when defining the meaning of SCM in a focal firm:

- *Supply chain scope* refers to the chosen scopes of ownership, control and influence by the supply chain of a firm. A firm may choose to allow its supply chain to manage – all or in part – the plan-source-make-deliver processes within selected geographical areas. On the other hand a firm may choose to extend its own processes into supplier or customer operations. Such actions influence the scope of the firm's supply chain.
- *Supply chain objectives* normally refer to operational objectives such as cost, quality, delivery reliability, delivery responsiveness (speed) and delivery flexibility.
- *Supply chain strategy* comprises the set of principles, processes and action plans used to manage the supply chain. For example, firms might apply lean, agile or hybrid strategies. At the planning level, a firm might choose to apply a make-to-order (MTO) strategy while another may select a make-to-stock (MTS) strategy, or a hybrid of these strategies, which vary the level of postponement. A firm might also like to supply its products by discrete deliveries or on a continuous replenishment basis.

Firms have their own views on the meaning and scope of SCM and therefore they have different supply chain objectives and strategies. Examples of SCM definitions from different firms emphasise 'the management of supplies and suppliers', 'the management of outbound logistics', and 'the planning of production and delivery'. Different views on SCM drive the scope of supply chain processes, and therefore greatly influence the delivery of customer value and alignment between different supply chain processes. There is a need to clarify the meaning of supply chain management - its scope, objectives and strategies - in your firm.

Step 1: Interview the top management and supply chain director to determine how they define supply chain management (SCM) for your firm; and how they perceive the scope, objectives and strategies of your firm's supply chain organisation. A template is provided in Appendix 12.

Table 8 shows a completed view of SCM, its scope, objectives and strategies for an Autoco firm.

Table 8: Meaning, scope, objectives and strategies of SCM for Autoco

SCM for Autoco Firm	
Supply chain management (SCM) means	Managing the entire supply chain, ordering in raw material, setting up purchase orders, sourcing of right products to delivery to meet on-time delivery
SCM scope	Own and control the processes of purchasing, logistics management and planning for finished goods inventory to fulfil customer orders, not specific influence over suppliers and customers
SCM objective	Reduce operational costs and achieve 100% on-time in full delivery
SCM strategies	Predominantly a lean strategy (make-to-stock) by *kanban* pull production to replenish finished goods stock

Step 2: Identify supply chain differentiation factors

At the next level, we can view supply chain strategies in terms of each supply chain process (plan, source, make, deliver) and the new product introduction process. For each supply chain process, you may already have different strategies which are differentiated by certain factors. Strategy differentiation is the factor which drives a firm to respond with different strategies. It refers to one (or more) of the supply chain drivers (introduced in the customer review section) which are used to decide the needs of different supply chain strategies, usually for supplying to two customer groups or product groups of polar extremes in terms of service requirement and demand characteristic. Examples of differentiation factors are cost, lead-time, material type, customer type, dependency in terms of business volume, demand uncertainty, and stability of supply. For example, a firm might supply products to two very distinct groups of customers, one with highly predictable demand, another with high unpredictable demand. Demand uncertainty becomes the differentiating factor when there are different supply chain strategies for these two polar extremes (for example a lean strategy for predictable demand, and an agile strategy for uncertain demand).

Step 2: Interview the supply chain director, supply chain process owners (for plan, source, make, deliver) and new product introduction process owner (templates are provided in Appendix 13). Map these processes and identify the corresponding strategies currently applied; their respective strategy differentiation factors; and the product, customers, or material groups these strategies are specifically intended for.

Table 9: Sourcing strategy and its differentiation factors for Autoco

Sourcing process	Strategy	Differentiation factors	Applicable for materials/suppliers
Strategy 1	Component management	Unit cost, material type	Consumable/low cost items
Strategy 2	VMI/daily replenishment	Distance (lead-time)	Local national suppliers
Strategy 3	Consignment stock	Distance (lead-time) and supplier dependency	Remote suppliers with high dependency
Strategy 4	Batch purchase	Distance (lead-time) and supplier dependency	Remote suppliers with low dependency

Table 9 shows an example of the different strategies for the sourcing process at Autoco. The firm currently has four sourcing strategies, each of them differentiated by factors such as unit cost, material type, distance (lead-time) and supplier dependency. From the interviews, it is apparent that Autoco does not differentiate sourcing strategy based on the typical volume dimension. Its desired sourcing strategy is VMI/daily replenishment (strategy 2), but implementation is constrained by geographical distances with some suppliers. The same approach can be applied to plan, make, deliver and new product introduction processes, see Appendix 13.

Step 3: Identify dominant supply chain strategies

Among the different strategies for each supply chain process, there may be one or two dominant ones. Some firms operate with several supply chain strategies, but one of them dominates. Typically, this serves most customers, while there may be secondary strategies which can differ from - or are a variant to - the dominant strategy.

Step 3: Identify the dominant strategy for each supply chain process and new product introduction process. Generally, a strategy is considered as the dominant strategy for a focal firm when it is used for at least 50% of its customers or revenue accounts. A template for conducting this step is provided in Appendix 14.

Table 10 shows the current dominant strategies for Autoco. These current dominant supply chain process strategies constitute the key elements of the as-is supply chain strategies, but they are not necessarily the desirable ones.

Table 10: Dominant and secondary supply chain process strategies for Autoco

Supply chain process	**Current SC strategy:** **Dominant (>50%)** **Secondary (<50%)**	**Customer's demand, service, and product profiles supported by the dominant strategies**
Plan	*Dominant*: kanban pull to finished good stock *Secondary*: make-to-order	Predictable and stable demand, short lead time, frequent delivery
Source	*Dominant*: Batch purchase and component management *Secondary*: VMI/daily replenishment & consignment stock	Predictable and stable demand, long lead time, less frequent delivery
Make	*Dominant*: Assembly to stock with 2 value streams *Secondary*: Make-to-order	Predictable and stable demand, short lead time, frequent delivery
Deliver	*Dominant*: No strategy – customer pick up *Secondary:* Special freight	Depends on customer's logistics arrangement
NPI	*Dominant*: Customer-driven, apply customer specified NPI process *Secondary:* none	Predictable and stable demand, long lead time, less frequent delivery

Table 10 also shows the suitable types of products and customers for each dominant supply chain strategy guided by the theory shown in Figure 16. The choice of appropriate supply chain strategy in Figure 16 is dependent on the combinations of service and demand profiles. Service profile refers to the characteristics of service requirements experienced by a firm in terms of order fulfilment lead-time, delivery reliability and customisation levels. Demand profiles refer to the characteristics of demand experienced by a firm in terms of demand variability, demand uncertainty, product variety and demand volume. Demand characterised by low uncertainty and relatively constant volumes are considered as 'stable', while high uncertainty and variability are considered 'volatile.'

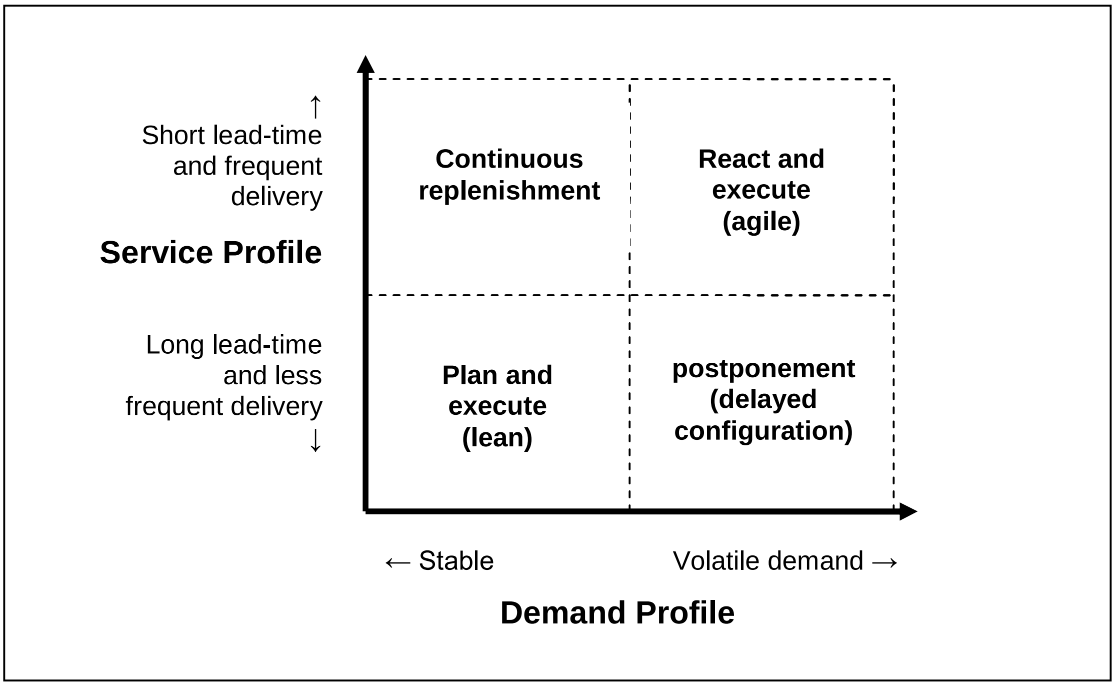


Figure 16: Four potential supply chain strategies

Four potential strategies are:

- *Continuous replenishment:* aims to replenish what has been bought by frequent and regular supply. It is most suited for products which are sold at predictable demand with steady demand rates. Fast-moving consumer products and parts supplied just-in-time are examples where continuous replenishment strategies are most often used.
- *Lean (plan and execute):* aims for the most efficient methods of production and delivery by reducing waste in the system. Since demand is known or determined in advance, products are planned and made in efficient batches to customer orders. There is relatively less waste and inventory – at least inbound in the supply chain. The strategy is however prone to excessive inventories of finished product outbound. Volume auto products are typically produced by means of this strategy.
- *Postponement (delayed configuration):* aims to postpone final assembly, sub-assembly or configuration of products until the customer order is known. This is suitable for product families with high demand uncertainty. Postponement is made possible because order fulfilment lead-time is long enough to respond. The shorter is the fulfilment lead-time, the more postponement one can achieve.
- *Agile (react and execute):* aims to address uncertain and highly variable demand, where customers nevertheless require short order fulfilment lead-times. The strategy prioritises investment in shorter lead-times, and building up processes which can respond quickly to volatile demand.

It is possible for a firm to blend two or three of the above strategies together. Figure 16 does not suggest four 'discrete' strategies because the service and demand profiles represent more a continuum than discrete profiles. Thus, it is useful for a firm to define 'stable demand' in terms of the ranges of demand forecast accuracy (in percentage) and demand variability (in percentage). For example, demand with forecast error below 10% can be considered 'stable'. The same principle can be applied to the service profile. Figure 16 might not be universally applied. The choice of supply chain drivers to represent service and demand profiles vary from one supply chain to another. For example, delivery frequency is less important to a firm where all customers require the same standard: other drivers may have higher priority.

Step 4: Assess supply chain strategies on supply chain driver map

The previous step has identified dominant supply chain strategies for each supply chain process. Table 10 shows how these dominant supply chain process strategies fit with particular demand/service profiles.

Step 4: Locate the dominant supply chain strategies identified in step 3 (Table 10) onto a supply chain strategy map (as provided in Appendix 15). Then, using results from the customer review (step 4: measure supply chain drivers), position the two polar extreme customers on the supply chain strategy map using their service and demand profiles.

Step 4 allows us to assess the current dominant supply chain process strategies against the demand and service profiles. Figure 7 shows an example of supply chain strategy assessment at Autoco. Based on Table 10, Autoco locates the dominant plan and make process strategies on the quadrant with stable demand, short lead-time and frequent delivery. This is because production planning and delivery have been largely based on the principle of just-in-time/continuous replenishment. The delivery process is not located on the supply chain driver map because Autoco did not define a delivery strategy. However, the source and NPI processes are predominantly suitable for products with stable demand and with relatively less frequent and longer lead-times, largely due to the long lead-time batch purchase and the NPI process. Further, the delivery process is not assessed because it is mainly carried out by the customers. Autoco has little influence on the delivery process strategy.

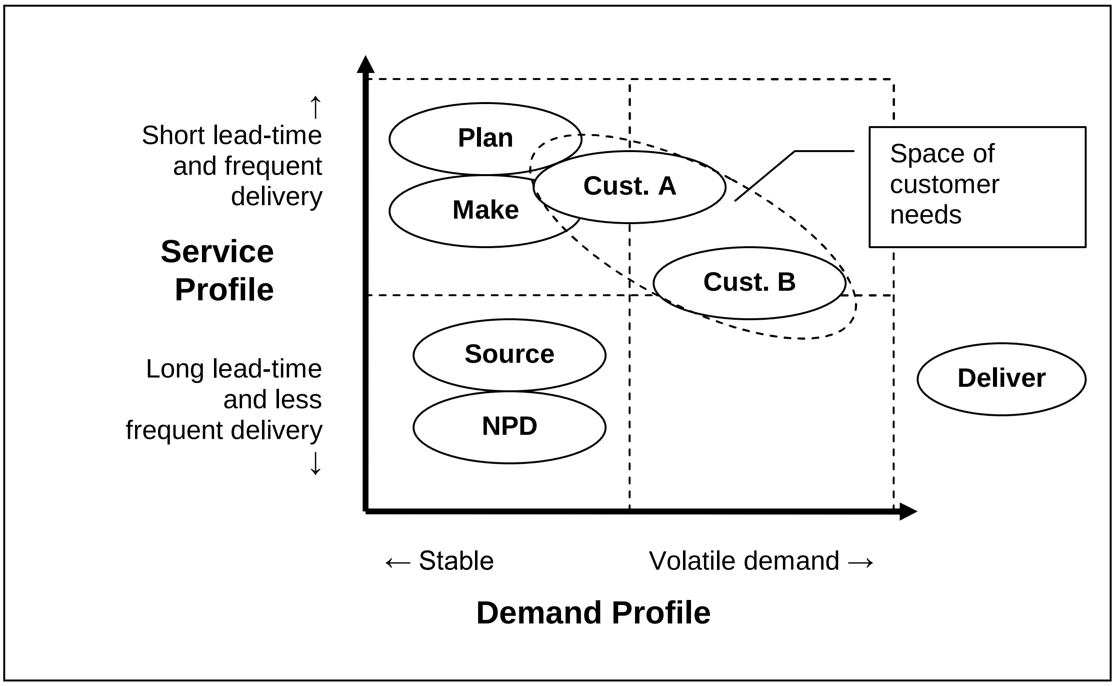


Figure 17: Assessing the dominant supply chain process strategies of Autoco on a supply chain driver map

As shown in Figure 17, the two Autoco customers are located based on their demand and service profiles. Customer A is shown as larger than customer B because of its higher sales volumes. Demand from customer A is typically high volume and stable, with a shorter lead-time and higher delivery frequency. Demand from customer B is relatively uncertain, with longer-lead times and a lower delivery frequency. Assuming that both customers you have chosen represent two extreme buying behaviours, then the area covering both customers A and B in Figure 177 represents the entire ‘space’ of customer needs. All supply chain process strategies should reside within this space in order to achieve perfect alignment.

In addition to reviewing the dominant supply chain process strategies, you can also include secondary strategies. This is important, because some of the secondary strategies could be more appropriate for important customers. Figure 18 shows the dominant and secondary supply chain process strategies for Autoco. It becomes apparent that the secondary plan, source, make, and delivery processes (‘p’, ‘s’, ‘m’ and ‘d’ in Figure 18) are more aligned with customer B, while the secondary sourcing process is more aligned with customer A. Figure 17 and Figure 18 will become the essential basis for alignment analysis in the next step.

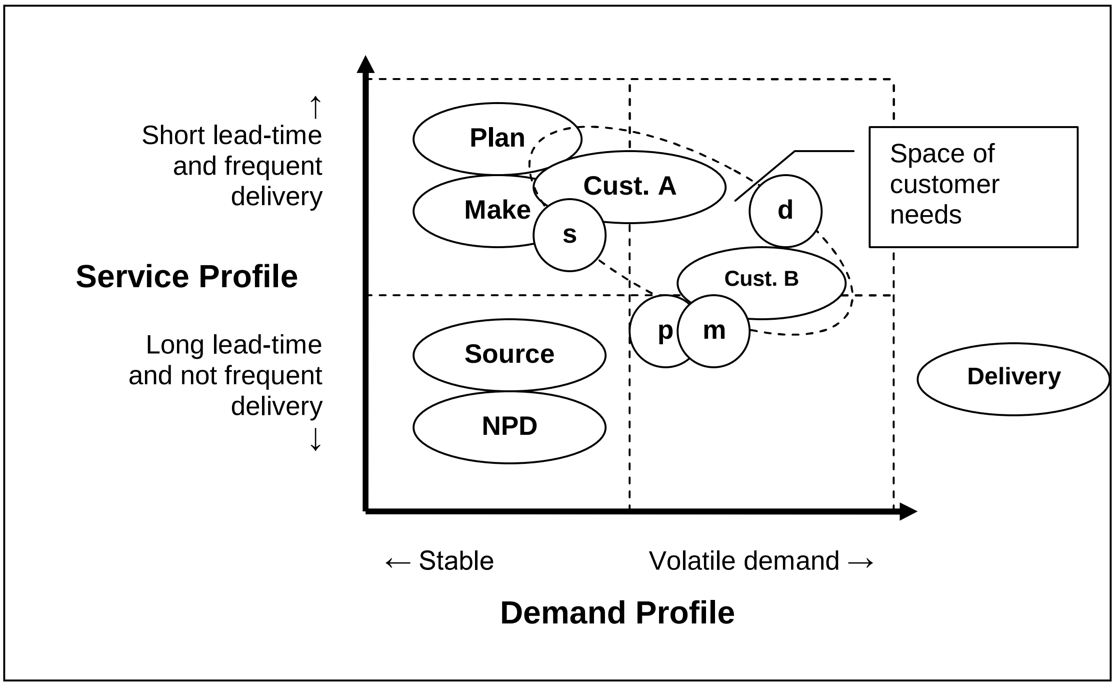


Figure 18: Assessing the dominant and current supply chain process strategies of Autoco

Step 5: Assessing degree of alignment for supply chain processes

Perhaps you can now find some misaligned supply chain processes at Autoco from the supply chain driver map in Figure 17 and Figure 18. In this step, you can evaluate the following alignment gaps for supply chain process strategy (see Figure 3):

1. *Supply chain process gap* (Gap 3).
2. *New product introduction process gap* (Gap 4).
3. *Customer value gap* (Gap 5). The alignment gap between supply chain strategy and customer needs is important to assess because it reveals whether the supply chain strategy is designed to satisfy most customer needs.

Step 5(1): Compare the 'space of customer needs' with the current dominant supply chain process strategies on the supply chain driver map (Figure 17 and Figure 18 in step 4) to determine if supply chain process strategies are located within this space. Supply chain processes outside the 'space of customer needs' are not aligned with most customer needs.

Step 5(2): Compare the relative location of the supply chain process strategies (plan, source, make and deliver) to determine if they are located in the same area of the supply chain driver map (Figure 17 and Figure 18 in step 4). A large

distance between two supply chain process strategies indicates that these two strategies are not aligned.

The above two steps lead to assessment of the degrees of alignment. A template for conducting this step is provided at Appendix 16. An example of the alignment gaps discovered from the Autoco case is presented in Table .

Table 11: Alignment assessment for supply chain process of Autoco Firm

Alignment areas	Alignment evaluations
Gap 5: between the supply chain strategy and customer needs	• The space of customer needs covering customers A and B represent the polar extremes which fall into the following demand and service profiles o Demand profile – from stable to volatile demand (10% forecast errors up to 30% forecast errors) o Service profile – short lead-time (1 day to 1 week) and frequent delivery (daily and weekly) • Plan and make processes are relatively more aligned with customer A • Source and NPD processes are not aligned with customer A or customer B • All supply chain processes are not aligned with customer B
Gap 3: among the supply chain core processes (plan, source, make, deliver and new product introduction)	• The current dominant supply chain process strategies cover the following demand and service profiles o Demand profile – stable demand only o Service profile – from short lead-time and frequent delivery to long lead-time and less frequent delivery • Plan and make processes are aligned with stable demand with short lead-time and frequent delivery • Source and NPD processes are aligned with stable demand with long lead-time and less frequent delivery • Sourcing and NPD processes are not aligned with the plan and make process • There is a need to define delivery strategy

The above alignment gap analysis clarifies the various misaligned marketing and supply chain strategies. The project team at Autoco may use the alignment gap analysis to propose a desirable or preferred supply chain strategy during the feedback, in which the outcomes of the supply chain review will be presented.

Implications

The above five-step supply chain review provides us with an assessment of the current supply chain process strategy in terms of its alignment with customer needs, and the alignment between supply chain processes. A possible preferred supply chain strategy for Autoco is shown in Figure 19, considering the needs of key customers, and strategic competitive advantages against its competitors.

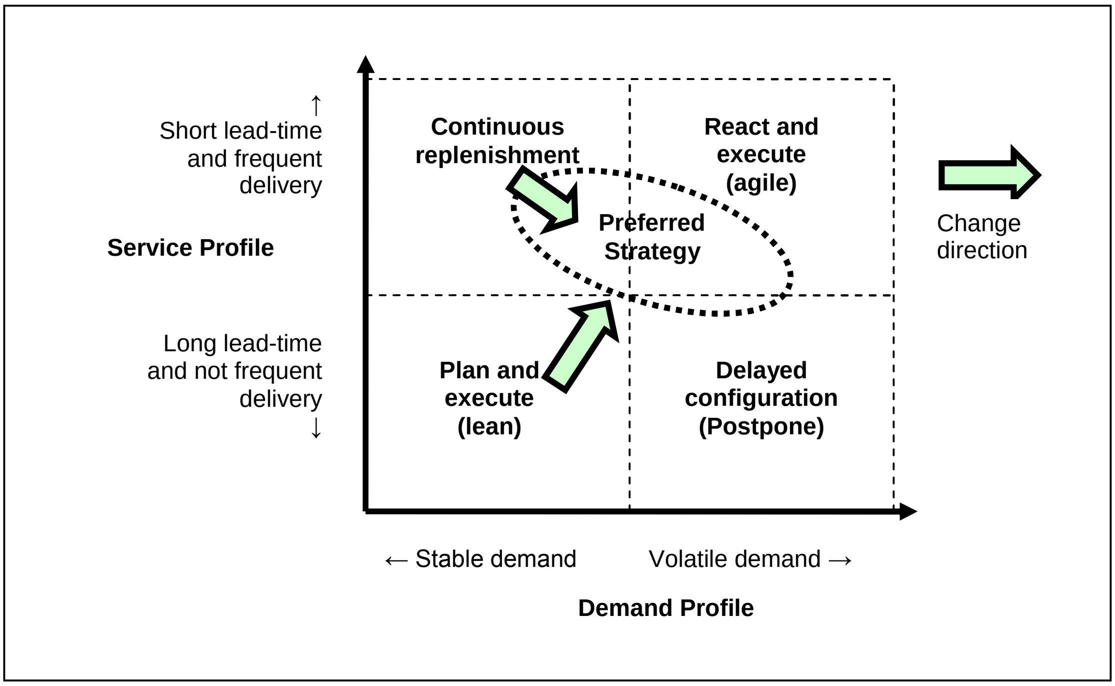
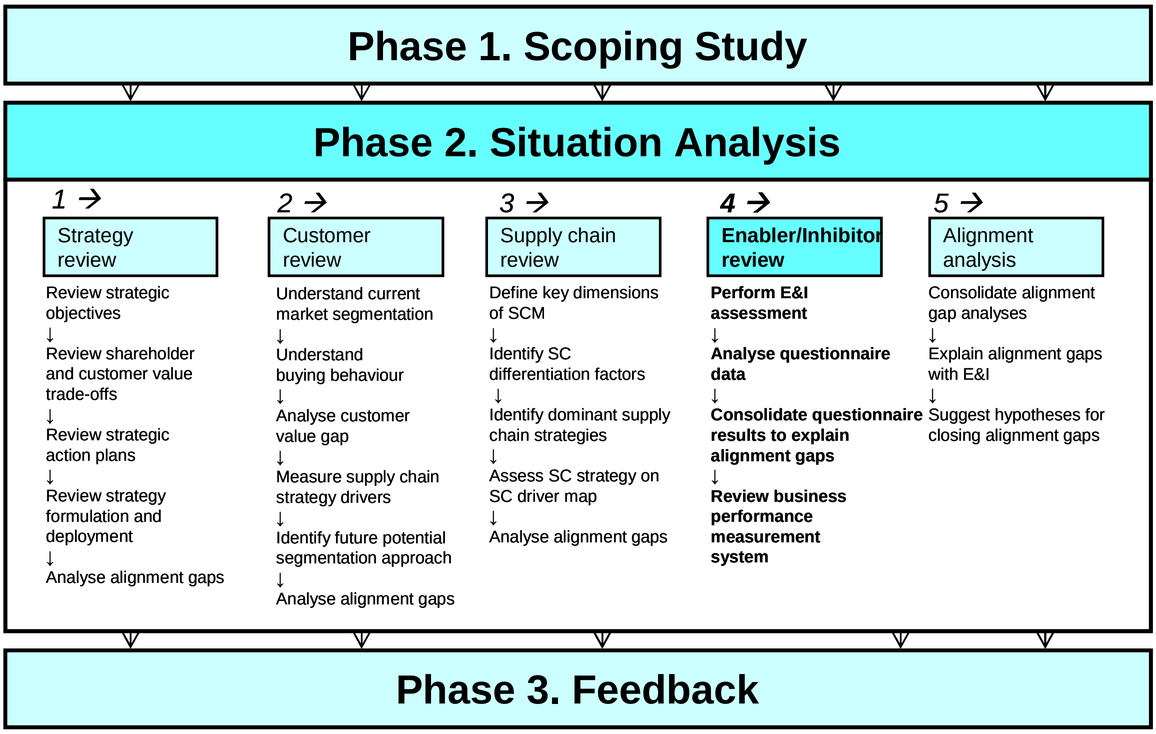


Figure 19: Implications of alignment analysis at Autoco

The simple five-step supply chain review and the above 2x2 matrix may be somewhat oversimplified, but provide us visibility and a basis for choosing the 'right' supply chain process strategy in order to meet customer needs.

Enabler/Inhibitor Review



One of the basic concepts underpinning this Guide is that sustainable business performance results from achieving the right balance between shareholder and customer needs. However, it is not enough to define the strategy to align shareholder and customer needs. We next need to identify the potential enablers or inhibitors (E&Is) to the alignment efforts.

As part of this project a core set of six key E&Is were identified, and are described in this section. In addition, given the importance of the business performance measurement system (PMS) to alignment, as highlighted in earlier studies, an approach to the review of a focal firm's PMS has been further developed.

Purpose

The purpose of this section is to identify gaps in the level of practice at the focal firm that could be either enabling or inhibiting the management achieving the desired level of alignment.

The main outputs from this stage are:

- an overview of the firm's performance along the six major groupings of E&Is;
- a review of the current PMS.

The feedback includes both quantitative and qualitative data collected from all the interviewees.

Rationale

The identification of possible areas for improvement in any of the E&Is complements the other aspects of the roadmap and helps provide a higher level of detail, which can be used to explain the alignment gaps identified by the project team.

The approach to the E&I assessment involves the use of a questionnaire to capture a quantitative measure of current practice and also a requirement by the interviewer to immediately seek explanations for unusually high or low scores.

The two data streams together provide a detailed analysis of the gaps in practice which combined with the contextual detail provide the management team with a useful way to identify specific gaps, possible root causes and the links to the different alignment gaps.

By comparison, the PMS review is structured around a series of questions related to the different management aspects of a PMS system. It provides the project team with a structured approach to reviewing the existing PMS with the goal of identifying areas for improvement.

E&Is description

The team identified six top level indices and several key criteria under each that were considered to be absolutely essential to the achievement of alignment. The six indices are listed below. Detailed criteria which comprise each of the top level indices are provided in Table 12:

1. *Organisation structures* (OS): the allocation of tasks, who reports to whom and the formal coordinating mechanisms and interaction patterns that will be followed.
2. *Internal relationship* (IR): the relational behaviours between functional departments in a firm.
3. *Customer relationship* (CR): the relational behaviours between a firm and its customers.
4. *Top management support* (TS): the extent to which top management provide time, personnel and financial resources to facilitate the activities related to supply chain and marketing management.
5. *Business performance measurement system* (PMS): the set of processes a firm uses to manage its strategy implementation, communicate its position and progress, and influence its employees' behaviours and actions.
6. *Information sharing* (IS): the quality and use of shared information in a firm.

Table 12: E&I criteria

Firm structures (OS)	Customer relationship (CR)	Business performance measurement (PMS)
SC director control spans	Goal sharing	Performance targets linked to goals
SC process ownerships	Cost sharing	Report at agreed intervals
X-functional knowledge	Profit sharing	Targets reviewed
Process-oriented firm structure	Joint problem-solving	Action taken to achieve targets
Interdepartmental activity	Joint planning	Incentive
Internal relationship (IR)	**Top management support (TS)**	**Information sharing (IS)**
X-functional team	Listen to employees	Relevant information
Mutual understanding	Participate in supply chain initiatives	Accurate information
Joint problem-solving	Provide resources	Timely information
Joint planning	Provide finance	Sufficient information
	SCM at corporate agenda	Knowledge to use information
	Aware of required SC capability	

We developed a questionnaire around these indices, and a copy of it is available in Appendix 17. A sample collection sheet to be used for recording the root cause comments is provided in Appendix 18.

The questionnaire was tested and validated with a sample of some 90+ UK based manufacturers across a range of sectors, the main ones being Fabricated Metal Products, Furniture, Food & Beverages, Machinery/Equipment and Rubber & Plastics.

Step 1. Perform E&I assessment

This involves administering a questionnaire (provided in Appendix 17) to the widest number of employees possible, as indicated in the interview plan in the scoping section of this Guide. The six E&I indices are clearly represented in the questionnaire as separate sections. A five point Likert scale has been used, and the meaning of the different scores is explained in the questionnaire. However, in general a score of 1 would represent a very low level of practice, whereas a 5 represents a high level of good practice already implemented. Two pages from the questionnaire are presented for illustration in Figure 20.

Page 1

1. Organisation Structure (OS)

OS1: Which of the following activities are under the c
[Source] [Make] [Delivery] [Sales]

1 ( ) One of these activities
2 ( ) Two of these activities
3 ( ) Three of these activities
4 ( ) Four of these activities
5 ( ) All of these activities

OS2: In your company, there are process owners for e

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

OS3: In your company, employees have cross-functi
Source, Make, Delivery and Sales

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

Page 2

OS4: In your company, partments are organised according t

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

OS5. In your company, employees are frequently involved in

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

2. Internal Relational Behaviour (IR)

IR1: Select one of the following which best describes the aver

1 ( ) No cross-functional teams
2 ( ) One ad-hoc cross-functional teams
3 ( ) A few ad-hoc cross-functional teams
4 ( ) A few long-term cross-functional teams
5 ( ) Many long-term cross-functional teams

Figure 20 Sample pages from E&I questionnaire:

In addition to the core questions relating to the E&Is, it is necessary to keep a record of some demographic information on each respondent, such as department and management level. This allows for stratification of the sample later on if deemed necessary.

In addition to collecting responses to the questionnaire, there is a separate sheet that can be used to collect respondents' comments for either very high or very low scores. Figure 13 provides you with a sample of a completed sheet for one firm.

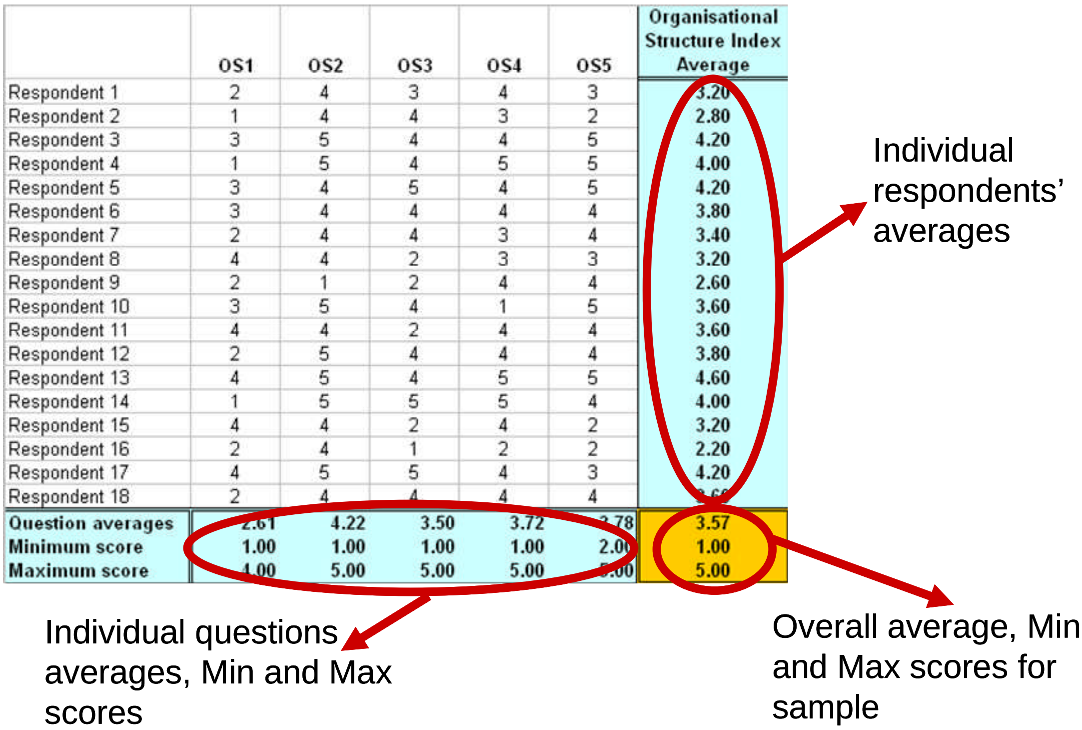
Step 1: Administer the E&I questionnaire (provided in Appendix 17) to the widest number of employees possible (minimum 15), taking care to note respondents' explanations for the extreme high and low scores on the comment sheet (given in Appendix 18).

Table 13. Explanations for extreme scores on questionnaire

Enabler and inhibitor	Comments	Who
Firm structure	There is not enough cross-functional activity to improve the order fulfilment process	JJ
	The supply chain director has no power to influence the factories in some countries	CJ
Internal relations	Relationship between marketing and supply chain departments has always been problematic	MJ
Top management Support	Top management has been very participative in meetings concerning supply chain and marketing initiatives	DT
	Top management seldom provides adequate resources and finances to the proposed supply chain projects	CM

Step 2: Analyse questionnaire data

Once the questionnaires have been completed the data can either be processed manually or entered into an Excel spreadsheet to calculate the average, maximum and minimum scores for each index. For each questionnaire the average is calculated for each index by summing the responses to each question in the section and then dividing by the number of questions in that section. The maximum and minimum are the highest and lowest scores respectively for all the questions in the section. This is done at the individual respondent level and then aggregated up to the entire sample. Figure 21 demonstrates what the database would look like and the appropriate calculations.



	OS1	OS2	OS3	OS4	OS5	Organisational Structure Index Average
Respondent 1	2	4	3	4	3	3.20
Respondent 2	1	4	4	3	2	2.80
Respondent 3	3	5	4	4	5	4.20
Respondent 4	1	5	4	5	5	4.00
Respondent 5	3	4	5	4	5	4.20
Respondent 6	3	4	4	4	4	3.80
Respondent 7	2	4	4	3	4	3.40
Respondent 8	4	4	2	3	3	3.20
Respondent 9	2	1	2	4	4	2.60
Respondent 10	3	5	4	1	5	3.60
Respondent 11	4	4	2	4	4	3.60
Respondent 12	2	5	4	4	4	3.80
Respondent 13	4	5	4	5	5	4.60
Respondent 14	1	5	5	5	4	4.00
Respondent 15	4	4	2	4	2	3.20
Respondent 16	2	4	1	2	2	2.20
Respondent 17	4	5	5	4	3	4.20
Respondent 18	2	4	4	4	4	[illegible]
Question averages	2.61	4.22	3.50	3.72	[illegible]	3.57
Minimum score	1.00	1.00	1.00	1.00	2.00	1.00
Maximum score	4.00	5.00	5.00	5.00	5.00	5.00

Figure 21: Sample of Excel database for respondent data

If there appears to be a lot of divergence in the responses, then it would be interesting to see if it is related to the respondents' positions in the firm.

A similar analysis is repeated at the individual question level across the entire sample, to allow for the identification of areas for improvement at a level lower than the high level index.

Step 2: Analyse the responses to give maximum, minimum and average scores for each individual question and aggregate this up for each index. Create plots like those shown in Figure 22 and Figure 23 to illustrate both the perceived level of practice and the divergence of employees' perceptions.

An example of one firm's feedback

The quantitative feedback provided to the focal firm at this juncture demonstrates the multi-level analysis that is possible. At the highest level, a summary of the six E&I indices for all the respondents is produced as a simple box plot which illustrates the average and also the highest and lowest scores. This approach was selected as it illustrates the divergence or convergence of opinion of the managers interviewed.

Figure illustrates the type of feedback available for the top level E&I indices, where 1 corresponds to a low level of good practice and 5 corresponds to a firm that has already implemented the majority of the identified enabling practices.

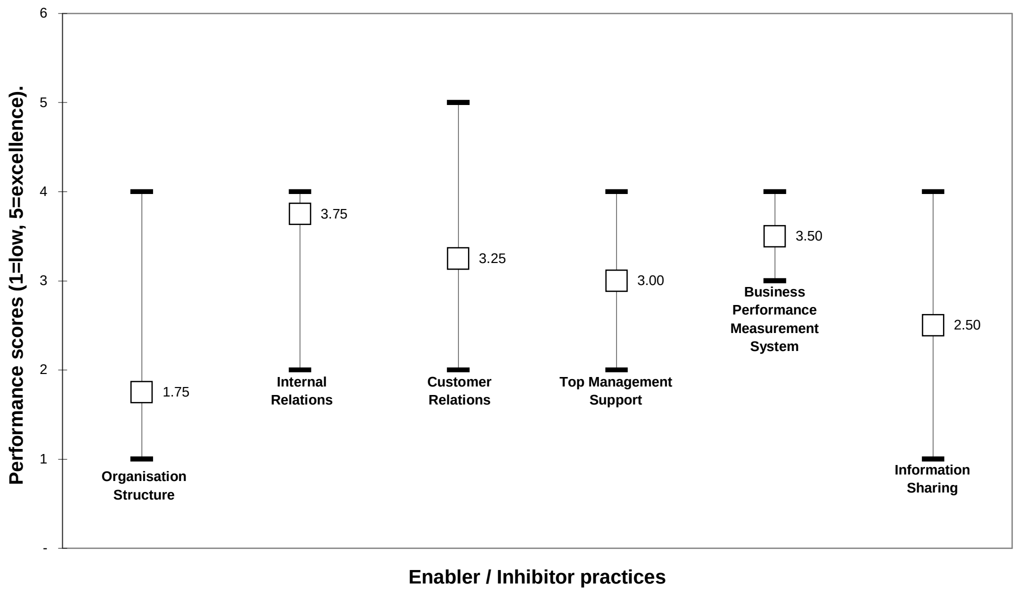


Figure 22: Enabler/inhibitor top level results for a firm

In addition, the design of the questionnaire allows the team to drill down from the top index to a lower level comprised of the individual criteria that make up the individual indices. Figure 23 provides an example of the feedback possible for one firm in the survey for the *Organisational Structure* index. Similar graphs should be produced for each of the six indices which are invaluable in helping the team identify the underlying drivers which explain the top level performance.

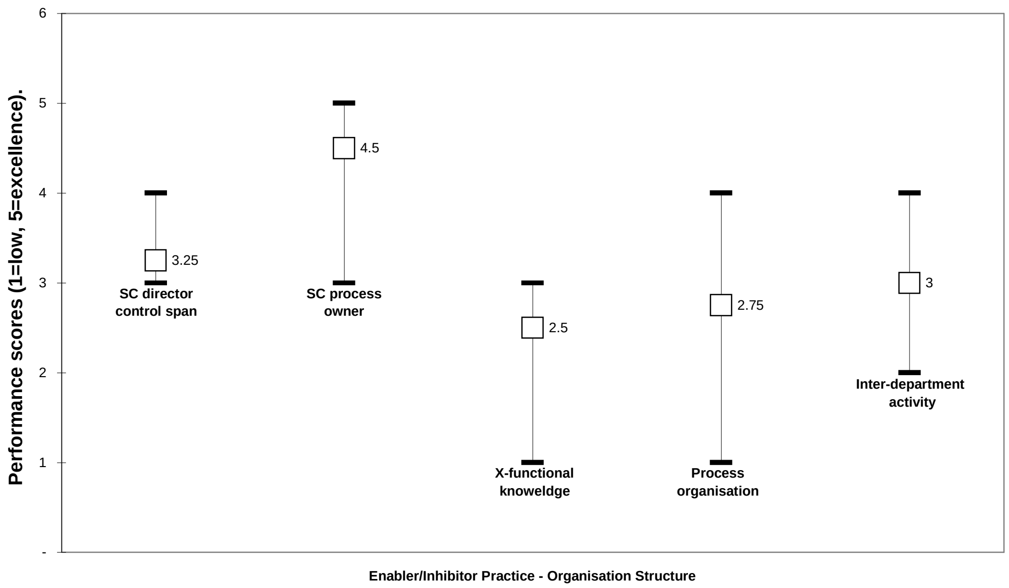


Figure 23: Enabler/Inhibitor firm structure detailed results for a firm

Step 3: Consolidate questionnaire results to explain alignment gaps

Finally, it is important to consolidate the two data streams into a single feedback document linking the E&I areas, the scores from the questionnaire and possible root causes which provide input into the discussion around initiatives for the improvement of alignment in that firm. Figure 24 provides one example of the consolidated feedback for the first three E&I indices for a particular firm.

Step 3: Consolidate the questionnaire data and comments into a single feedback document (as shown in Figure) which contributes to explaining alignment gaps.

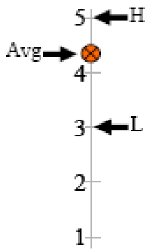
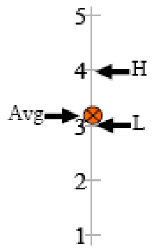
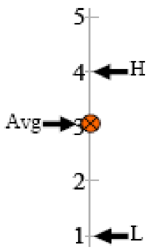
Enabler and Inhibitor	High – Low - Avg	Strategy gap	Customer value gap	Demand Fulfilment-Creation gap	Supply gap	NPI gap	SC process gap
Organisation structure		*Supply chain director has no influence on factories in some countries* *Top mgmt seldom provides adequate resources and finances to the proposed supply chain projects*		*Low cross-functional activity* *Supply chain director has no influence on factories in some countries*	*Supply chain director has no influence on factories in some countries* *Top mgmt seldom provides adequate resources and finances to the proposed supply chain projects*	*Low cross-functional activity*	*Supply chain director has no influence on factories in some countries* *Top mgmt seldom provides adequate resources and finances to the proposed supply chain projects*
Internal Relationship		*Top mgmt seldom provides adequate resources and finances to the proposed supply chain projects*	*Relationship between Mktg and SC depts has always been problematic*	*Supply chain director has no influence on factories in some countries* *Relationship between Mktg and SC depts has always been problematic*	*Top mgmt seldom provides adequate resources and finances to the proposed supply chain projects*	*Low cross-functional activity*	*Low cross-functional activity* *Supply chain director has no influence on factories in some countries* *Top mgmt seldom provides adequate resources and finances to the proposed supply chain projects*
Customer relationship			*Relationship between Mktg and SC depts has always been problematic*				

Figure 24: E&I consolidation of alignment gaps

The output at the end of this step is a consolidated overview of your firm's performance along the different E&Is. This provides a rich source of information on areas for improvement which is a key input into the feedback session with the top team.

Potential future uses of the E&I questionnaire described in the preceding steps is that, as the Cranfield database grows, it would be possible to benchmark your firm's performance against the database at Cranfield.

Step 4: Review business performance measurement system

Before launching into the actual details of how to conduct the PMS review it is necessary to take some time to describe the type of approach on which this is based. PMS is a core part of any strategy translation process. It drives decisions, behaviours and actions that lead to the alignment or misalignment of operations with strategy (as illustrated in Figure 25). This approach incorporates four key elements:

1. *Metrics:* translating the strategic objectives into correlating metrics.
2. *Targets:* translating strategic objectives into targets and specifying levels of target setting within the business and externally.
3. *Reporting:* the manner in which progress is reviewed, including the regularity of reporting, ensuring that the content of discussions is relevant to the strategic objectives.
4. *Relevance:* this deals with the unit of analysis, stakeholder involvement, such as to ensure that the whole system (metrics, targets and reporting), individuals, functions and processes are aligned with strategic objectives.

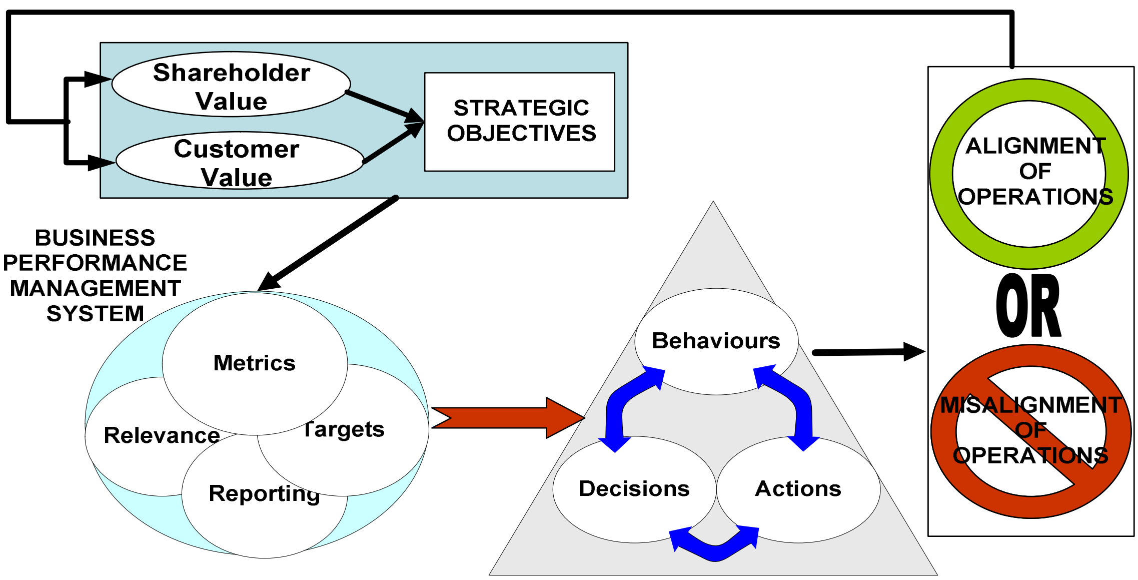


Figure 25: PMS model (Source: After Achimugu, 2005)

Additionally, these elements need to be managed from three aspects which are:

1. *Design aspect:* which deals with the initial setting of an element within the system;
2. *Life cycle aspect:* which addresses the need to review the whole system or elements of the system to ensure a consistent match with strategy and highlight areas that need changing;
3. *Implementation aspect:* this relates to factors associated with implementing and managing the whole system.

Consistent management of these elements (see Figure 26) ensures success in driving desired behaviours, decisions and actions that lead to supply chain alignment.

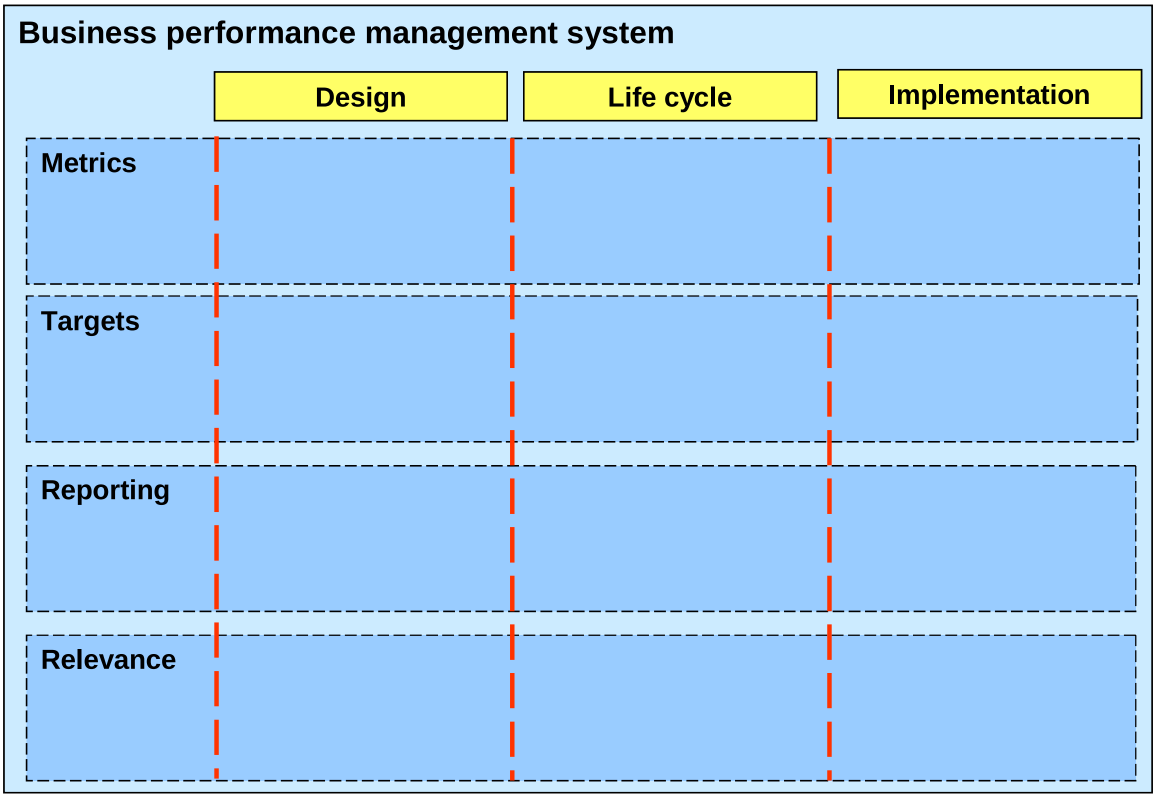


Figure 26: Management of key elements of a PMS (Source: After Achimugu, 2005)

Step 4: Interview all employees within the scope of the study (as described in the scoping section) regarding each aspect of all four PMS elements (questions are provided in Table 14. Analyse interviews to identify strengths and weaknesses in the PMS that may enable or inhibit alignment.

Table 14. Checklist of PMS steps:

Elements	Design	Lifecycle	Implementation
Metrics	Is there a clear link between the different metrics and the strategic objectives? Is there a need to have different metrics for the different customer segments?	Is the PMS reviewed at appropriate intervals so as to reflect any changes in strategic direction or customer needs?	Where applicable are metrics shared? If a metric is shared across different groups, is there a single data input point, and an agreed calculation approach?
Targets	Have targets been set for each metric? Have appropriate target setting levels been determined and agreed on with the team? Do the targets correlate to the strategic objectives? Do the targets correlate to the customer needs?	Are targets still relevant or do they need to be updated?	Are appropriate levels for targets set? Are the incentive systems in line with and supportive of the desired behaviours?
Reporting	Are all the key stakeholders/team members involved in the review of the performance against the targets? Are all the stakeholder/team members aware of the reporting process and able to review the report? Have the stakeholders/team members agreed on triggers for action?	Have the key stakeholders/ team members changed? Is the regularity of reporting still efficient?	Have the stakeholders/team members agreed on the reporting process? Does the reporting process include the following elements: time, venue, agenda, chair, frequency, and meeting rules? When action is needed are the problem-solving teams cross-functional in nature? When action plans are generated is there a process in place for follow-up? What are the mechanisms needed to support the collection and exchange of information internally and with key customers and suppliers?
Relevance	Are all impacted stakeholders (for the different customer segment) involved in the PMS process? Is the process matched to different customer segments? Is the metric and its unit of measure relevant to the stakeholders? Do the metrics aid decision making?	Is the composition of the stakeholder group reviewed regularly? Has a periodic review been planned for the PMS to check on its validity?	Do the stakeholders understand the relevance of the metrics, targets and reporting system? Do the stakeholders understand the impact of their metrics and targets on areas outside their control?

Case illustrations of PMS reviews

Metrics and targets

Metrics and targets have to be related to strategic objectives. It is important that all stakeholders have had an input into *what* should be measured and *how* it should be measured. This includes agreement on where data for a particular metric is collected, how calculated and finally how the results are shared with relevant stakeholders. Target setting is an important element of the PMS as it specifies priorities and creates incentives that, if relevant, will drive individuals within the system to achieve strategic goals. Target setting can help overcome the barriers associated with fragmented areas of ownership as it is a key factor to inducing behavioural change. Target setting can be performed at different levels dependent on the metric and the rationale for the metric. These levels range from *Individual, Process, Functional, Strategic/organisational.* It is also possible where the relationship permits to have shared metrics and targets with key partners in the external supply chain that will promote the move towards alignment.

Case Study 6

At **FoodCo**, strategy is deployed functionally with each functional head setting their own targets with little idea of other functional targets.

Production's targets were relevant to cost saving objectives whilst new product development (NPD) had innovation objectives. These were conflicting objectives as NPD pilots often led to a lot of material waste in production; customer shortage as production material was sometimes used; and reduced productivity as pilot volumes did not count as production volumes. This also meant that production was often non-cooperative when it came to pilots as bonuses were related to cost-savings.

Since the customer valued innovation above cost, the firm needed both functions to work together to create cost-effective innovative products that can be easily produced as well as meet customers' expectations for innovation without compromising existing customer service.

A review of the metrics and targets to drive the right behaviour was needed to address the disconnects identified.

Reporting and relevance

For reporting to have a positive impact on enabling alignment the information has to be generated in a timely manner such that actions can be taken in time. All relevant stakeholders need to be involved in the reporting process so that accurate and meaningful information is shared and each stakeholder can take actions to improve that process.

Relevance is important as it identifies the unit of analysis. The unit of analysis is the most important aspect of relevance as it tests if a PMS can drive the appropriate behaviours, decisions and actions. The customer values identified from the customer review help to identify the differentiated response that may be required of a supply chain. Each differentiated response also needs a differentiated performance review to ensure that the actions, decisions and behaviours are relevant to those segments.

Case Study 7

FMCGCo is a good example of the need to differentiate some aspects of PMS to align with distinct customer segments. Their customer review indicated two different sets of customer values implying two different types of response with different suites of metrics to support the different requirements.

Segment A is indicative of a *lean* response:

- Cost – productivity, efficiency, utilisation, waste
- Delivery reliability – frequency, OTIF, VMI conformance
- Product quality

Segment B is indicative of an *agile* response:

- Flexibility – shorter raw material lead-time v. high stocks in
- Velocity – shorter factory lead-time v. high stocks in finished goods
- Innovation – new product development lead-time

They also identified some shared metrics across the segments that included:

- Total supply chain cost
- Speed of new product introduction (from end of development to availability)
- Order lead-time
- Supply chain profitability

In addition to defining the metrics, the teams involved agreed on the reporting system to collect and share the results in a timely manner that supports the required speed of decision making needed for the different customer segments.

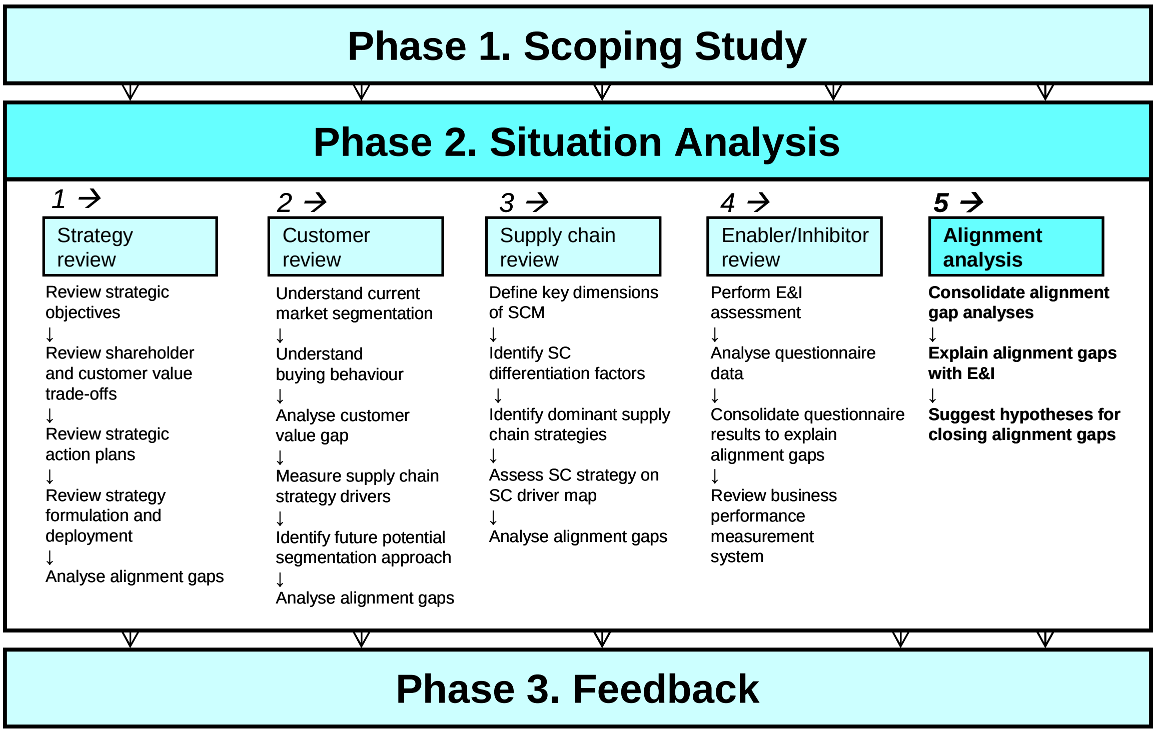
Implications

The identification of a firm's current performance across the identified E&Is is an extremely important element of the roadmap to alignment. The approach outlined in this section allows for the quantitative identification of areas of low practice or conversely pockets of excellence. This combined with the qualitative information and possible root causes provides an additional level of detail which enhances the management teams' understanding of how to take the firm to the next level of performance.

The importance of a PMS that supports the organisational objectives in the area of alignment has also been emphasised in this section. A key lesson learnt is that 'one size fits all' approaches to performance measurement do not support differences between the customer segments. Choosing the right metrics and targets at the customer segment level will drive the desired behaviours, encouraging the different stakeholders in that process to work together to improve performance and ultimately move the organisation towards increased alignment.

At this point it is important to emphasise that the relative importance of the different E&Is may evolve over time as the firm moves through different organisational challenges. Because of the need to respond to changes in the marketplace and also to support strategic shifts, it is recommended that the review of the firm's performance against the E&Is not be treated as a one-off exercise but should be used frequently to continuously align the various aspects of the operation in response to changes in the competitive environment.

Alignment Analyses



Purpose/outcome

Alignment analysis is conducted by relating facts from the situation analysis to conclude alignment gaps and to suggest potential hypotheses for closing the gaps.

Rationale

There is a need to have a holistic view of all identified alignment gaps, especially when these are presented to the senior management team. Some of the identified alignment gaps are related to one another, and some of them are explainable by the identified enabler and inhibitors. It is also essential to present facts for senior management touse in making decisions. Therefore, a consolidated overview of the identified alignment gaps provides opportunity to identify their root causes as well as suggestions or hypotheses for improvement.

Step 1: Consolidate alignment gaps

The first step is to collect all identified alignment gaps from the situation analysis, guided by Figure 28. All alignment gaps must be supported by evidence collected during the situation analysis. It is important to collect all identified alignment gaps from the various reviews and present them as an alignment gap overview to facilitate validation, explanation and ranking of the alignment gaps. Figure 28 shows an example of alignment gaps.

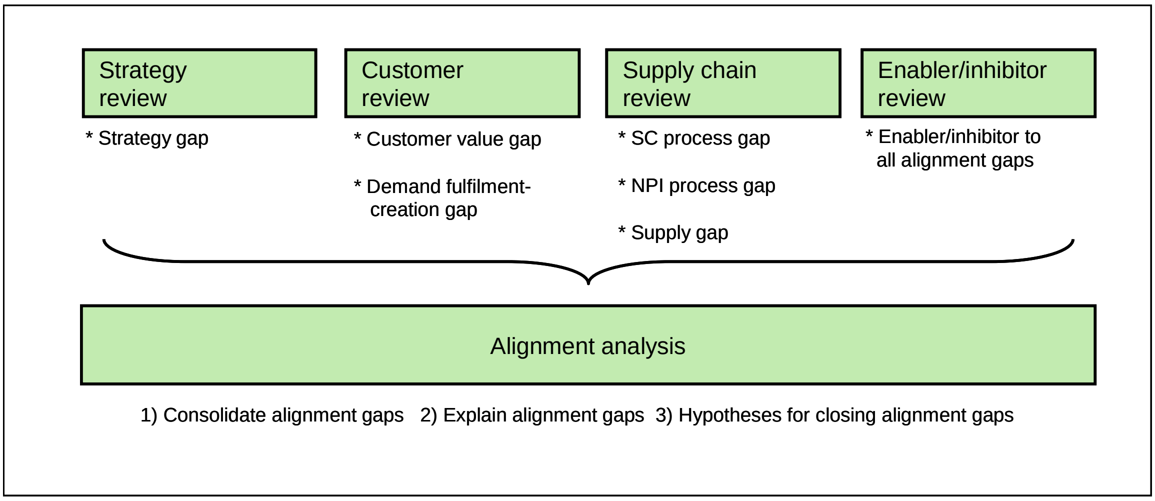


Figure 27: Key sources of alignment gaps

Step 1: Map the identified alignment gaps as shown in Figure 28 (the alignment gap template is provided in Appendix 19).

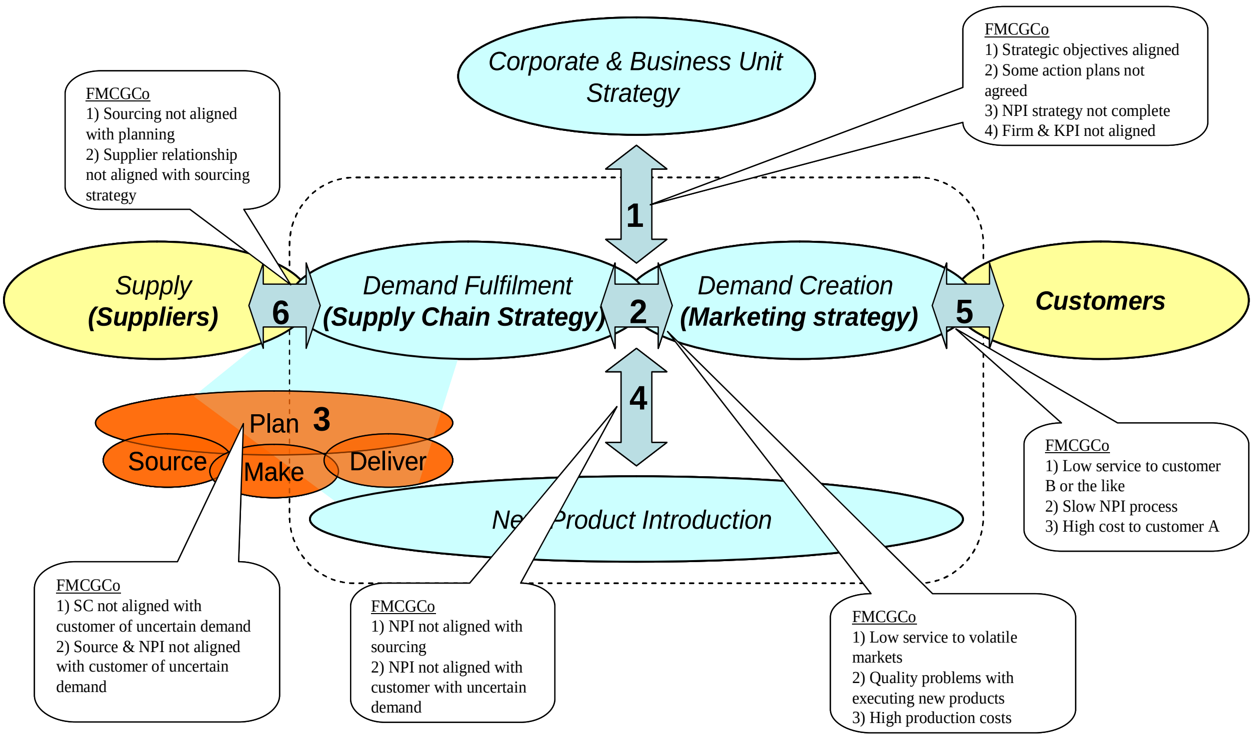


Figure 28: shows an example of alignment gaps

Step 2: Explain alignment gaps with identified enablers and inhibitors

The next step is to attribute the root causes and inhibitors that were identified through the four reviews (or possibly from other sources), to the identified gaps. This is not an easy task but the project team should be able to identify some obvious enablers and inhibitors based on the extensive interviews. This list can be extended during the feedback activity.

Step 2: Using the results of the four reviews (especially the enabler and inhibitor review) and possibly other sources, explain the identified alignment gaps. Appendix 20 provides a template for this step.

Table 15: Alignment gaps and their inhibitors for the FMCGCo

Alignment gap	Identified alignment gaps	Key enablers and inhibitors to alignment
Strategy gap	1) Strategic objectives aligned 2) Some action plans not agreed 3) NPI strategy not complete 4) Firm and KPI not aligned	1) Low top management support 2) SC director has lacks influencing power 3) No ownership of NPI process 4) Not enough SC experts to execute action plans
Customer value gap	1) Low service to customer B or the like 2) Slow NPI process 3) High cost to customer A	1) No different KPIs for different customers 2) Production planning common for all customers 3) Inaccurate demand information 4) Poor cooperation between SC and marketing people on customer planning
Demand fulfilment-creation gap	1) Low service to volatile markets 2) Quality problems with executing new products 3) High production costs	1) Low planning capability 2) Low demand visibility 3) SC director has no control over factories
Supply chain process gap	1) SC not aligned with customer of uncertain demand 2) Source and NPI not aligned with customer of uncertain demand	1) Poor supplier quality 2) Inaccurate demand information 3) different factories take care of some of the SC process, low cooperation 4) Sourcing and NPI are carried out by other centralised firm units, process interfaces unclear 5) Top management provides limited support to SCM initiatives

New product introduction process gap	1) NPI not aligned with sourcing 2) NPI not aligned with customer with uncertain demand	1) NPI and sourcing have conflicting KPIs but there is no mechanism to coordinate 2) Standard NPI procedures take too long to respond to urgent customer RFQs
Supply gap	1) Sourcing not aligned with planning 2) Supplier relationship not aligned with sourcing strategy	1) Conflicting KPIs between sourcing (cost) and planning (reliability and lead-time) 2) Every factory has its own suppliers and orders separately 3) SC director has no control over some of the sourcing decisions

Step 3: Suggest hypotheses for closing alignment gaps

Finally, the project team should suggest hypotheses for closing the identified alignment gaps as illustrated in 16. This is an essential step in preparation for feedback to the senior management. It produces a list of hypotheses for improvement specifically for closing the identified alignment gaps.

Step 3: Outline hypotheses for improvement to close the identified alignment gaps. Some of the hypotheses may be ways to avoid or reduce identified inhibitors. You can also suggest improvement to the current corporate, operations and supply chain strategies; or further detailed investigations of a particular aspect. Appendix 21 provides a template for this step.

Table 16: Alignment gaps and their hypotheses for improvement

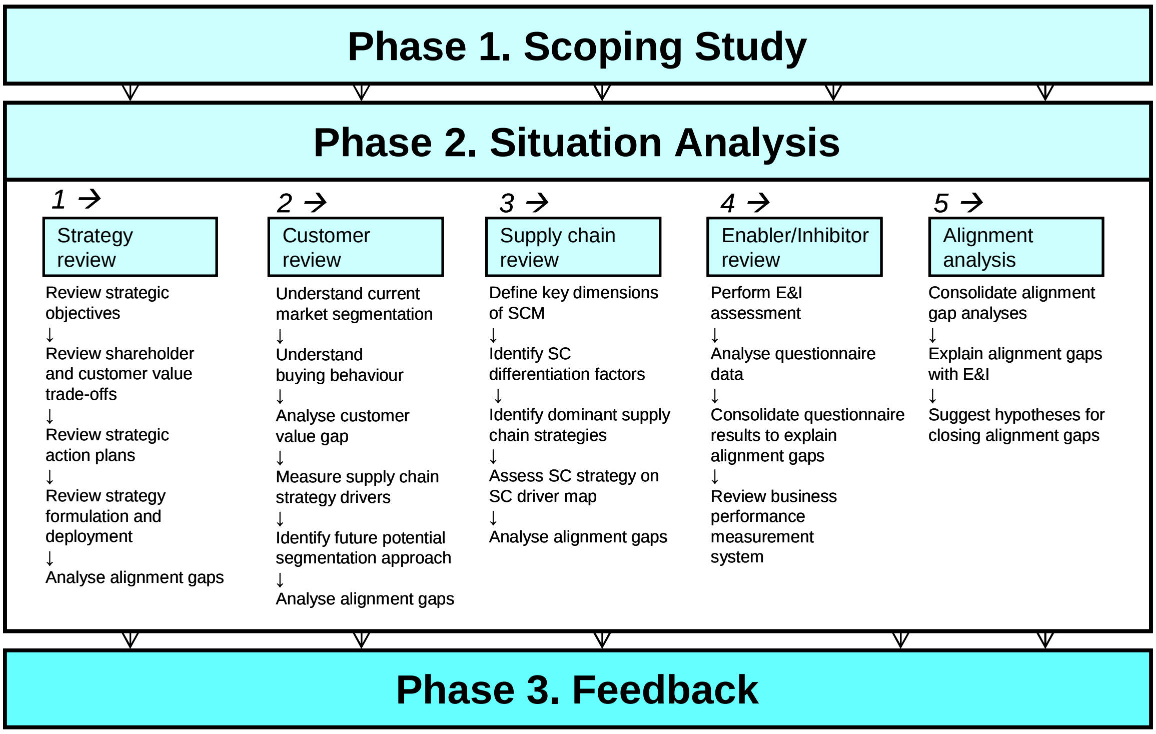
Alignment gap	Identified alignment gaps	Hypotheses for closing alignment gaps
Strategy gap	1) Strategic objectives aligned 2) Some action plans not agreed 3) NPI strategy not complete 4) Firm and KPI not aligned	1) Rationalise and prioritise current action plans – step approach 2) Increase power for SC director over factory and sourcing 3) Include NPI to S&OP planning process 4) Revise KPIs and KPI sharing
Customer value gap	1) Low service to customer B or the like 2) Slow NPI process 3) High cost to customer A	1) Engage key account for customer B to understand true customer demands 2) Design a high-speed NPI process 3) Consolidate some factories to lower cost

Demand fulfilment-creation gap	1) Low service to volatile markets 2) Quality problems with executing new products 3) High production costs	1) Design agile supply chain process for volatile markets 2) Consider 6-sigma programme 3) Consolidate some factories to lower cost
Supply chain process gap	1) SC not aligned with customer of uncertain demand 2) Source and NPI not aligned with customer of uncertain demand	1) Design agile supply chain process for volatile markets 2) Design a high-speed NPI process
New product introduction process gap	1) NPI not aligned with sourcing 2) NPI not aligned with customer with uncertain demand	1) Include NPI to S&OP planning process 2) Design a high-speed NPI process
Supply gap	1) Sourcing not aligned with planning 2) Supplier relationship not aligned with sourcing strategy	1) Include NPI to S&OP planning process 2) Redefine supplier relationship model

Implications

The essential principle guiding the above three steps is that they are carried based on facts and interview data. Various alignment gaps are attributed by root causes and possible inhibitors, and potential hypotheses are suggested. These will certainly provide a strong basis for the following stage – feedback.

Feedback



Purpose/outcome

To feed back the situation analysis findings to the top team to enable findings to be validated and improvement projects to close alignment gaps to be identified and defined.

Rationale

In order that you can make the leap from situation analysis to projects which will improve your firm's performance, you first need the involvement and commitment of your senior management team. The feedback phase ensures that senior managers are given the opportunity to get involved in the selection and definition of improvement projects.

Step 1: Determine feedback requirements and constraints

The findings from situation analysis should be fed back to the top team. Initially the project team must determine the requirements and constraints for the feedback activity, which is best done collectively. This allows the various hypotheses for closing alignment gaps to be discussed by senior managers and evaluated from the perspective of all the various functions. It is likely that the duration and resource required for the feedback phase will be in the region of:

> *Duration:* 2 or 3 weeks preparation and 1 or 2 days for a feedback meeting
> *Resource:* Project team (two people) to prepare and preferably the full senior management team to attend feedback meeting

It may be that at the time of feedback there are constraints on senior managers' time that make it difficult to arrange the feedback meeting. Though these should be taken into account, wherever possible it should be stressed that the situation analysis feedback is the culmination of substantial investigation and analysis and presents a significant opportunity for senior managers to improve the operation of the firm.

Step 2: Decide appropriate feedback mechanism and make arrangements

The ideal feedback mechanism is a two day workshop where each section of situation analysis can be fed back to the entire top team to ensure that they can develop a good understanding of the findings. This will allow them to properly evaluate the hypotheses for closing the alignment gaps and identify the most beneficial for implementation. The workshop would aim to develop outline definitions of those selected improvement projects.

Generally the first day of the workshop covers feedback of situation analysis and the identification of a list of potential improvement projects. The second day involves the selection and definition of improvement projects, and ideally resource allocation. In practice it can be advantageous to separate these days by two to four weeks to allow the senior management team to consider the potential improvement projects, their benefits and how they maybe implemented. This is especially important when the project team considers the projects to be in some way controversial.

If a two day workshop of the top team is not possible then maybe it can be squeezed into one day - although from our experience this leaves insufficient time for evaluating and selecting hypotheses for improvement.

Failing this, a feedback meeting attended by selected senior managers including the following individuals could be arranged:

- Director with overall accountability for the BU in which the study will take place, e.g. MD.
- Director(s) responsible for demand fulfilment, e.g. Supply Chain Director, Logistics Director, Operations Director.
- Director(s) responsible for demand creation, e.g. Marketing Director, Trade Marketing Director, Brand Marketing Director.

The main drawback of this approach is whatever hypotheses for improvement are selected the involvement and therefore buy-in of those absent senior managers will be lacking and could thus undermine the success of implementation.

Step 3: Prepare feedback material

An overview of the feedback material to be prepared and expected outputs for the top team is provided in Table 17. It assumes that you have two days for feedback. Should it be less you may need to pick out the highlights from the various sections that support your hypotheses for closing the alignment gaps. Naturally the alignment gap analysis section is crucial to draw together the findings from all four reviews. To maintain a high level of interest and ensure a good understanding here are some guidelines:

- ***Vary the format of the presentation***. Two main options are available:
  - Powerpoint presentations using ample colour schematics (as shown in the review sections of this guide) to illustrate the findings.
  - ‘Brown papers’. This is simply a large (wall size) brown or white paper with hard copy slides stuck on in an appropriate pattern. Brown papers have the advantage that they mobilise attendees and allow you to visibly capture their feedback.
- ***Encourage discussion***. Especially around your findings and hypotheses to close the gaps it is important to throw out some questions to provoke discussion, for example ‘is this consistent with your experience?’ This maintains involvement, ensures they are validating your findings and promotes generation of new ideas for improvement.
- ***Punctuate the feedback with activities***. These may be general discussions, or one of the following. The important thing is you are encouraging your senior managers to think about the issues you have uncovered.
  - Break out into groups to discuss different aspects of a particular issue and report back.
  - Complete an exercise, for instance rank the hypotheses for improvement individually using Post-its indicating first, second and third choice.
- ***Presentation of situation analysis findings should include:***
  - Some theory to ensure understanding.
  - Evidence to support identified alignment gaps.

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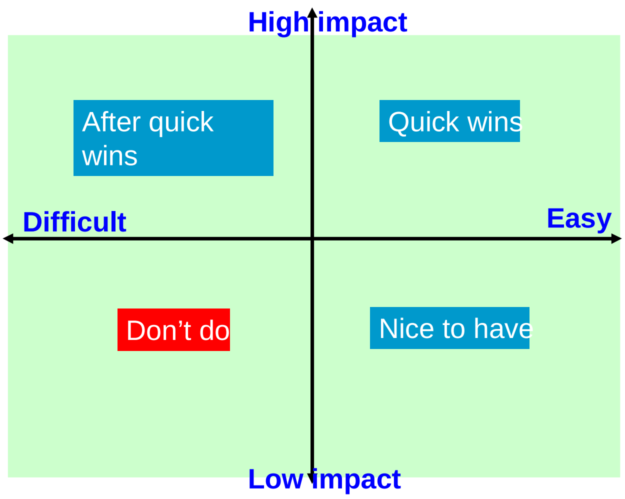

Figure 29: Impact ease matrix

Table 17: Overview of feedback material for a 2 day workshop

Section	Content	Intended output for senior management
Day 1		
Setting the scene	Introduce the following concepts (see introduction): • customer and shareholder alignment • alignment gaps • the roadmap Provide overview of situation analysis: • Scope illustrated by a schematic (see scoping study) • Numbers of interviews conducted (matrix firm versus function)	Understand fundamental concepts Appreciate scope and rigour of situation analysis
Situation analysis findings	Present findings from following reviews: • Strategy review • Customer review • Supply chain review • Enablers and inhibitors review • Alignment gap analysis Senior managers rank hypothesis for closing gaps	Agreement on findings of situation analysis Ranked hypotheses for closing alignment gaps
Day 2		
Recap improvement projects emerging from hypotheses	Go through outlines of hypotheses for closing gaps	Senior management appreciate full range of potential projects
Improvement project prioritisation and selection	Plot projects on impact ease matrix (as shown in Figure 30) Select and prioritise projects to close alignment gaps	Prioritised list of improvement projects
Improvement project definition and resource allocation	Develop project charter for selected projects (as shown in Appendix 23)	Improvement projects defined and resource allocated

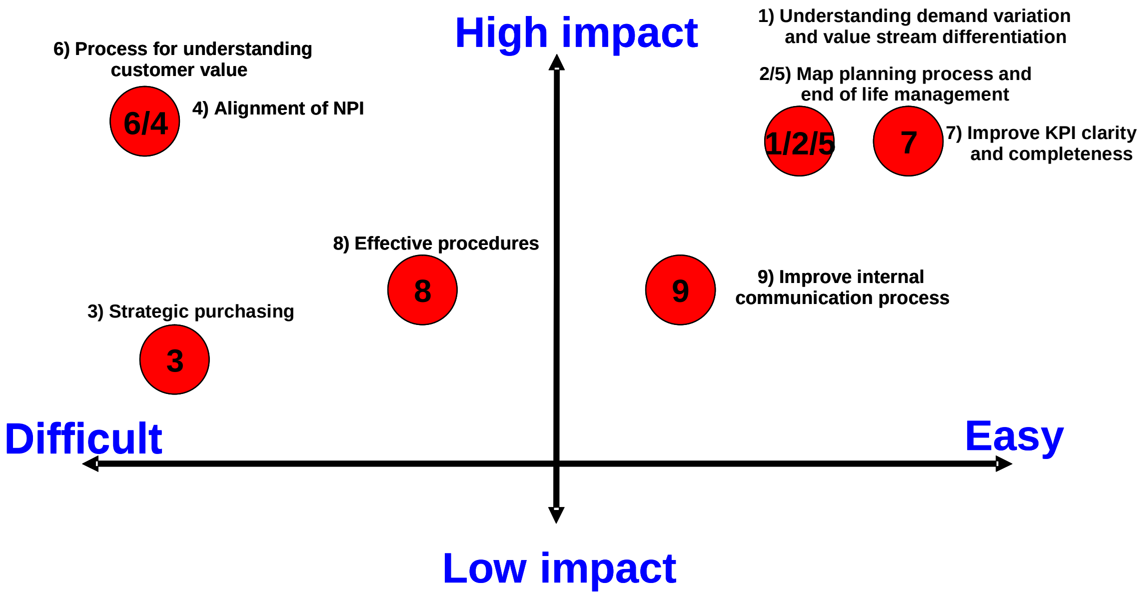

Figure 30: Example of a completed impact ease matrix

Step 4: Provide preview

It is important to provide all the senior managers who will attend the feedback event with a one to one preview of the main findings from situation analysis. This process serves a number of objectives:

- To validate high-level findings, although be aware of possible functional bias from individual senior managers;
- To provide some knowledge of findings such that they are in a position to make decisions on their basis at the feedback activity;
- To avoid surprises and possible controversy by making them aware of findings in advance.

Step 5: Execute feedback activity

Whether you have selected the two day workshop with all senior managers or a one day meeting with selected managers it is preferable to hold the meeting off-site where there will be no interruptions – an 'away day'. Throughout the activity the following ground rules are suggested:

- ***Mobile phones*** switched off and no interruptions allowed;
- ***Establish a log of 'parked issues'***. These are subjects of disagreement between senior managers;
- ***Keep to the timetable***. While you want to encourage discussion, you still want to present all your material and not bias the improvement projects for the sections you presented first.

A crucial activity for the top team is to rank the ideas for closing the alignment gaps. This will dictate which improvement projects are prioritised for implementation. The senior managers review all the hypotheses and individually rank them using Post-its indicating first, second and third choice. Ranking is on the basis of the impact on the business of closing the alignment gap. The ease with which these projects could be implemented is jointly evaluated such that they can be plotted as the impact-ease matrix as shown in Figure 30. Normally projects falling into the ‘Quick Wins’ quadrant (as shown in Appendix 22) are prioritised – high impact on closing alignment gaps while being relatively easy to implement. Selected projects are defined and resourced allocated using a Project Charter similar to that shown in Appendix 23.

Implications

Feedback is the culmination of the in-depth study situation analysis. From the project team’s perspective, it is a window of opportunity to present the findings and through involvement gain support from the top team to implement a number of projects to close identified alignment gaps. From the senior management team’s perspective feedback is an intensive activity where they are provided with a significant body of findings on their business and invited to make involved choices regarding which improvements to pursue. This enlightening event is rarely predictable and requires the project team to be flexible and opportunist particularly in terms of the timing. Quite often the top team need time between ranking the hypotheses and making final selection for implementation. What matters is that the senior managers commit to the implementation of projects that will close the most significant alignment gaps existing in your firm.

Conclusion

The roadmap presented in this guide is part of a longer journey of supply chain transformation as shown in Figure 31. Experience has shown that - to undertake a radical supply chain redesign programme - a minimum of two years is needed before sustainable benefits are delivered. Such programmes typically include four stages, as illustrated.

The first stage, which is covered by the roadmap presented in this Guide, involves a situation analysis to understand where the current alignment gaps exist. This results in a number of 'hypotheses for improvement' which can be consolidated into a conceptual design. The second stage is to validate the assumptions underpinning conceptual design, to form a detailed blueprint of the future strategic model and underpinning concepts. The third stage involves deploying an appropriate infrastructure which includes aspects such as process design, organisational design, performance measurement and information systems. The fourth stage is about embedding the infrastructure changes and delivering the benefits of the transformation

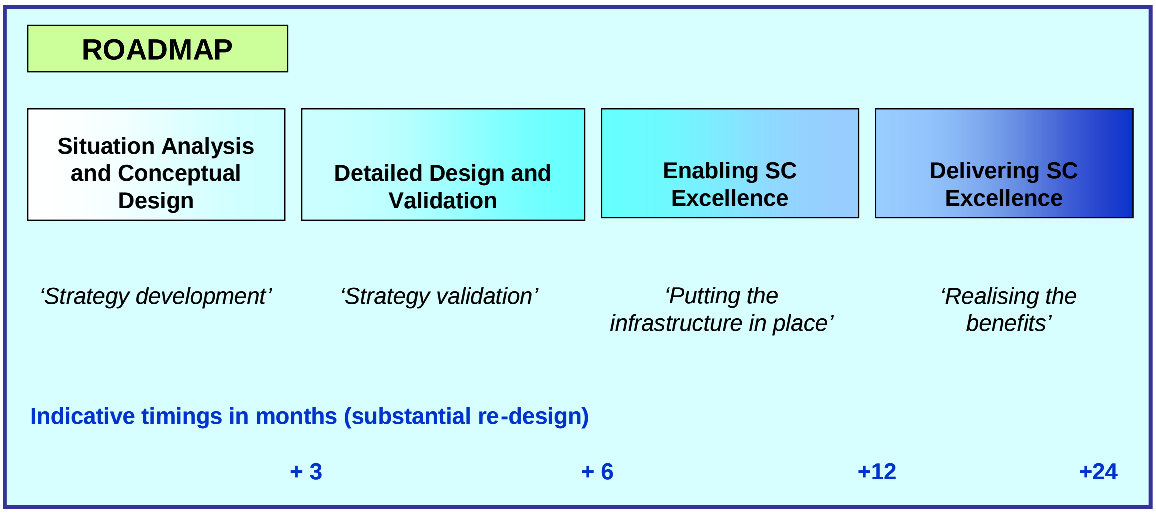

Figure 31: Positioning the roadmap for situation analysis and conceptual design

In many respects stages 2 - 4 are common to all change management programmes and it is for this reason that the focus for this Management Guide has been on stage 1 (situation analysis and conceptual design) and provides some links into stage 2 (validation and detailed design).

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Acronyms

BPMS: business performance measurement system
BU: business unit
CFT: customer facing team
CR: customer relationship
E&I: enablers and inhibitors
EDLP: everyday low price
ERP: enterprise requirements planning
FMCG: fast moving consumer goods
IR: internal relationship
IS: information sharing
IT: information technology
JIT: just in time
KAM: key account management
KPI: key performance indicator
MRP: material requirements planning
MTO: make to order
MTS: make to stock
NPD: new product development
NPI: new product introduction
OEM: original equipment manufacturer
OS: organization structure
OTIF: on time, in full
PLC: product life cycle
PMS: business performance management system
RFQ: request for quotation
S&OP: sales and operations planning
SC: supply chain
SCM: supply chain management
TS: top management support
VMI: vendor managed inventory

Glossary

Alignment gap arises where there is an incompatibility between strategies or processes which results in the loss of either customer or shareholder value.

Business performance measurement system (PMS) the set of processes a firm uses to manage its strategy implementation, communicate its position and progress, and influence its employees' behaviours and actions. It encompasses performance metrics, targets, reporting and review processes and systems.

Cost-sharing refers to sharing of cost increases possibly due to material, quality and delivery issues.

Customer value is the customer-perceived benefits gained from a product/service compared to the cost of purchase.

Customer alignment is the process of making supply chain strategy (plan, source, make and deliver) compatible with marketing strategy. This involves alignment of strategy both within and between partners in a supply chain, and delivers customer value.

Customer relationship (CR) refers to the relational behaviours between a firm and its customers.

Cross-functional team refers to the teams which consist of members from different functional departments working together to achieve some common goals.

Customisation level is the extent to which the product is unique for a particular customer. It can be measured by the proportion of the product components which are unique to the customer.

Delivery reliability is a measure of the firm's ability to meet the agreed terms of delivery with respect to the product type, the quantity ordered and the due date. Normally measured by the on time in full (OTIF) measure which is the proportion of orders which are both delivered on time and in full.

Demand profile comprises the various dimensions of demand placed on your firm which drive (or determine) important aspects of supply chain strategy. These include demand variability, predictability, variety and volume.

Demand variability measures the changes in demand (orders or call off quantities and due dates) over a sequence of time buckets. It can be measured using the coefficient of variation which is the ratio of the standard deviation to the average demand.

Demand uncertainty measures the changes in demand (forecast and actual order quantities and due dates) for a given time bucket as it moves in time and approaches the delivery due date. It is indicated by sales forecast accuracy levels.

Deliver process refers to customer order processing and outbound logistics.

Differentiated supply chain strategy is where different aspects of supply chain strategy are tailored to meet specific customer needs as described by the supply chain strategy drivers (demand and service profile).

Focal firm is an individual firm within a network of supply relationships on which we happen to be focusing. Each focal firm has its own internal processes which must coordinate with those of its supply and customer partners.

Goal-sharing involves common goals where all parties are contributing to the achievement of the goals.

Information sharing (IS) refers to the quality and use of shared information in a firm.

Internal relationship (IR) refers to the relational behaviours among functional departments in a firm.

Joint-planning here involves the planning of new product introduction, promotion, and capacity, and replenishment between your firm and customers.

Key performance indicators (KPIs) are the main performance measures in each area of the business that are needed to run the firm.

Make process refers to the manufacturing and testing of products and services in your firm.

Marketing strategy: Piercy (2002) defines marketing strategy in terms of starting with the customer:
- being best at doing the things that matter most to customers;
- building shareholder value by achieving superior customer value;
- finding new & better ways of achieving the above.

New product introduction process (NPI) is normally initiated by marketing or sales and maybe for a new variant or entirely new product, although for the purpose of this guide it is constrained to new variants. The process spans both marketing and supply chain management as it includes the specification of the product variant and the tailoring of supply chain processes to provide it.

Order fulfilment lead-time is the time between the customer ordering the product and receiving it.

Organisation structure (OS) refers to the allocation of task, who reports to whom and the formal coordinating mechanisms and interactions patterns that will be followed.

Plan process refers to the long- and medium-term planning of demand, supply chain resources, sourcing, production, inventory, and delivery.

Postponement is the delay, until customer orders are received, of the final part of the transformation processes through which the number of different items (stock keeping units) proliferates, and for which only a short time period is available. The postponed transformation processes maybe manufacturing, assembly, configuration, packaging, or labelling processes.

Profit sharing refers to the sharing of one firm's profits with another to ensure an equal share of profit among supply chain partners.

Sales process refers to activities that generate customer orders.

Service profile comprises the various dimensions of service required by your customers which drive (or determine) important aspects of supply chain strategy. They include order fulfilment lead-time, delivery reliability and customisation level.

Shareholder alignment is the process of making business strategy compatible with functional strategies and the business processes used to deliver them. This involves alignment of strategies and processes both within and between partners in a supply chain, and delivers shareholder value.

Shareholder value is the financial value created for shareholders by firms in which they invest. Shareholders usually value revenue, profit, market growth, operating cost reduction, fixed assets and working capital efficiency. Thus, the two widely used measures of shareholder value are market value-added and economic value-added.

Source process refers to the management of suppliers and procurement of goods and services.

Supply chain refers to the series of activities (plan, source, make, deliver) and management of supplier and customer relationships from the raw material to end-customers to ensure the efficient delivery of products and services.

Supply chain strategy (demand fulfilment) is a set of principles, processes and action plans used to manage the supply chain, which are guided by supply chain objectives and encompass the four supply chain processes plan, source, make and deliver.

Supply chain strategy drivers are the various dimensions of demand placed on your firm (demand profile), and the service required by your customers (service profile). Drivers determine the key aspects of supply chain strategy.

Top team refers to the management team above the operations or supply chain directors. Usually it includes the chief executive officer, managing directors and chief financial officer.

Top management support (TS) refers to the extent to which the top team provides time, personnel and financial resources to facilitate the activities related to supply chain and marketing management.

Variety measures the number of finished products that are offered to customers. In retailing, this is measured by the number of stock keeping units (SKUs).

Volume measures the quantity ordered or called off for a given time bucket.

Appendices

List of appendix

App.	Road map (activity)	Document title
1	Scoping study	Context and scoping interview guide
2	Scoping study	Project document template
3	Scoping study	Interview schedule for situation analysis
4	Strategy review	Review strategic objectives
5	Strategy review	Review shareholder and customer value trade-offs
6	Strategy review	Review strategic action plans
7	Strategy review	Review strategy formulation and deployment process
8	Customer review	Understand current Market segmentation approach
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21	Alignment analysis	Hypotheses for closing alignment gaps
22	Feedback	Impact ease matrix
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Appendix I: Context and scoping interview guide

Company structure

Points to address	Documents
Organisation structure • part of a parent group, • operating company organisation structure, • local and remote functions, • senior management team	**Organisation charts, facility layout**
Size of company: • number of employees - direct and indirect, • turnover – group and operating facility	
Financial structure: • operating facility - profit centre, cost centre, investment centre • functions – profit centre, cost centre, investment centre	

Organisational/ Business Strategy

Points to address	Documents
Operating company's mission, long-term vision, company values	**Supporting documents**
Business Strategy at group, operating Company and functional level. Assess: • strategic objectives (relative to scope) • drivers behind these mandates • how has the business chosen to compete One possible analysis is to categorise strategy against Treacy and Wiersema (1993) business strategies or value disciplines: • Operational Excellence –combine price, reliability, and hassle free service to deliver lowest cost • Product Leadership – continue to innovate year after year • Customer intimacy – cultivate relationships	**Strategy documents**
Values and pressures exerted by: • Shareholders	

• Customers **Trade-off**	
Strategy deployment mechanism	
Industry structure: • Sectors and where they operate • Growing, stable or declining • Sectors operating company supply to	
Competitors: • Major competitors • SWOT (Strengths Weaknesses Opportunities and Threats) for operating company and 2 key competitors	**SWOT Analysis**
Market shares of focal company and competitors	
Conduct a Porter 5 force analysis to understand the competitive position of the company: • **Supplier Power:** how easy it is for suppliers to drive up prices • **Buyer Power:** how easy it is for buyers to drive prices down. • **Competitive Rivalry:** number and capability of your competitors • **Threat of Substitution:** ability of your customers to find a different way of doing what you do • **Threat of New Entry:** ability of people to enter your market.	
Operating company's marketing environment analysis: • Political • Economic • Social/cultural • Demographic • Legal • Technological	**Marketing analysis**

Customer Base

Points to address	Documents
Key customers: • Revenue accounted for • Relationship dependence – %age of customer's spend, versus %age of operating company revenue	
Segmentation of customer base: • criteria used • understanding customer value by segment	
Customer base • Tiers – operating company occupies more than one tier of OEM's supplier base • Profit margins – how vary • Customer service (order leadtime, delivery reliability, customisation level, delivery frequency) – how vary • Demand profile (variability, variety, volume) how vary	
Key customers • Main issues in serving them • Initiatives launched to combat issues and level of success • ***Select two customers for the study representing two polar extremes in terms of supply chain strategy drivers***	

Demand Fulfilment

Points to address	Documents
Top level map of plan, source, make, deliver • Physical flow – inbound logistics, manufacturing processes, outbound logistics • Information flow – order processing, planning, manufacturing scheduling, procurement, • Cash flow	
Supply chain strategies: • Scope and content • More than one?	**Strategy document**

Suppliers

Points to address	Documents
Key suppliers: • Spend accounted for • Relationship dependence – %age of operating company's spend, versus %age of supplier's revenue	
Supplier base • Tiers – does this vary across supplier base • Customer service provided (order leadtime, delivery reliability, customisation level, delivery frequency) – how vary • Demand profile subjected to(variability, variety, volume) - how vary	
Key suppliers • Main issues with their supply • Initiatives launched to combat issues and level of success • ***Select two suppliers for the study representing two polar extremes in terms of supply chain strategy drivers***	

Demand Creation

Points to address	Documents
Organisation of sales and marketing: • Account management	
How interface with supply chain management: • Who, how and why? • Mechanisms – cross functional teams, ICT, facility layout • Formal and informal interaction • Strategic and operational communication	

Appendix 2: Project document template

Project Document	Document number	
	Revision number	
	Date issued	
	Company	
	Project name	

Revision history

No	Change description	Justification	Date	By

Background

- Background of current shareholder and customer value delivery, competitive conditions, corporate strategies, operating company strategies, supply chain strategy alignment and supply chain challenges.
- Introduction to the project.

Objectives

The objectives of the project

Project Focus

Identify the scope of the project including selected business segments, two customers,
.

	Customer no. 1	Customer no. 2
Segment		
Sub-Segment		
1st tier Customer Focus		
2nd tier Customer Focus		
Product		
Supplier		
Logistics Provider		

Approach

Situation Analysis
The situation analysis will last approximately __ weeks and will involve interviews (1-2 hours/person) with key personnel (see interview schedule):

- Internally (Sales/Marketing and Supply Chain)
- Customers (1^{st} & 2^{nd} tier)
- Suppliers
- Logistics provider

Feedback
A feedback (workshop) possibly involving the full time participation of the senior management team. This will involve a combination of theory, feedback about the current situation, gap analysis and project planning.

Project Timings

Project plan and schedule.

Risk assessment

Issue	Actions

Deliverables

- Situation analysis & validation
- Feedback documentation

Review Mechanisms

Four review mechanisms are suggested:

1. Weekly review/ as required
2. Monthly review / as requires
3. Preparation and delivery for project workshops and feedback sessions
4. Review with consultant (if needed)

APPENDICES

Work Breakdown Schedule: Situation Analysis

Operating company			
	Name/position	**Interview purpose**	**Location date time**
Strategy review			
Customer review			
Supply chain review			
Enabler/ inhibitor review			
BPMS review			
Alignment analysis			

Suppliers			
	Name/position	**Interview purpose**	**Location date time**
Supply chain review			
Supply chain review			

Customer no. 1			
		Interview purpose	**Location date time**
Customer review and supply chain drivers	1st tier customer		
	2nd tier customer (if needed)		
	Logistics provider		

Customer no. 2			
		Interview purpose	**Location date time**
Customer review and supply chain drivers	1st tier customer		
	2nd tier customer (if needed)		
	Logistics provider		

Organisation and Resources

Company	**Name**	**Function in project**	**Cell phone**	**Phone**	**Fax**	**E-mail**

Appendix 3: Interview schedule for situation analysis

	Interviews			
Interviewees	**3.1 Strategy review**	**3.2 Customer review**	**3.3 Supply chain review**	**3.4 E&I review**
Suppliers				
Sales, operations or delivery managers			Sourcing strategy and process of your company	E&I questionnaire BPMS interview
Your company				
Top and senior managers	Understand corporate and operation strategy			E&I questionnaire BPMS interview
Sales manager Marketing manager		Understand current market segmentation approach Understand buying behaviour	Supply chain strategy drivers for your company	E&I questionnaire BPMS interview
Supply chain manager		Understand current market segmentation approach Understand buying behaviour	Supply chain strategy drivers for your company Supply chain strategy	E&I questionnaire BPMS interview
Account or logistics manager			Deliver strategy and process of your company	E&I questionnaire BPMS interview
Planning manager			Planning strategy and process	E&I questionnaire BPMS interview
Purchasing manager			Sourcing strategy and process of your company	E&I questionnaire BPMS interview
Manufacturing manager			Make strategy and process	E&I questionnaire BPMS interview
Product development manager			New variant introduction strategy and process	E&I questionnaire BPMS interview

Logistics Provider				
Account or logistics manager			Deliver strategy and process for your company	E&I questionnaire BPMS interview
Customers				
Purchasing and logistics manager		Customer value questionnaire	Supply chain strategy drivers for your company Deliver strategy and process for your company	E&I questionnaire BPMS interview

Appendix 4: Review strategic objectives

Based on the current strategy documentations and interviews, outline the following strategic objectives

Objectives	Corporate	Business unit	Operating company
Finance Revenue Profit (IBT) Cost saving ROI Cash flow Other			
Market Share Product Competition Other			
Customer Satisfaction Retention Other			
Organisation Integration Competence Other			

Appendix 5: Review shareholder and customer value trade-offs

Based on the agreed strategies, assess the trade-off decisions below (highlight the chosen trade-off decisions) according to the interview data collectively.

Trade-off	Corporate	Business unit	Operating company
Shareholder value (SHV) and customer value (CV)	1) SHV only 2) SHV > CV 3) Balance SHV & CV 4) CV > SHV 5) CV only	1) SHV only 2) SHV > CV 3) Balance SHV & CV 4) CV > SHV 5) CV only	1) SHV only 2) SHV > CV 3) Balance SHV & CV 4) CV > SHV 5) CV only
Sales growth (SG) and cost reduction (CR)	1) SG only 2) SG > CR 3) Balance SG & CR 4) CR > SG 5) CR only	1) SG only 2) SG > CR 3) Balance SG & CR 4) CR > SG 5) CR only	1) SG only 2) SG > CR 3) Balance SG & CR 4) CR > SG 5) CR only

Appendix 6: Review strategic action plans

Map out the agreed key strategic action plans. It is important to define the status of the action plans; action plans not yet agreed upon (N), planned for implementation (P), implementation in progress (I), or completed (C).

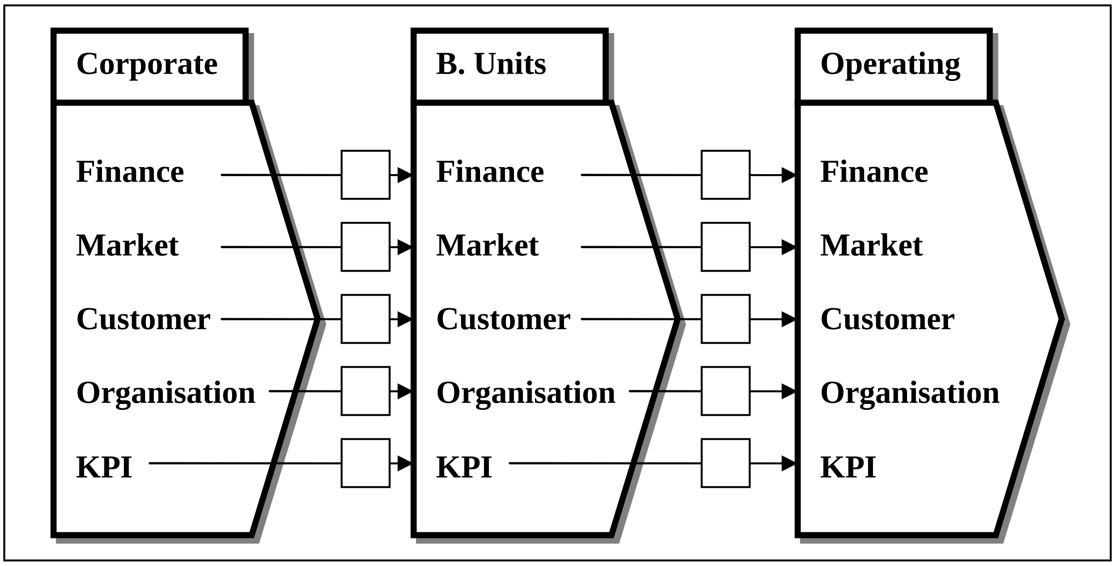
Aspects	Corporate	Business unit	Operating company
Finance			
Market/Competition			
Customer			
Organisation			
Performance (KPI)			
New product introduction (NPI) strategy			
Marketing strategy			
Supply chain strategy			

Appendix 7: Review strategy formulation and deployment process

With the strategy formulation and deployment process mapped out, interview different executives to find out the following:

- Is there a formal documentation on strategic formulation and deployment process?
- Has every involved executive understood the strategic formulation and deployment process?
- Has there been coordination across corporate, business units and operating companies to ensure each other objectives are understood and agreed?
- Has there been detail investigation and debates within the corporate, business units and operating companies to come out with a set of strategic action plans?
- Has there been approval and resource allocation to implement agreed set of strategic action plans?

Based on a scale of 1 to 5 (a ‘5’ means ‘yes’ to the all the above questions), scores the strategy formulation and deployment processes into the following figure.



Appendix 8: Understand current market segmentation approach

Current Market Segmentation Approach

- How do you segment your market now? – conventional approaches (geography, distribution channels, product, demographics like socioeconomic group, lifestyle) or other?
- Do you use more than one approach?
- What strategic and operational aspects of the business are driven by market segmentation?
- What market knowledge do you gather relating to your segmentation approach?

Appendix 9: Understand buying behaviour relevant to supply chain strategy

Understanding buying behaviour

For the two selected customers and products what are the ***predominant*** ways that buying behaviour (in terms of demand profile and service profile) varies - does it vary with the following:

- Marketing activity - promotions introduce new strains of demand variability new variant/product introduction will affect demand for other variants
- Product life cycle stage – service required and demand profile change with the stage in the life cycle as illustrated below
- Context of purchase tends to effect service required and demand profile as illustrated later

While conducting this interview it is a good opportunity to explore how buying behaviour varies with other customers and product item. You might want to expand your discussion to the product family to which the selected end item belongs

Appendix 10: Customer value questionnaire

Name	
Role	
Function	

Objective
This questionnaire has been designed to indicate the perceived customer value delivered to [the customer] and to rate [your company's] performance against a [key competitor]. It is envisaged that this will vary depending upon the stage in the product life cycle therefore the product launch and the mature stage of the life cycle are assessed.

Instructions for Completion
For the [product being studied] complete the two attached tables (note: for 'demand variety' refer to the product group).
The tables refer to customer needs during two different stages of the products life cycle: during product launch; and during the maturity or steady stage.
For the two product life cycle stages the following should be completed:

1. The level [the customer] requires for each aspect of their needs
2. The relative importance to [the customer] of meeting the different aspects of their needs. Rate the relative importance of [the customer's] needs by apportioning 100 points between the factors, e.g. if all are of equal importance then 10 points would be awarded to each
3. [Your company's] performance at meeting [the customer's] needs
4. [The competitors] performance at meeting [the customer's] needs

During new product launch

Customer needs		[the customer]			
		What is the level [the customer] requires? – circle the level	Relative importance (distribute 100 points)	[Your company] performance (1 to 5) 1 – poor 5 - good	[Competitor] performance (1 to 5) 1 – poor 5 - good
Demand	Demand unpredictability	High – Med. – Low - Both			
	Variety	High – Med. – Low - Both			
	Volume (end item)	High – Med. – Low - Both			
Service	Order lead-time	Short – Med. – Long - Both			
	Delivery reliability	High – Med. – Low - Both			
	Delivery frequency	High – Med. – Low - Both			
	Product customisation	High – Med. – Low - Both			
Product	Features	High – Med. – Low - Both			
	Quality	High – Med. – Low - Both			
	Innovation	High – Med. – Low - Both			
Price (1 is low and 5 is high)		High – Med. – Low - Both	**n/a**		

During product maturity (or steady) stage

Customer needs		**[the customer]**			
		What is the level [the customer] requires? – circle the level	Relative importance (distribute 100 points)	[Your company] performance (1 to 5) 1 – poor 5 - good	[Competitor] performance (1 to 5) 1 – poor 5 - good
Demand	Demand unpredictability	High – Med. – Low - Both			
	Variety	High – Med. – Low - Both			
	Volume (end item)	High – Med. – Low - Both			
Service	Order Lead time	Short – Med. – Long - Both			
	Delivery reliability	High – Med. – Low - Both			
	Delivery frequency	High – Med. – Low - Both			
	Product customisation	High – Med. – Low - Both			
Product	Features	High – Med. – Low - Both			
	Quality	High – Med. – Low - Both			
	Innovation	High – Med. – Low - Both			
Price (1 is low & 5 is high)		High – Med. – Low - Both	**n/a**		

Appendix 11: Measure supply chain strategy drivers

Supply chain strategy drivers

For the two selected products identified in the scoping study.

Demand profile

Points to address	**Documents or Data**
General Demand profile: • Annual demand by product • Annual demand by customer	
Product variety • How many different finished products are there in each product family? • What is the highest, lowest and average number of finished products in a product family	**DEMAND DATA (order quantity and due date for one year for the 2 selected products**
Demand volume • What is the annual volume demand for the two products? • What is the highest, lowest and average number of finished products in a product family	**As above**
Demand predictability and variability • How unpredictable is demand for the two products and how does this compare with the extreme high and low experienced by the company? – this maybe indicated by sales forecast accuracy. • How variable is demand for the two products and how does this compare with the extreme high and low and average by the company? • Plot demand (order/call off quantities and date) for each product to provide a visual representation of variability. • Calculate the coefficient of variability (average divided by standard deviation) for each of the two products • What causes variability in demand for the two products?	**As above**

Customer Service Profile

Points to address	Documents or Data
Order lead-time • What order fulfilment lead-time is required for the two products? • What is the achieved order fulfilment lead-time over the past year? • Does the required order fulfilment lead-time vary for the two selected customers and products? • Do you consider the order fulfilment lead-time you are currently achieving for the two products to be short enough or responsive enough? • What are the key issues that prevent order fulfilment lead-time being reduced? • What is the shortest, longest and average order lead-times required by your customers?	**Order lead-time data required for 2 products – due date, despatch date, order date**
Delivery reliability • What's the required delivery reliability on time in full (OTIF) required for the two products? • What is the achieved delivery reliability over the past year? • What are the root causes of late deliveries and their incidence? • Does required delivery reliability vary for different customers and products? If so what are the highest, lowest and average levels of required delivery reliability?	**Delivery reliability data required– due date, despatch date, due quantity, despatch quantity**
Customisation level • What proportion of the two products are unique to the customer (measured in terms of proportion of unique components? • What are the highest, lowest and average levels of product customisation required by the company?	**Bill of Materials**
Delivery frequency • What's the required delivery frequency for the two products? • What are the highest, lowest and average levels of delivery frequency required from the company	

Appendix 12: Key dimensions of current supply chain processes

In my company	
Supply chain management (SCM) means	
SCM scope	
SCM objective	
SCM strategies	

Appendix 13: Supply chain differentiation factors

Planning process	Strategy	Differentiation factors	Applicable for products/customers
Strategy 1			
Strategy 2			
Strategy 3			

Sourcing process	Strategy	Differentiation factors	Applicable for materials/suppliers
Strategy 1			
Strategy 2			
Strategy 3			

Make process	Strategy	Differentiation factors	Applicable for products/customers
Strategy 1			
Strategy 2			
Strategy 3			

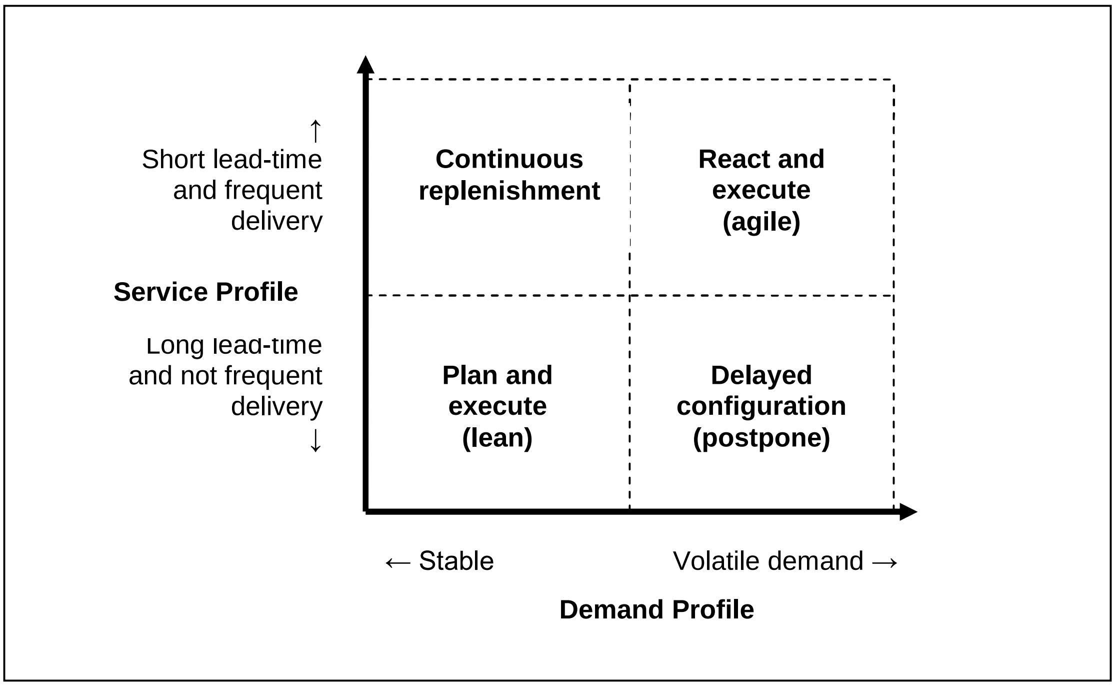
Deliver process	**Strategy**	**Differentiation factors**	**Applicable for products/customers**
Strategy 1			
Strategy 2			
Strategy 3			

NPD process	**Strategy**	**Differentiation factors**	**Applicable for products/customers**
Strategy 1			
Strategy 2			
Strategy 3			

Appendix 14: Current dominant supply chain strategy

Supply chain process	**Current Secondary Strategy (<50%)**	**Current Dominant Strategy (>50%)**	**Suitable demand, service, and product profiles for dominant strategies**
Plan			
Source			
Make			
Deliver			
NPD			

Appendix 15: Assessing supply chain strategy



Appendix 16: Analyse supply chain alignment

Alignment areas	**Alignment evaluations**
Between the supply chain strategy and customer needs	
Among the supply chain core processes (plan, source, make, deliver and new product development)	

Appendix 17: Enabler and inhibitor questionnaire

1. Organisation Structure (OS)

OS1: Which of the following activities are under the control of the operations/ supply chain director (or equivalent) in your company? [Plan] [Source] [Make] [Delivery] [Sales]

1 ( ) One of these activities
2 ( ) Two of these activities
3 ( ) Three of these activities
4 ( ) Four of these activities
5 ( ) All of these activities

OS2: In your company, there are process owners for each of the following core business processes - Plan, Source, Make, Delivery and Sales

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

OS3: In your company, employees have cross-functional knowledge and skills required to manage the core business process including Plan, Source, Make, Delivery and Sales

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

OS4: In your company, departments are organised according to the following core business processes - Plan, Source, Make, Delivery and Sales

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

OS5. In your company, employees are frequently involved in task forces or interdepartmental activities.

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

2. Internal Relational Behaviour (IR)

<u>IR1:</u> Select one of the following which best describes the average employee involvement in cross-functional activities in your company.

1 ( ) No cross-functional teams
2 ( ) One ad-hoc cross-functional teams
3 ( ) A few ad-hoc cross-functional teams
4 ( ) A few long-term cross-functional teams
5 ( ) Many long-term cross-functional teams

<u>IR2:</u> Select one of the following which best describes the current level of mutual understanding in your company.

1 ( ) No functional department knows each other’s business processes well
2 ( ) A few functional departments know each other’s business processes well
3 ( ) Most functional departments know each other’s business processes well
4 ( ) All functional departments know each other’s business processes well
5 ( ) All functional departments and subsidiaries know each other’s business processes well

<u>IR3:</u> Select one of the following which best describes the current joint problem-solving practices in your company?

1 ( ) No joint problem-solving between functional departments
2 ( ) A few functional departments are willing to solve problems together
3 ( ) Most functional departments are willing to solve problems together
4 ( ) All functional departments are willing to solve problems together
5 ( ) All functional departments and subsidiaries are willing to solve problems together

<u>IR4:</u> Select one of the following which best describes the current joint-planning practices in your company?

1 ( ) No joint planning between functional departments
2 ( ) A few functional departments are willing to plan together
3 ( ) Most functional departments are willing to plan together
4 ( ) All functional departments willing to plan together
5 ( ) All functional departments and subsidiaries are willing to plan together

3. Customer Relational Behaviour (CR)

CR1: Select one of the followings which best describes the current goal-sharing practices between your company and your customers.

1 ( ) No goal-sharing with customers
2 ( ) Share goals with a few key customers
3 ( ) Share goals with most key customers
4 ( ) Share goals with all key customers
5 ( ) Share goals with all customers

CR2: Select one of the followings which best describes the current cost-sharing practices between your company and your customers.

1 ( ) No cost-sharing with customers
2 ( ) Share costs with a few key customers
3 ( ) Share costs with most key customers
4 ( ) Share costs with all key customers
5 ( ) Share costs with all customers

CR3: Select one of the followings which best describes current profit-sharing practices between your company and your customers.

1 ( ) No profit-sharing with customers
2 ( ) Share profits with a few key customers
3 ( ) Share profits with most key customers
4 ( ) Share profits with all key customers
5 ( ) Share profits with all customers

CR4: Select one of the followings which best describes current joint problem-solving practices between your company and your customers.

1 ( ) No joint problem-solving with customers
2 ( ) Joint problem-solving with a few key customers
3 ( ) Joint problem-solving with most key customers
4 ( ) Joint problem-solving with all key customers
5 ( ) Joint problem-solving with all customers

CR5: Select one of the followings which best describes the current joint-planning practices between your company and your customers.

1 ( ) No joint-planning with customers
2 ( ) Joint planning with a few key customers
3 ( ) Joint planning with most key customers
4 ( ) Joint planning with all key customers
5 ( ) Joint planning with all customers

4. Top management support (TS)

TS1: The top management of your company

1 ( ) Never reads reports & listens to employees regarding supply chain (SC) issues
2 ( ) Seldom reads reports & listens to employees regarding SC issues
3 ( ) Sometimes reads reports & listens to employees regarding SC issues
4 ( ) Often reads reports & listens to employees regarding SC issues

5 ( ) Always reads reports & listens to employees regarding SC issues

<u>TS2:</u> The top management of your company

1 ( ) Never participates in meetings concerning supply chain issues
2 ( ) Seldom participates in meetings concerning supply chain issues
3 ( ) Sometimes participates in meetings concerning supply chain issues
4 ( ) Often participates in meetings concerning supply chain issues
5 ( ) Always participates in meetings concerning supply chain issues

<u>TS3:</u> The top management of your company approves most of the requests for increased human resources for supply chain initiatives

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

<u>TS4:</u> The top management of your company approves most of the requests for capital investment for supply chain initiatives

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

<u>TS5:</u> The top management of your company emphasises the strategic importance of supply chain management to meeting customer needs

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

<u>TS6:</u> The top management of your company is aware of the need for supply chain capability to meeting customer needs

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

5. Information Sharing (IS)

<u>IS1:</u> The information available to the operations/supply chain department is relevant to the management of material flow

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

<u>IS2:</u> The information for the management of material flow required by the operations/supply chain department is accurate

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

<u>IS3:</u> The information for the management of material flow required by the operations/supply chain department is available in a timely manner

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

<u>IS4:</u> The information for the management of material flow required by the operations/supply chain department is sufficiently available

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

<u>IS5:</u> The operations/supply chain department has sufficient knowledge to use all available information for the management of material flow.

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

6. Business Performance Measurement Systems (PM)

PM1: The performance targets at different organisation levels are linked to the overall business objectives

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

PM2: The performance of different organisation levels is reported at agreed intervals

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

PM3: The performance of different organisation levels is reviewed against targets at agreed intervals

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

PM4: When the performance targets are not met, your company takes action to improve the performance

1 ( ) Strongly disagree
2 ( ) Disagree
3 ( ) Neither agree nor disagree
4 ( ) Agree
5 ( ) Strongly agree

PM5: Please check one of the numbers below to indicate the effect of the business performance measurement system to the employee behaviour?

← Encourage functional Sub-optimisation Encourage process optimisation across functions →

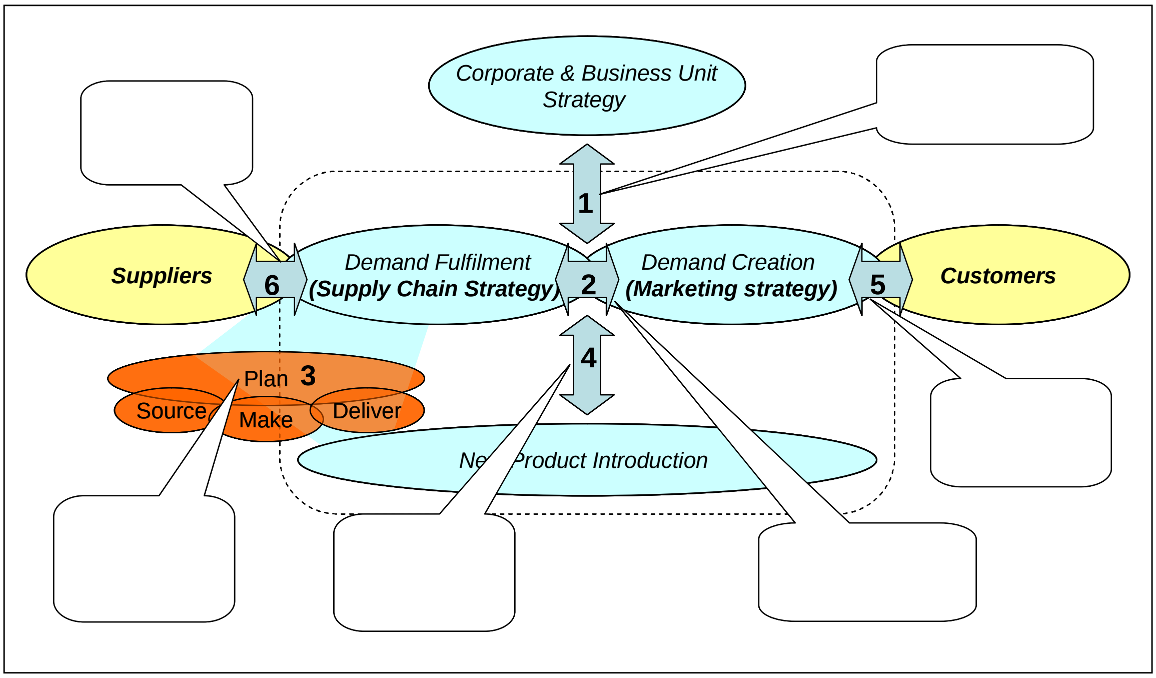
(1) (2) (3) (4) (5)

Appendix 18: Root cause comment sheets

Enabler and Inhibitor	Comments	Who
Organisation structure		
Internal Relationship		
Customer relationship		

Enabler and Inhibitor	**Comments**	**Who**
Top mgmt support		
Biz performance measurement		
Information Sharing		

Appendix 19: Consolidated alignment gaps



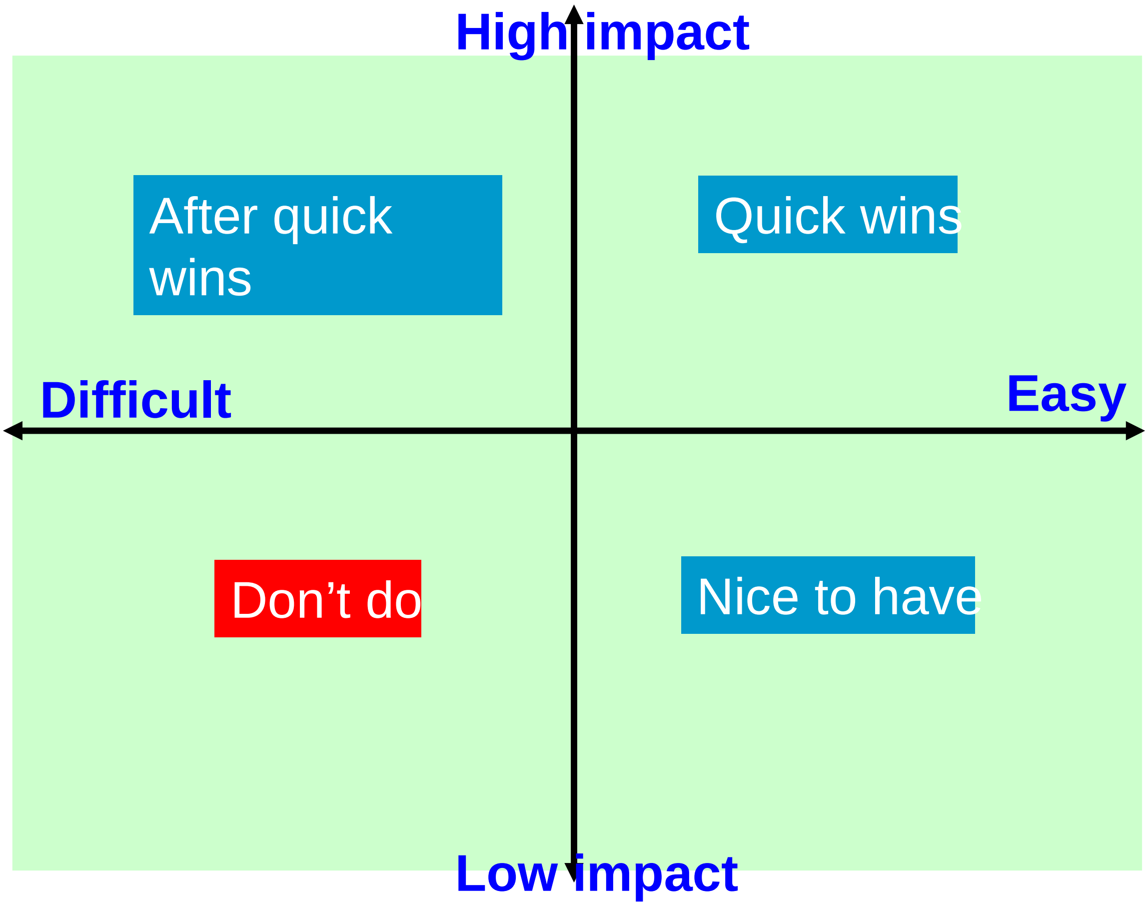
Appendix 20: Explain alignment gaps with identified E&I

Alignment gap	**Identified alignment gaps**	**Key enablers & inhibitors to alignment**
Strategy gap		
Customer value gap		
Demand fulfilment-creation gap		
Supply chain process gap		
New product introduction process gap		
Supply gap		

Appendix 21: Hypotheses for closing alignment gaps

Alignment gap	Identified alignment gaps	Hypotheses for closing alignment gaps
Strategy gap		
Customer value gap		
Demand fulfilment-creation gap		
Supply chain process gap		
New product introduction process gap		
Supply gap		

Appendix 22: Impact ease matrix



Appendix 23: Project charter

Objectives

- What are the high level objectives of this piece of work?
- Improve alignment?
- Should be measurable if possible e.g. implement x process in time y

Deliverables

- What are the tangible outcomes of the activities that will be delivered to meet the objectives?

e.g.

- A permanent, sustainable solution to x problem
- A robust PDCA process with KPI's & plans
- Standard meeting format

Key Activities

- What are the project management and content activities that need to be in place in order to achieve the objectives?

Measures / KPIs

- What indicators are required to be measured to demonstrate success/ progress?
- e.g. Milestones complete to plan, benefits achieved v plan etc.

Scope

IN
What areas will this project/initiative cover

OUT
What areas will this project/initiative not impact upon

Critical Success Factors

- What provisions have to be in place in order for the activities, objectives and deliverables to be achieved?
- e.g. Access to senior management time
- Adequate resource
- X-team exchange of information

Resource Requirements

- What is the Project duration e.g. May 20th to Dec 22nd 2002
- Project Manager & team - Part time/Full time?
- What skills are needed

Expected Benefits

Financial:

- Quantified - e.g saving of £Y from solution to X problem
- Non-quantified – e.g.Perf. improvements via KPI/PDCA focus

Non-financial:

e.g

- Process capabilities
- Continuous improvement ethic