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Airline Key Change Drivers and Business Environmental
Analysis in Southeast Asia: Strategic Planning Perspectives

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Airline Key Change Drivers and Business Environmental Analysis in the Southeast Asia: Strategic Planning Perspectives

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ABSTRACT

This thesis is involved with exploration of key changes drivers and market phenomena in the Southeast Asia and the development of new conceptual frameworks for business environmental analysis of airlines. The research is constructed under the phenomenology paradigm which adopts a coherentism approach and mainly takes airline industry's publications, statistics, and executives as units of analysis. Hermeneutic phenomenology, a single-embedded case study, concurrent triangulation mixed method, and grounded theory are all used as methodologies. Methods using document reviews, interviews, and questionnaires are applied to surface the key changes drivers, market phenomena and the perceptions of the importance of changes factors. The collected data are analysed by content analysis, thematic analysis, cognitive mapping analysis, constant comparative analysis and descriptive analysis to classify, generalise and develop into proper forms.

The research reveals that 'market', 'competition/strategy', 'regulation/policy', 'infrastructure/resource', 'cooperation', 'distribution', 'technology, and 'broad' factors are discovered as key change drivers. Their different importance levels are measured by occurrences, density, centrality, and tail occurrences as root causes of changes. The characteristics of their interrelationships are based on directional and influential dimensions. There are 16 emerged changes/market phenomena and 11 generalised conceptual frameworks and 3 newly developed frameworks for analysing the airline business environment. The quantitative findings from content analysis are evaluated by inter-coder analysis which achieves kappa coefficient = 0.87 indicating high reliability of the analysis. The qualitative findings are qualified through ten criteria assessment of research quality. The deliverables provide both theoretical and methodological contributions. The research limitations are found in some sources of collected data and findings which are caused by scarce data availability and three types of biases. The recommendations for future research into financial performance, changes' leading indicators and comparative in-depth study in other ASEAN countries and regions are made.

Keywords:
Environmental scanning, airline competition, liberalisation, market phenomena, mixed methods, grounded theory

ACKNOWLEDGEMENTS

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ABBREVATIONS

ADW	Air Andaman
AEC	ASEAN Economic Community
AIQ	Thai AirAsia
ANS	Air Navigation Services
ASA	Air Service Agreement
ASEAN	Association of Southeast Asian Nations
ATI	Air Transport Intelligence
ATM	Automatic Teller Machine
BKP	Bangkok Airways
CAB	Civil Aviation Broad
CEO	Chief Executive Officer
DCA	Department of Civil Aviation
DDA	Doha Development Agenda
EU	European Union
FAA	Federal Aviation Administration
FDI	Foreign Direct Investment
FSC	Full Service Carrier
FTA	Free Trade Area/Agreement
GDP	Gross Domestic Product
GMID	Global Market Information Database
GRP	Gross Regional Product
HHI	Herfindahl-Hirschman Index
IDI	Individual Depth Interview
IFE	In Flight Entertainment
IPO	Initial Public Offering
KLIA	Kuala Lumpur International Airport
LCC	Low Cost Carrier
MAHB	Malaysia Airports Holding
MAS	Malaysia Airlines
MRO	Maintenance, Repair, and Overhaul
NGE	Angle Airways

NOK	Nok Air
OEA	Orient Thai Airlines
OTG	One-Two-Go Airlines
PAL	Philippines Airlines
PBA	PB Air
PCI	Per Capita Income
PSO	Pubic Service Obligation
RBA	Royal Brunei Airlines
RA	Research Answer
RM	Research Module
RO	Research Objective
RPK	Revenue Passenger Kilometre
RQ	Research Questions
SARS	Severe Acute Respiratory Syndrome
SBU	Strategic Business Units
SCP	Structure, Conduct, and Performance
SGN	SGA Airlines
SIA	Singapore Airlines
SKT	Skystar Airways
SME	Small-Medium Enterprise
SMS	Short Message Service
THA	Thai Airways
VAP	Phuket Airlines
WTO	World Trade Organization

1 Introduction

"Before the engagement, one who determines in ancestral temple that he will be victorious has found that the majority of factors are in his favour" (Sun-Tzu, 1994). Sun-Tzu (1994) recommends evaluating five factors[1] comparatively through estimations and seeking out their true nature before engaging the war. The thousand years an ancient script of "the Art of War" reflects an imperative of performing environmental/situational analysis as a crucial part of planning. At the present, in business war, the term strategic planning is used as means for systematically leading the enterprises' survival in turbulent business environments. Free trade regimes, global economy, intense competition, financial instability, regulation reformation, innovative technology, and social reconstruction are instances of many change drivers influencing the dynamic environments.

The airline business is one of the industries being challenged by such forces, especially in the Southeast Asia region which consists of 10 diverse country members where aviation liberalisation is an ongoing process. Therefore, this research is set out to explore the changing business environment and develop new conceptual frameworks to analysis them. The research topic is originally inspired by three main grounds: dramatically global changes, interdependent characteristic of the airline business and the emerging ASEAN airline market. The future is always an uncertain event. All firms operating under this very dynamic and chaotic circumstances seek the appropriate framework to analyse their environment. This chapter covers more details of mentioned sources of research idea.

1.1 Changing Global Business Environment: Flattening world creates the global single horizon

"The world is flat" seems to be the well-known simple analogy for recent global business circumstances. Since Friedman published his best selling book "The

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[1] Five Factors are 1) 'Tao' which causes the people to be fully in accord with the ruler ; 2) 'Heaven' which encompasses yin and yang, cold and heat, and the constraints of the seasons; 3) 'Earth' which encompasses far or near, difficult or easy, expansive or confined, fatal or tenable terrain; 4) 'General' which encompasses wisdom, credibility, benevolence, courage, and strictness; and 5) 'Laws' encompass organisation and regulations, the Tao of command, and the management of logistics.

World is Flat: A Brief History of the Twenty-First Century" in 2005, the investors and entrepreneurs around the world have realised this changing figure of the round world. Friedman (2005) states that the changes are not just about how governments, business, and people communicate, not just about how organisations interact, but it is about the emergence of completely new social, political, and business models. These radical changes have created many new platforms in doing business. Emerging markets, new frontier technologies, shifting consumer behaviour and widespread free trade agreements reconstruct new organisation's communication and interrelation patterns. People all around the world can directly access information, capital, products and connect to each other like they are on the same flat plate world rather than the round one, which, by certain distance, the horizon obstructs the vision.

Undeniably, these changes have been evolved with capitalism. Capitalism has become the foremost means of driving the new market opportunities as well as the new business battle fields. This school of thought believes in competition with little or no government intervention. By free flow of products and money among local and foreign countries, capitalism leads to less inequality and the wide distribution of the benefits of free enterprise have enormously reduced the extent of poverty in society (Friedman, 2002). In contrast, there are still many questions about the dark side of capitalism. Korten (2001) critiques that "never was human rejection of responsibility for society and nature greater than in the economic system humans called capitalism (p.340)".

Certainly, the global society has already been compelled with the capitalism economic paradigm. Most entrepreneurs seek to survive and gain the maximum and sustained profits. Whilst the economic growth brings benefits as it brings changes. Five years after the publication of "In the Search of Excellence", by Thomas J. Peters and Robert H. Waterman, which indentified 43 so-called "excellent" companies, two-thirds of the companies studied had slipped from the pinnacle. Of the forty-three, only fourteen are, as of this writing, still regarded as 'excellent' (Pascale, 1990).

When the market shifts as dramatical as it has since 2000, firms must learn how to change and align oneself with new market conditions (Friedman, 2005). Knowledge of the change drivers in holistic dimension becomes essential. Many scholars, government analysts, and consultancy firm experts seek out the key drivers

in both broad views and by business sector, for instance; Davis and Stephen (2006) from McKinsey summarises the ten trends of change as following:

1) Centres of economic activity will shift profoundly, not just globally, but also regionally.
2) Public-sector activities will balloon, making productivity gains essential.
3) The consumer landscape will change and expand significantly.
4) Technological connectivity will transform the way people live and interact.
5) The battlefield for talent will shift (from local sources to global sources).
6) The role and behaviour of big business will come under increasingly sharp scrutiny.
7) Demand for natural resources will grow, as will the strain on the environment.
8) New global industry structures are emerging.
9) Management will go from art to science.
10) Ubiquitous access to information is changing the economics of knowledge.

From the above list, there are many dimensions that correspond to various modes of change, for instance; macroeconomics, demographics, technological, social issues, business and industry developments. The study of these key change drivers remarkably benefits the effectiveness of firms' strategic planning. Additionally, the existing strategic planning templates available on the shelf mostly follow a reductionism approach, not an integral/holistic approach. The more holistic tool are becoming more important to help to define and determine both context and position for present and future (Feurer and Chaharbaghi, 1994).

1.2 Future Scenes of Airline Business: Interdependent Characteristic

The airline industry is one of the most rapidly growing industries. Airbus forecasts that global passenger traffic will follow a more normal long-term growth trend, with growth averaging 4.8% per year, over the twenty-year period 2006-2025 (Airbus, 2006). While Boeing's forecasts annual passenger growth at 4.5 % annually

rate, which is 68% higher than the world GDP growth annual rate at 3.1 % (see Figure 1-1) (Boeing, 2007).
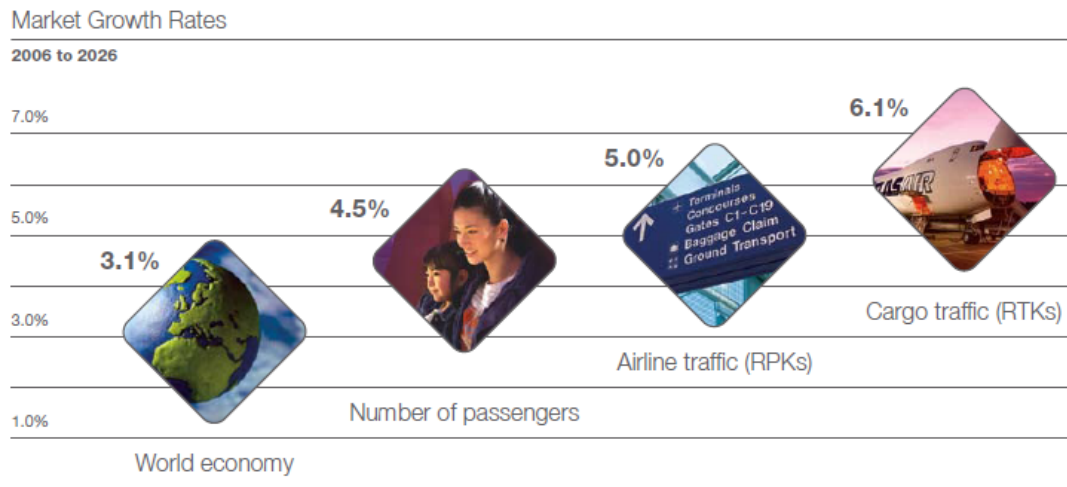
Figure 1-1 The Boeing's air passenger growth forecast
Source: (Boeing, 2007, p.3)

Apart from the rapid growth of the airline industry, the industry impacts enormously on economic and social as well. The world's airlines carry almost 2 billion passengers annually, 40% of interregional exports of goods (by value) and international tourists. The industry globally generates 4.3 million direct jobs in airline and airport sectors and a total of 29 million in direct/indirect/induced jobs (ATAG, 2005). Moreover, the industry's status is the link that exists in the minds of many between national airlines and national achievement and pride. International airlines 'carry the flag' around the world (Rhoades, 2003). The airline industry's cycles appear to be closely linked to the world economic trend. When growth in the world economy slows down, the growth in demand for air traffic and for air fright also slows down, though there may be a time lag (Doganis, 2006). Many scholars and industry executives suggest many diverse future scenarios for the industry, but there is one collective view on the industry's interdependent characteristic. The industry's multi-dimensional characteristics (social, demographic, political etc.) means is not easy to map the future of the industry.

1.3 The Emerging ASEAN Airline Market: regionalisation in globalisation regime

The Association of Southeast Asian Nations (ASEAN) was established on 8th August 1967. The country members of the association are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. ASEAN has had a long history of cooperation and is one of the strongest economic regions in the world. The GDP for the region is forecast to grow 4.2% in 2010 (ADB, 2009), while the world GDP is estimated at 3.0%(World_Bank, 2009).

Air travel is one of the designated eleven priority sectors for economic integration by 2010. In line with the ASEAN Framework Agreement for the Integration of Priority Sectors, the ASEAN Economic Ministers formalised the Air Transport Ministers (ATM)-endorsed Roadmap for Integration of Air Travel Sector which sets specific actions and milestones for greater integration and liberalisation of air freight and scheduled passenger services in the region. The Action Plan for ASEAN Air Transport Integration and Liberalisation 2005-2015 was adopted at the 10th ATM in November 2004. The plan sets strategic actions to further liberalise air services and promote an enabling environment for a single and unified air transport market in the region (ASEAN, 2004, ASEAN, 2005).

Figure 1-2 Southeast Asia region

Regarding Boeing's Current Market Outlook (2007), the annual air traffic growth in ASEAN is expected to average 5.9%, above the world average of 4.5% over the next 20 years: 2006-2026. The total amount of inter/intra-regional revenue passenger kilometres (RPKs) in 2006 is 478.9 billion (11.3% of world RPKs) and will increase to 1,245.4 billion in 2026, which shares 13.5% of the world RPKs (Boeing, 2007). By only 10 member countries, acquiring over 10% share and above average growth in the world air traffic indicates the high impact and potential of the regional market development. Though ASEAN member countries differ widely in terms of their GDP per capita, their size, aviation policies and the strength of their aviation industries (Forsyth et al., 2006), any changes in the region will certainly effect the world market.

The experiences from liberalisation in US and EU air transport markets show dramatically rising competition and a significant expansion of demand and supply (Williams, 2002). For the ASEAN case, social objectives, including national integration, have been overtaken by a much stronger emphasis on integrating the region's economies into the larger international economy (Bowen, 2000). The environmental and industry factors will shape the competition in Southeast Asia market (Hooper, 2005). Remarkably, regarding the very diversity in term of economic wise among ASEAN nations, the pattern of future change can be different from the others. Many particularly local and regional factors will form a specific transformation under the regionalisation scheme. In addition, the ASEAN is globally connected to many other economic regions. The global forces will undoubtedly impact the region's changes.

1.4 Research Rationale and Conclusions

Three main issues; dramatic global changes, the interdependent characteristic of airline business, and remarkably emerging ASEAN airline market, initiates the research ideas. To be able to cope with these changing content and context, globally and regionally, and particular characteristics of the airline industry, an in-depth study aimed to explore the real phenomena and to understand each strategic change driver in the market. Though there are many scholars had researched, in a reductionistic

way, various airline industry aspects, for instance; strategy, competition, regulation, liberalisation, performance, etc. , but an integral approach research offered here intend to study airline's key change drivers and their relationships in business context has never been done before. In addition, the research findings could be extended to develop new framework of airline business environment analysis.

2 Literature Review

This chapter explores existing literature to determine what were written or otherwise published on the related research topics, what previous researchers' findings are and how this impacts on the author's research problems. It comprises of 3 main sections, which each covers the key discipline related to research topic and scope; Strategy/Strategic Planning, Business Environment and the Airline industry (see Figure 2-1).

Airline Industry

Strategy/
Strategic Planning

Business
Environment
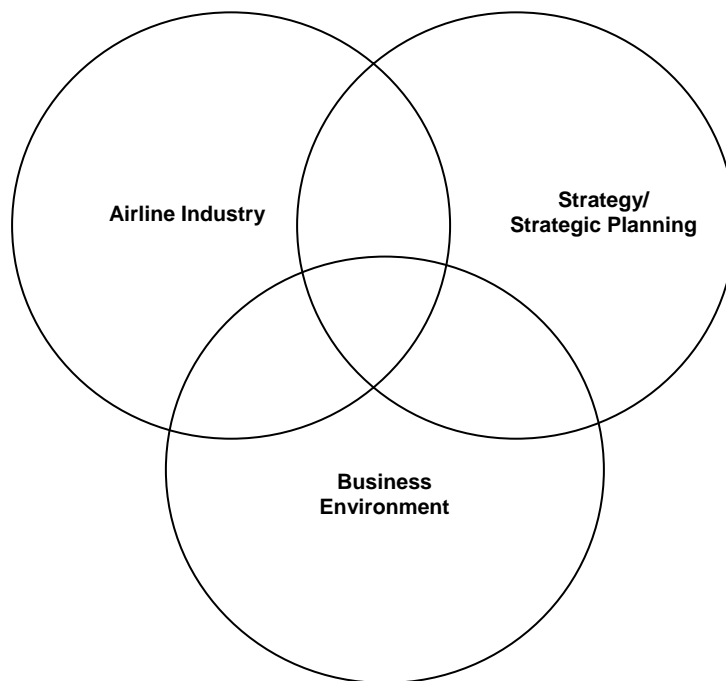
Figure 2-1 Academic area integration in the research

2.1 Strategy

The earliest large-scale organisations were military, and a lot of management theory was developed from the experience of controlling large armies (Pearson, 1999). The word 'strategy' is drawn from the ancient Athenian of 'strategos'. Strategos is position of 'stratos'; which means army, and 'agein'; which means to lead. The emergence of the term paralleled increasing military decision-making

complexity and strategic leadership. Warfare had evolved to a point where the winning side relied no longer on the deeds of heroic individuals, but on the co-ordination of many units of men each fighting in close formation (Cummings, 1993). Accordingly, coordination between the various military units became imperative for successful commanders. These represent strategy root in ancient military practices. Apparently, from the ancient war to the modern business world, the term has been used widely in various aspects.

Since early 1960's, the strategy have been introduced and developed through an academic circle and industry wide as a rising discipline. The literatures of Alfred Chandler in 1962 and other scholars were taken at Harvard Business School, where it first introduced a course requirement for business policy into the business school program. Chandler (1962, p.13) defines 'strategy' as "The determination of the basic long-term goals and the objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." Drucker (1994) adopts strategy's definition as a firm's theory of how it can gain superior performance in the markets within which it operates.

Chandler's and Drucker's definitions define strategy in terms of intentions. Mintzberg and Waters (1982) argue that organisations may sometimes pursue strategies that were never intended. Mintzberg's definition is more specific in multi-aspects. He agues that strategy requires five definitions (Mintzberg, 1987, Mintzberg et al., 2005):

1) Strategy is a plan: a direction, guide or course of action into the future

2) Strategy is a pattern: that is contingency in behaviour over time.

3) Strategy is a position: namely the locating of particular products in particular markets

4) Strategy is a perspective: look in-inside the organization, indeed, inside the heads of the strategists, but it also looks up-to a grand vision of the enterprise.

5) Strategy is a ploy: that is a specific manoeuvre intended to outwit an opponent or competitor.

Strategy is the very common term used in daily life. There are probably a hundred different definitions. In the recent management academic world, strategy is categorised in the "strategic management" domain, introduced by Schendel and Hofer (1979). It conceives of the management of strategy as consisting of the following steps and tasks; goal formulation, environmental analysis, strategy formulation, strategy evaluation, strategy implementation and strategy control. The following are results from reviewing literatures relevant to the author's research scope.

2.2 Strategy: Evolution and Classifications

2.2.1 Evolution of Strategy

Since early the 1960s, the authors like Alfred Chandler who provided a disciplinary base for studying the modern corporation and inspired others at Harvard to build upon further research. The strategy domain has evolved along with the industry evolution. Bowman, Sign and Thomas (2002) argue that many of the changes in thinking in strategic management have been catalysed and influenced by some of the challenges faced by executives during these periods. In the 1960s, the period of World War II recovery and prosperity and emerging form of the modern business enterprise, it was a growth decade for many organisations. The industry moved forward toward diversification in order to enhance this growth. As a result, academic research in this period focused on growth, expansion, acquisition, diversification, and corporate control of the conglomerate enterprise.

In the 1970s, the industry was characterised by a combination of stagnation and inflation. The business community returned to conservative styles of management, moving back from diversification and into discipline of financial control system. In parallel, there was a need of increasing market share and cash flow to fund new ventures. Those became the age of portfolio management and the invention of 'strategic business units (SBUs)'. In the 1980s, there was strongly increased foreign competition, which lead to the phenomenon of 'globalisation' of industries and companies (Porter, 1988). This was also the period when financial strategy became increasingly important. Many companies were under pressure from the corporate who

determined that they could take over the companies and redeploy financial resources to more productive utilisation. This period of academic research focused on aspects of restructuring, divestments of divisions, organisation down sizing, and top management teams (Bantel and Jackson, 1989, Sign, 1990)

In the 1990s, there was a rapid and discontinuous economic and political change in the international environment. The cold war ended, Eastern Europe opened up, Japan began its own internal problems, and EU grew. Corporate networks and cooperative strategy was focused. Academic research in this period focused on strategic alliances, corporate ventures, technology management and knowledge management. Venkatraman and Subramaniam (2002) summarise the shaping feature of strategy into 3 eras, chronographically; era1- portfolio of business, era2-portfolio of capabilities, and era3-porfolio of relationships (see Table 2-1).

	Era 1(1970s)	Era 2(mid 1980s)	Era 3(mid 1990s)
Description	Portfolio of businesses	Portfolio of capabilities	Portfolio of relationships
Key drivers of competitive advantage	Economies of scale	Economies of scale and scope	Economies of scale, scope, and expertise
Key resources	Physical assets	Organizing skills for managing relatedness across business	Position in the network of expertise
Unit of analysis	Business unit	Corporation	Network of internal and external relationships
Key concept	Leverage industry imperfections	Leverage intangible resources	Leverage intellectual capital
Key questions	What products? What market?	What capabilities?	What streams of expertise?
Dominant view	Positioning	Inimitability of processes and routines	Network centrality

Table 2-1 The evolution of strategy from a theorising perspectives
Source: (Venkatraman and Subramaniam, 2002, p.462)

The preceding paragraphs show the relationship between the evolving external business environment and strategy being developed in academic world. The evidence clearly shows the interaction and interrelation between two worlds; business world and academic world. Both worlds try to survive and share each own interests in order to enhance sustainable growth. Regarding the reviews, there is no single right answer or generic tool in the strategy domain to cope with all changes. Strategy itself is divergent, not convergent, diverting to the always changing directions of the business world. As a result, there is a remarkable expectation that whole area of strategy will

call for a different way of thinking during the period of radical change (Whitehill, 1996).

2.2.2 Classifications of Strategy

The literature review of the strategy field shows that there are many schools of thought in strategy each establishing their own different kinds of strategy classification. The main objective of classifying strategy is to distinguish each single type of strategy in certain either single- or multi-dimension. The author categorises the reviewed strategies into seven types:

Strategy Classified by Formation (Process-oriented): This classification focuses on various processes of strategy formation. Mintzberg (2005) introduces the results from his reviewing a large body of literature, ten distinct points, named 'schools', of strategy emerges most of which are reflected in management practices. All ten schools are clustered into three groups. The first three schools are grouped by their 'prescriptive' nature, more concerned with how strategies should be formulated than how they necessarily do form. The six schools have been concerned less with prescriptive ideal strategic behaviour than with 'describing' how strategies do get made. The final one, called configuration, seeks to be 'integrative', clustering various elements of strategy making process, the content of strategies, organisational structures and their contexts-into distinct stages or episodes. The list of ten schools is this follows:

1) The Design School: focuses on strategy formation as a process of 'conception'

2) The Planning School: focuses on strategy formation as a 'formal' process

3) The Positioning School: focuses on strategy formation as a 'analytical' process

4) The Entrepreneurial School: focuses on strategy formation as a 'visionary' process

5) The Cognitive School: focuses on strategy formation as a 'mental' process

6) The Learning School: focuses on strategy formation as a 'emergent' process

7) The Power School: focuses on strategy formation as a process of 'negotiation'

8) The Cultural School: focuses on strategy formation as a 'collective' process

9) The Environmental School: focuses on strategy formation as a 'reactive' process

10) The Configuration School: focuses on strategy formation as a process of 'transformation'

Another approach classifying strategies by formation perspective is laid in multi-dimension; process and outcomes. There are four approaches to strategy, differing along two dimensions: the 'outcomes' of strategy and the 'process' by which is it made (see Figure 2-2). The 'classical' approach is a rational process of deliberate calculation and analysis, designed to maximise long term advantage. 'Evolutionary' perspective argues that the dynamic, hostile and competitive nature of markets means not only that long-term survival cannot be planned for; it also ensures that only those firms do hit upon profit-maximising strategies will survive. 'Processual' approach argues that it is the very imperfections of organisation and market processes to which managers owe their strategies and competitive advantages. It is better not to strive after the unattainable ideal of rational action, but to accept and work with the world as it is. 'Systematic' approach does retain faith in the organisation's capability to plan forward and to act effectively within their environments, but they refuse to accept the ends in purely economic efficiency. They insist that the rationales underlying strategies are peculiar to particular sociological context (Whittington, 1993).

OUTCOMES

Profit-Maximizing

CLASSICAL   *EVOLUTIONARY*

PROCESS

Deliberate   Emergent

SYSTEMIC   *PROCESSUAL*

Pluralistic
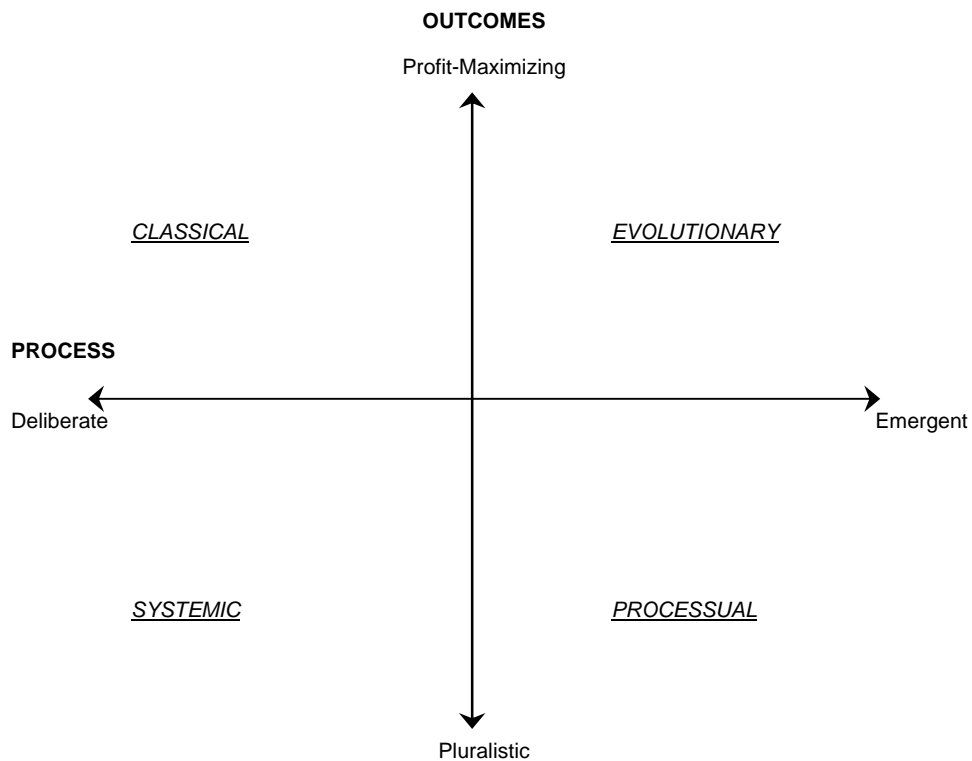
Figure 2-2 Generic perspectives on strategy
Source: Whittington, 1993

Strategy Classified by Hierarchy(Level-oriented): Wit and Myer (1998) argue that the strategies can be clarified by distinguishing the level of strategy at which each is most relevant. The most common distinction between aggregation levels made in strategic management literature is between the functional, business and corporate levels. Strategy issues at the 'functional level' refer to questions regarding specific functional aspects of a company. Strategy at the 'business level' requires the integration of functional level strategies for a distinct set of products and/or services, intended for specific group of customers. 'Corporate level' strategy is required for the company, that is in two or more businesses, to synchronise the various business level strategies. In addition, according to, in fact, firms often cluster together into groups of two or more organisations. They add one more strategy level, 'network level', where strategy is developed for a group of firms.

Lu (2003) agrees strategy can be analysed at three different levels. The first level is 'enterprise strategy', which includes social responsibility and stakeholder issues. The oher two levels are same as Wit and Myer's view, corporate and business strategies. The former strategy includes diversification, vertical integration, mergers

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and acquisitions, and internal venturing. The latter one includes choice of competitive weapons (e.g., cost, differentiation, focus) and product/market selection. These latter two strategy levels are revisited in Hitt, Ireland and Hoskisson's strategic management book, defining business-level strategy as "an integrated and coordinated set of commitments and actions the firm uses to gain a competitive advantage by exploiting core competencies in specific product markets" and corporate-level strategy as an specific actions taken by the firm to gain a competitive advantage by selecting and managing a group of different business competing in several industries and product markets" (Hitt et al., 2003, p.112 and p.183).

Strategy Classified by Question (Problem-oriented): By this approach, the strategies are classified by the problem-oriented approaches to learn about how strategy has been adapted. These are three dimensions of strategy that can be recognized in every real-life strategic problem situation. They are defined as follows (Wit and Meyer, 1998):

1) *Strategy Process*: This is concerned with the 'how', 'who' and 'when' of strategy- how is, and should, strategy be made, analysed, formulated, implemented, changed and controlled; who is involved; and when do the necessary activities take place?

2) *Strategy Content*: This is a product of strategy process and be concerned with the 'what' of strategy- what is, and should be, the strategy for the company and each of its constituent units?

3) *Strategy Context*: This refers to the set of circumstances under which both the strategy process and strategy content are determined. Stated in terms of question, strategy context is concerned with the 'where' of strategy- where, that is in which firm and which environment, are the strategy process and strategy content embedded.

Strategy Classified by Cycle (Situation-oriented): Management in general is now becoming aware that changing trends are not merely passing phases but have real depth and are changing the whole structure of the corporate environment. James (1974) outlines 'the corporate life cycle' to be used as a planning aid (see Figure 2-3). While, Herbert and Deresky (1987) investigates various thought relevant to those

cycle perspectives. As a result, synthesis and categorisation of the literature on strategy classifications led to the development of four generic strategies:

1) *Develop strategy:* The strategy is to grow through locating and exploiting new product and market opportunities. R & D are important both for products and innovations to production. The marketing strategy emphasizes search of market share and high risk taking. The financial orientation in this case is longer term with less concern with absolute cost efficiency.

2) *Stabilize strategy:* The strategy is that of maintaining firm's competitive position through efficient asset utilization and/or market segmentation. This may be both through niche strategy and across the industry, and will be backed by strong brands and/ or product specialization, with emphasize on high utilization.

3) *Turnaround strategy:* The strategy is to arrest and reverse the declining fortunes of the business as quickly as possible. Typically, it requires tightened controls strategies to limit negative cash flows, rationalization of product lines and production capacity in the first hand. This may be followed by new products, merger and acquisition or sell-offs, and perhaps new investment.

4) *Harvest Strategy:* The strategy is standard fix with two subtypes: 'Deliberate harvest' which is a planned and longer term divestment in an orderly fashion. Here investment is kept to minimum necessary to sustain adequate returns. Market share is in favour of profits. The 'Emergent harvest', in contrast, results from unintended consequences such as failed turnaround or rapid environmental change such as product obsolescence and has to be executed.
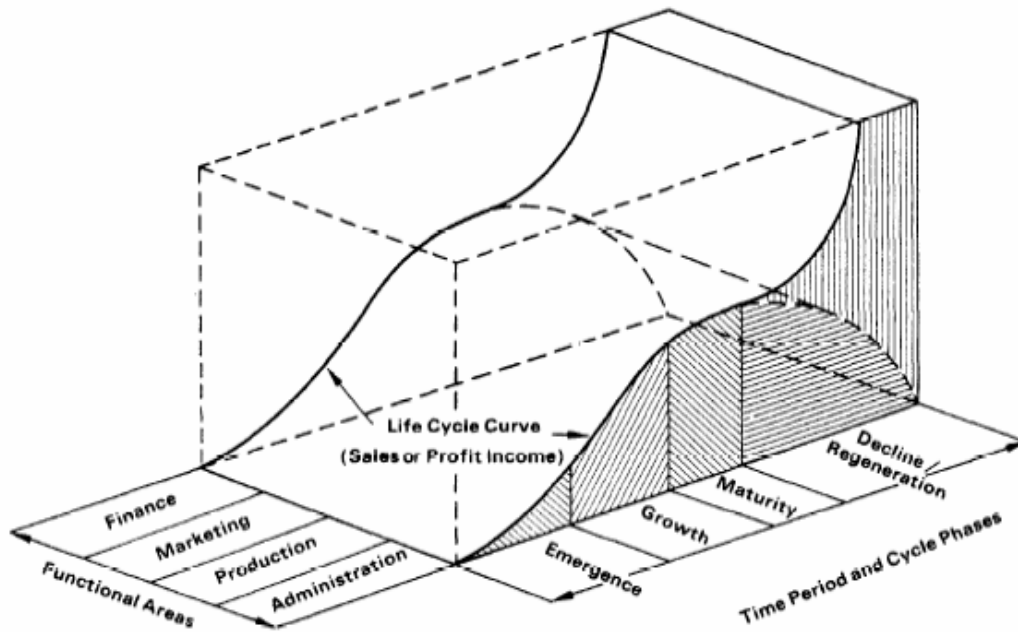
Figure 2-3 The corporate life cycle and functional areas of corporate activity
Source: James, 1974, p.51

Strategy Classified by Position (Target-oriented): The central concept of strategic management, named 'fit', is referred when products and markets come together. 'Fit' or the strategic position itself is how product be placed in the market. It is logically discussed in term of matching between product-offered and market-served (Mintzberg, 2005). The strategy rests on the premise that firm is thus able to serve its narrow strategic target or broad one (Porter, 2004). There are 4 types of strategy are laid in this classification as follows:

> 1) *Commodity Strategy:* The strategy targets a mass market with a single, standardized product.
>
> 2) *Segmentation Strategy:* The strategy targets a segment with a range of products, geared to each of the different segments.
>
> 3) *Niche Strategy:* The strategy targets a small isolated market segment with a sharply delineated product.
>
> 4) *Customization Strategy:* The strategy is the ultimate in both niche and segmentation designs or tailors each specific product to one particular customer need.

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Strategy Classified by Character (Behaviour-oriented): Miles et al. (1978) introduces four of organisation strategic encounter types: 'Prospector', 'Defender', Analyzer' and 'Reactor'. The formulation specifies relationships among strategy, technology, structure, and process to the point where entire organisations can be viewed as integrated wholes in dynamic interaction with their environments. The form of each type is described below:

1) *Prospector:* This strategic type is described as first mover and aggressive in new product development. Firms, fallen in this type; spend high expenditures in new product and R&D and often found in technology-oriented and new industries. Their customer segments are often not well defined. They are often 'cash hungry' and relatively inefficient in terms of cost-per-unit.

2) *Defender:* This strategic type focuses on maintaining position, may entail aggressive marketing efforts, and is typically found in mature markets. Firms target 'mass market' and focus repeat/replacement buyers. They are underpinned by stable technology and compete through cost reduction, quality improvement, price competition and promotion.

3) *Analyzer:* This strategic type is a unique combination of the former two types. A true Analyzer is a firm attempts to minimise risk while maximising the opportunity for profit and combines the strengths of both the Prospector and the Defender. The Analyzer focuses on maintaining position in core market and is selective pursuit of new product opportunities.

4) *Reactor:* Reactor exhibits a pattern of adjustment to its environment that is both inconsistent and unstable. This type has no well-defined strategy and lacks a set of response mechanisms which can consistently put into effect when facing a changing environment.

Strategy Classified by Interaction (Intention-oriented): Every business firms, once they established, seek to be sustainable growth and/or survive in the market. The market where two or more players are in the place, the 'competition' is the norms and

induces different kinds of interrelation among firms. The author ends classifying strategy by this last category; 'Intention-oriented' one. This details the firm's intentions in responding to its environment. Business people set their mind, before formulating their strategies, in 3 different ways; 'to compete', 'to cooperate' and 'to avoid competition'. Accordingly, the author demonstrates 3 types of strategy, associated with each different intention, as follows:

1) *Competitive Strategy:* this strategy is the most well-known one in strategic management society. Porter is the leader scholar. He argues that a business can strive to achieve a completive advantage higher than its rivals by leveraging its skills and resources to perform certain primary and support value chain activities (Porter, 2004).

2) *Cooperative Strategy:* Moore (1993) suggests that successful businesses are those that evolve rapidly and effectively, they must attract resources of all sorts, drawing in capital, partners, suppliers, and customers to create cooperative networks. The cooperative strategy is a strategy in which firms work together to achieve a shared objective (Barney, 2002).

3) *De-competitive Strategy:* Kim and Mauborgne (2005) argues that corporate strategy is heavily influenced by its root in military strategy. It is about confronting an opponent and fighting to outperform rivals and capture greater shares of existing market space. They introduce so called 'Blue Ocean Strategy', by contrast, is doing business where there is no competitor, creating new land-not dividing up existing land. The strategy founds 2 main aspects: One is to find and develop markets where is little or no competition, in either existing market or the new one, and the other is to exploit and protect this new established space (Kim and Mauborgne, 2004).

2.3 Strategic Planning

Strategic planning was born in the mid 1950s. One sample of the very first introduced process is the Planning, Programming and Budgeting Systems (PPBS). Strategic planning has evolved continuously among the critique of failures appeared alongside the success. Most practitioners of strategic planning recognise the value of the process as a means of disciplining their planning activities and applying critical thinking to their business situation, on the other hand, there is a sense that the process has taken them about as far as it can (Webster et al., 1989).

Drucker (1959) defines strategic (long-range) planning as continuous process of making present entrepreneurial (risk taking) decisions systematically with the best possible knowledge of their futurity, organizing systematically the efforts needed to carry out these decisions, and measuring the results of these decisions against the expectations through organized, systematic feedback. Steiner (1979, p.16) describes "Strategic planning is not a simple aggregation of functional plans or an extrapolation of current budgets. It is truly a systems approach to maneuvering an enterprise over time through the uncertain waters of its changing environment to achieve prescribed aims." On the other hand, some scholars stress that the strategic planning need ideas and creativity as well, not only the analytical and system approaches. Simpson (1998) argues that strategic planning is about ideas, not about forecast or projections. It is a process that is both creative and analytical, is issue rather than calendar-driven, and is primary concerned with external data, usually not financial in nature (Anthony, 1965).
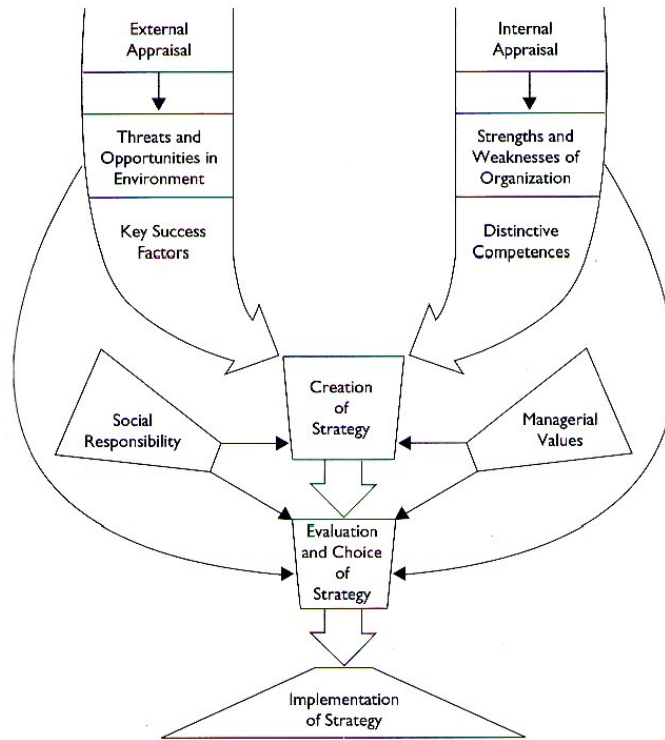
Figure 2-4 Model of Strategy Formation
Source: (Mintzberg, 2000, p.37)

According to Mintzberg's ten schools of strategy formation process, strategic planning could be a member of the first three schools (design, planning and positioning) as it emphasises the rational and prescriptive of the process. As shown in Figure 2-4, strategic planning as strategy formation is created at the intersection of and external appraisal of the threats and opportunities facing an organisation in its internal environment (Mintzberg, 2000). In reviewing a number of literature, Strategic planning could be included in the core strategic management process, which consists of 4 basics elements; environmental scanning/analysis, strategy formulation, strategy implementation, and evaluation and control, as its function cover the first two processes, as shown in Figure 2-5 (Hitt et al., 2003, Mintzberg et al., 2005, Wheelen and Hunger, 2002).
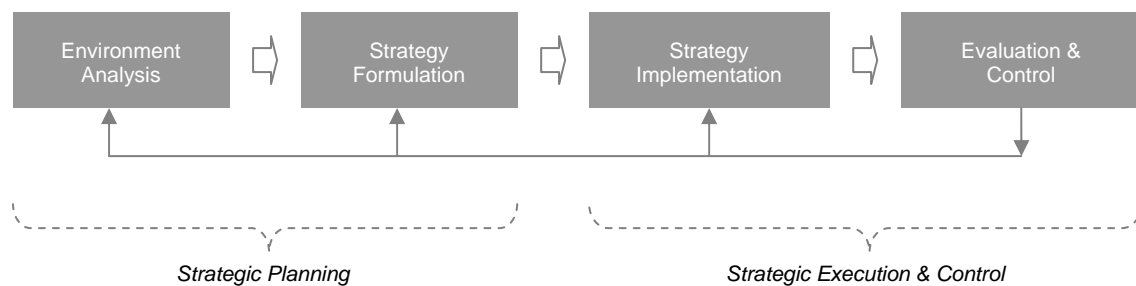
Figure 2-5 Strategic planning as one element of strategic management processes

2.4 Business Environment Analysis

No firm which hopes to succeed can ignore the environment in which it operates, and likewise no firm can merely acquire knowledge about its environment without acquiring wisdom and understanding about the implications that the environment has for the firm (Pitkethly, 2003). The "Business Environment" generally represents both internal and external environments. Hitt, Ireland et al. (2003) describe the essences of these two types of business environment as the external one is based on Industrial Organisation model (I/O model) which views that strategy dictated by the external environment of the firm and the firm develops internal skills required by the environment, whereas, the latter one is explained by Resource-Based model that strategy dictated by the firm's unique internal resources and capabilities and it find an environment in which to exploit these assets. This research focuses on external environment. It is considered which embraces the whole set of relevant strategic conditions surrounding the firm and its analysis could lead to the understanding of how firms interact with the others, whether by competing, cooperating, or coexisting. Lynch (2003) summarises importance of environment analysis as follows:

1) It provides information on the nature of competition as a step to develop sustainable competitive advantage.
2) Most organisations can perceive opportunities that might be explored and threats that need to be contained.
3) There are opportunities for networks and other linkages, which lead to sustainable co-operation.

In the field of economics, the environmental analysis can be found primarily in the field of industrial organisation economics. The development of the Structure, Conduct, and Performance (SCP) model is perceived as one of the key sources of business environment and strategy from an industrial organisation economics viewpoint. According to the SCP model, basic factors concerning economic and technical conditions influence 'industry structure', which is characterised by factors such as the number of buyers and sellers, the industry concentration, product differentiation level, extent of vertical integration, barriers to entry, and other related factors. The industry structure sequentially determines the firms' 'conduct' which is defined by factors such as their pricing behaviour, product strategies, research and innovation, legal tactics, and other factors, which all together contribute to the 'performance' of the industry which is defined in economics terms (Pitkethly, 2003).

According to the viewpoint of environment analysis, the SCP model outlines high value on the analysis of the industry structure as a critical determinant of industry performance. In contrast, Porter (1981) argues the model has limitations as the essence of the SCP perspective is the industry which is central and determines performance, but the actions of individual firms within the industry and their ability can alter industry structure. It is the firms making up the industry that are central to assessing performance and in fact the firms' conduct can sometimes affect structure and thus performance (Scherer and Ross, 1990). See Figure 2-6.
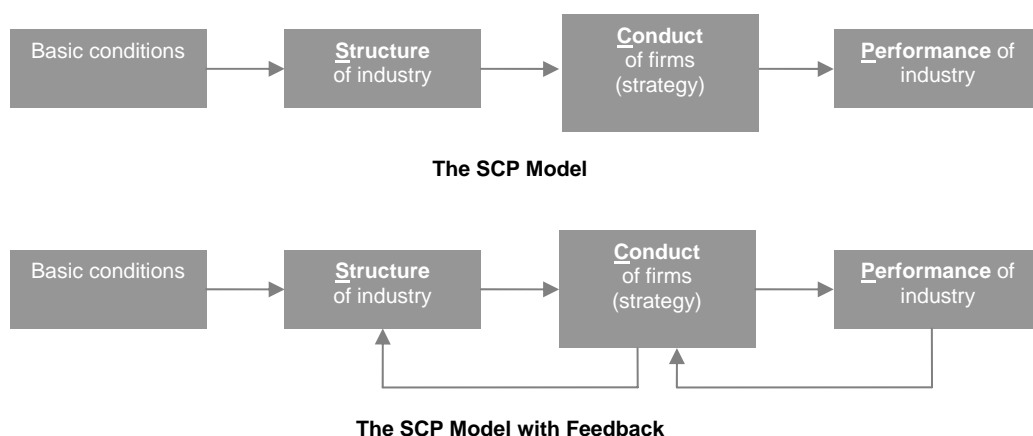
Figure 2-6 The comparison between the original SCP model and the one with feedback
Source: Based on Scherer and Ross (1990) and Porter (1981)

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Additionally, different situations of the environment could give rise to different behaviours of the firm. Therefore, Mintzberg (1979) identifies four dimensions of environment situations as follows:

1) Stability: can range from 'stable' to 'dynamic'. A variety of factors can make an environment dynamic, including unstable government, unexpected changes in customer demand or competitor supply, a rapidly changing technology or knowledge base, etc.

2) Complexity: can range from 'simple' to 'complex'. An environment is complex when it requires the firm to have great deal of sophisticated knowledge about products, customers, or whatever.

3) Market diversity: can range from 'integrated' to 'diversified'. Integrated market represents firm sells its one commodity to whole markets.

4) Hostility: can range from 'munificent' to 'hostile'. Hostility is influenced by competition, by the firm's relationships with unions, government, and other outside groups, as well as the availability of resources.

2.4.1 The Conventional Perspectives of Business Environment

Companies' experiences and research suggest that the external environment affects firm growth and profitability (Rindova and Fomburn, 1999). There are many scholars that explore the significant external environmental factors effect the firms, for instance: Hoskisson et al. (2005) found three factors affecting restructuring of firm-global and domestic competition, deregulation effects, and tax incentives; Downes and Mui (1998) argue that today's business is facing three new forces: digitization, deregulation, and globalization-which overshadow the importance of the old ones; Andrew (1996) describes there are six company environmental aspects: technology, ecology, economics, industry, society, and politics; and Porter (1988) introduces five forces, very widespread used, driving industry competition; threat of

new entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products or services, and rivalry among existing forms.

There are several different aspects toward business environment. Some focus more on the microeconomic point of view, while some are further away. Regarding results from the author's review, all factors can be regrouped to two main generic business environments (Hitt et al., 2003, Wit and Meyer, 1998, Porter, 2004, Pitkethly, 2003, Pearson, 1999, Lynch, 2003):

1) *Task Environment:* This includes external environments factors directly influence the firms' operation and performance. They are derived from each member in supply chain such as 'Supplier', 'Complementor', 'Competitor', 'Distributor', and 'Buyer'.

2) *Common/General Environment:* This is composed of dimensions in the broader society that influence an industry and firm within it (Walters and Priem, 1999). For example; 'Economy', 'Legal & Policy', 'Social', 'Technology', and 'Environment'.

2.4.2 The Ecological Perspectives of Business Environment

The biological evolution is an intriguing metaphor to use when thinking about business strategy. Every living organism has survived hundreds of thousands of years of changing environment, so by definition, evolution through natural selection must be a good strategy (Hartwig, 1998). Hannan and Freeman (1977) introduce 'population ecology', associated with evolutionary theory, and suggest organisations' subunits scan environment, formulate strategic responses and adjust their structure. The relationship between structure and environment must reflect adaptive behaviour or learning. They introduces 'Niche'-area in constraint space in which the population outcompetes all other local populations- and its' growth depends on the environmental variation.

A natural ecosystem is an environment with interdependent biological participants competing in real-time with their own kind and with predators for resources so they can continue to reproduce and evolve. There are three overarching principles that describe both natural and business ecosystem (Rabkin and Bradford, 2002):

- The ecosystem itself continues to change as various forces act on it (e.g., climate, catastrophes, the introduction of new species) and simultaneously within it (e.g., the predator/prey interaction)
- Outcomes are unpredictable in terms of scale and scope.
- The rules of survival and adaptability change as the ecosystem changes.

The ecological view shows remarkable differences in the way firms perceive their environments. The conventional mainstream views each single business environmental factors deductively and separately, but, in contrast, ecological one does integrally and holistically. Moore (1993) argues that, in ecological angle, a company be viewed not as a member of a single industry but as part of a 'business ecosystem' that crosses a variety of industries. In a business ecosystem, companies co-evolve capabilities around a new innovation: they work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations (see Figure 2-7). The companies fall outside the traditional value chain of suppliers and distributors that directly contribute to the creation and delivery of a product and/or service. Iansiti and Levien (2004, p.70-71) suggests the members in business ecosystem as follows: "Your own business ecosystem includes, for example, companies to which you outsource business functions, institutions that provide you with financing, firms that provide the technology needed to carry on your business, and makers of complementary products that are used in conjunction with your own. It even includes competitors and customers, when their actions and feedback affect the development of your own products or processes. The ecosystem also comprises entities like regulatory agencies and media outlets that can have a less immediate, but just as powerful, effect on your business."

Government agencies and other quasi-governmental regulatory organizations

Stakeholders, including investors and owners, trade associations, labor union, etc.

Standards bodies

Suppliers of my Suppliers

Direct Suppliers | Core Contribution | Distribution Channels

Direct Customers

Customers of my customers

Suppliers of my Complementary products and services

Competing organizations having shared product and service

Figure 2-7 Business Ecosystem
Source: (Moore, 1996, p.27)

2.5 Airline Industry

This last part of literature review covers four main issues: Airline Industry Characteristics; Airline Critical Factors and Future Key Changes; Airline Deregulation, Liberalisation, and Competition; and Airline Strategic Issues.

2.5.1 Airline Industry Characteristics

Doganis (2006) demonstrates the airline industry's profitability tends to be cyclical on a global basis. Its cycles appear to be closely linked to the world economic directions. The airline product also has its own nature. The demand for passenger air services is a derived demand. It is solely dependent on the demand for other activities, for instance, business conference or summer holiday. One airline seat, as product/service, is very similar to another (or the same class of travel) and there is little difference between one aircraft and another. This consequence creates two

remarkable effects: costly efforts by airlines to differentiate their product/services and the emergence of entirely new airlines, competitors (Doganis, 2002).

Taneja (2003) also determines the airline industry characteristics by twelve aspects. He remarks there are other factors excluded, such as regional conditions and those of a highly technical nature. The list shows a set of fundamental characteristics in global airline view as follows:

- Excessive Government Intervention
- Network-Driven Structure
- Organised Labour
- High Labour, Capital, and Fuel Intensity
- High Fixed and Low Marginal Costs
- High Cyclicality and Seasonality
- Revenue Vulnerability
- Destructive Competition
- Commodity Products
- Vulnerability to Weather and Infrastructure
- Uneven Playing Field
- Extremely Variable Planning Horizon

2.5.2 Airline Future Changes and Key Drivers

There are many scholars in the air transport field proposing the future of the airline industry. Abeyrante (2001) defines nine key drivers that will play an important roles in shaping the future airline industry. They are changes in airline strategic alliances, aircraft leasing, slot allocation and airport congestion, privatizations of airports, the display of airline computer reservation system on the internet, the use of smart cards as passports, the exchange of trade secrets relating to information technology, trademarks of the airline industry, and the fuel tax and emissions trading a market-based options in air transport. While, Taneja (2004) introduces ten key changes in the future airline aspects: emerging of different and innovative airline business models, the customers become smart and in charge of their own reservations,

evolving distribution channels and system, ongoing market instability, there are still some legacy airline failures over a long period, regrouping among full service and no-frill carriers, rationalizing hub and fleet, consolidation and changes in size and scope, wider adoption of low-fare & low-cost strategy, and radical general cost reduction.

Doganis (2006) considers the airline industry in each major region and continent. There are three groups involved. The major world regions one will see the emergence of a handful of two or three region/continent network dominator airlines. Those operating a low-cost model will consolidate within the scheduled low-cost sector, with two or three major low-cost carriers dominating each major region or continent. Niches carriers, in passenger sector-often the former flag carrier- will remain but will have reduced networks and regional ones will operate as full franchises on a code-share basis with the network dominators. On the cargo side, the specialist all-cargo will survive the largest one will be the integrators.

Additionally, focus more on critical factors shaping the airline, Rhoades (2003) demonstrates three factors required to harmonise the US-EU market: rules governing market entry-access, and pricing; rules governing airline ownership and the right of establishment; rules governing competitive behaviour and policies; and rules governing leased aircraft. Goh (2005) suggests the low-cost carriers in Southeast Asian markets to be aware of the insufficient number of good secondary airport, price war with the incumbents, Asian nations restricts on open their home airports, and increasing number of players in the field. While Taneja (2004), again, identifies three obstacles to change: Pervasive government intervention, conventional thinking in unconventional times, and future planning burdened by past decisions.

2.5.3 Airline Deregulation, Liberalisation, and Competition

In the global air transport marketplace, which favours full market access, concentration, competition, and multi-lateralism, bilateral agreements with the restrictions on ownership and control of airlines are no longer relevant. Some nations are slow to react to new economic era, mainly to protect their own national interests. In contrast, some governments have been initiating deregulation and liberalisation.

Through borderless investment, airlines progressively become "global", following the trend of many other industries (Lelieur, 2003).

The deregulation and liberalisation in many countries and regions show the remarkable impacts. The deregulation of many domestic markets initiates the increased number of seats supplied but decreased the number of route served, by contrast, the deregulation of most international markets stimulates the radical change in rising number of both seats supplied and routes operated (Williams, 2002). There is argument on the negative side of deregulation. In Canada, this has been more apparent in addition to the impact of deregulation and liberalisation policy on the airline industry, Canada's peculiar geopolitical characteristics have intensified the new pressures to which it has had to respond. By the fifth year of deregulation, Canada's airlines were in crisis and faced the distinct possibility of the collapse of the domestic airline industry, necessitating the opening of the home market to foreign carriers (Small, 1993).

The other aspect toward the deregulation is about the passengers. Obviously, in terms of air fare, there are many significant evidences show the remarkably declined fares. In contrast, according to ground access fares, the potential benefits to passengers from increased airline competition will in general be partially absorbed by increased airport charges at unregulated airports, and in some circumstances this may even result in increases in overall charges, not reductions. Similarly, unilateral deregulation leading to increased airport competition in one country may just lead to the majority of the gains going abroad. The conclusion is that claims of big passenger gains from deregulation and competition may be exaggerated, and achieving these gains in reality may need subtle and quite far-reaching government intervention (McHardy and Trotter, 2006).

There are also some significant differences in deregulation and competition between the developed and developing countries. The developed country has had greater opportunity and capability to undertake prior evaluation of policy changes and it has been able to monitor the performance of deregulation. But the government of developing country has to react in a dynamic market without the benefit of a broad, public evaluation of the alternatives (Hooper, 1998). Especially in the very diversified

markets in Asia, where the countries differ widely in many aspects, for instance, economic, social, country size, and aviation policies (Forsyth et al., 2006).

2.5.4 Airline Strategies Issues

In order to survive and get sustainable growth, the airlines have to be aware their evolving business environments and be adaptive through the pursuits of fit strategies. Many scholars suggest the airline strategy in various dimensions. Most of the strategies, from the authors' review, are laid in the intention-oriented strategy: competitive, cooperative, and de-competitive strategies. Noticeably, in the air transport academic society, the proposed strategies mostly are the multi-dimensional ones. They are mixed with many various aspects. From the book review, Taneja (2003) introduces three survival strategies: hold stakeholder discipline and a shared mindset, learn from successful new entrants, and make profit from multi-industry insights. Doganis (2006) uses the same words, strategies for survival, and states six strategies in the twenty-first century: clarifying the corporate mission, repairing the network model, reducing cost as a long-term necessity, marketing focused on yield improvement, developing an alliance strategy, and getting corporate culture improved.

Particularly in low-cost sector and Asian markets, 'Simple Product', 'Low Operating Costs', and 'Offensive Positioning' are declared as a key success drivers of the low-cost carrier market (Klaas and Klein, 2005). In Asian markets, capturing demographics characteristic of travellers is still fit strategy. There are already some airlines like Tiger Airways which have targeted young adults and ValuAir who have targeted female travellers who are avid shopper (Goh, 2005). Lawton and Solomko (2005) argues the lowest cost is not enough to build a successful low-fare airline business model in Asia. Some other aspect such as distribution strategy is also the imperative one.

In order to construct the conceptual framework for investigating external environmental key factors/drivers, the author has reviewed the relevant academic journal papers related to airline strategic planning and environmental scanning. Total eight dimensions are categorised and listed as follows (Shuman, 1974, Subramaniam

and Sharma, 1975, Bouamrene and Flavell, 1980, Taneja, 1982, Zallocco et al., 1983, Stiwenius, 1985, McIvor et al., 2003, Davies et al., 2005, Cunningham et al., 1984):

1) Competitive Factors: All information about competitors' present and potential, including their actions, decisions, strategies, plans, strength, weaknesses, etc.

2) Market Factors: All information about the markets excluding issues connected with competition. Examples: market potential, customers' needs and taste, promotion responses, etc., but not include distribution channels.

3) Technology Factors: All information about present and potential products and process technologies that can affect airline business.

4) Regulatory Factors: All information about regulations and/or policies that can affect the airline business operations, including information about regulatory agencies and personnel.

5) Distribution Factors: All information about distribution channels' present and their future.

6) Infrastructures/Resources Factors: All information on financial, labour and raw-material markets, and infrastructures that can affect goods and services, resources and services procured by the firm for carrying out its operations.

7) Broad Factors: All information on demographic, social, natural environment, economic and political trends

8) Other factors: Information on factors not included in any of the earlier categories that can be found at the later stage.

3 Research Methodology

This chapter covers the whole elements and processes of the research design. The section begins with the summary of research problems and related academic area integration. The research methodology and design are discussed in the latter parts as combining these aspects together: the philosophy of research, research methodology and research design, research objectives and questions, research methods, data collection and analysis.

3.1 Summary of Research Problems

According to the three main issues that initiated the research ideas; dramatically global changes, scattered foresights of future air transport, and the quickly emerging ASEAN airline market, a more systematic approach is needed. These below lists are constructed to define the research problems:

1) There is a lack of research that identifies the key change drivers of airline business in Southeast Asia. These change drivers have different contexts (Social, Demographic, Policy/Regulation, Politic, Economic etc.)

2) There is a lack of understanding in the interrelationship between these airline key change drivers.

3) Understanding emerging patterns in the underlying key change drivers enable better strategy content to be developed by airlines.

4) The current airline business environment analysis/scanning is borrowed from the existing universal one, e.g.; SWOT, PEST, and Five Competitive Forces Model. A new customised conceptual framework will fulfil the need of both airline's strategists and regulator's policy makers.

The way to solve the problems is to investigate the reality behind them, which may involve at least three different academic areas as an initial framework for research design. They are 'Strategy', 'Business Environment', and 'Airline Industry'. The strategy discipline mainly covers the strategic planning corporate and business strategy issues, and intersects airline industry area by airline strategy content issue and business ecosystem field by strategic interaction issue. The airline industry field mainly covers past & future key changes, critical factors, and industry characteristics issues. It also intersects business environment discipline by airline deregulation & liberalisation, Free Trade Area (FTA) agenda, and airline business ecosystem issues. The business environment area concerns general & task environments and market & non-market forces issues. Among these three fields, the phenomena in business ecosystem are the core integral one that has to be explored through the disciplines collectively (see Figure 3-1).
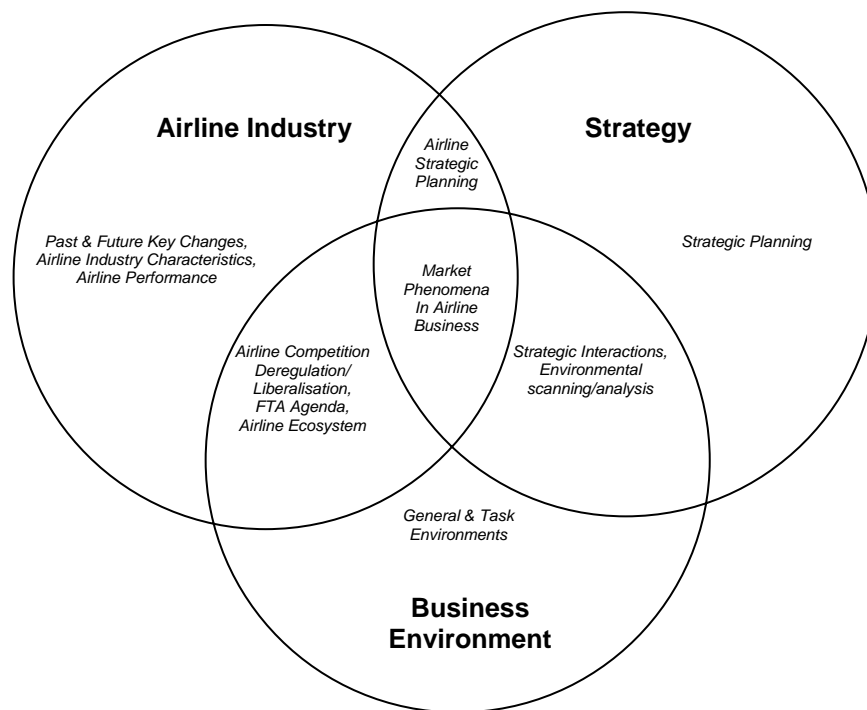
Figure 3-1 Academic areas integration in the research

Source: Author

3.2 Research Philosophy and Paradigm

3.2.1 Philosophy of the Research

This section aims to consider the main philosophical positions that underlie the designs of research. How do philosophical factors affect the overall arrangements which enable satisfactory outcomes from the research society? (Easterby-Smith et al., 2002). There are three main reasons why an understanding of philosophical issues is useful to the research design process.

1) A knowledge of philosophy can help to clarify research designs. This is not only involves considering what kind of evidence is required and how it is to be gathered and interpreted, but also how this will provide answers to the basic questions being investigated in the research.

2) A knowledge of philosophy can help the researcher to recognise which designs will work and which will not. It should also enable him or her to avoid going up too many blind alleys and should indicate the limitations of particular approaches.

3) A knowledge of philosophy can help to identify, and even create, designs that may be outside the researcher's past experience. And it may also suggest how to adapt research designs according to the constraints of different subject or knowledge structures.

There are two contrasting views of traditional research. They are 'positivism' and 'phenomenology/social constructionism'. Positivism's key idea is that the social world exists externally, and that its properties should be measured through objective method, rather than being inferred subjectively through sensation, reflection or intuition (Easterby-Smith et al., 2002). According to positivists, explanation consists of establishing casual relationships between the variables by establishing casual laws and linking them to a deductive or integrated theory (Hussey and Hussey, 1997).

The latter one is phenomenology, means the science of phenomena. A phenomenon is "a fact or occurrence that appears or is perceived, especially one of which the cause is question" (Allen, 1990, p.893). In contrast with positivism, phenomenology argue that "interrelationship of the investigator and what was being

investigated was impossible to separate, and what existed in the social and human world was what we (investigators and laymen) thought existed" (Smith, 1983, p.7). Phenomenologists believe that social reality is dependent on the mind, therefore, what is researched cannot be unaffected by the process of the research. An array of interpreting techniques which seek to describe, translate and otherwise come to terms with meaning, not the frequency of certain more or less naturally occurring phenomena in the social world. The contrasting implications of both views are shown below (Table 3-1):

	Positivism	Social Constructionism (Phenomenology)
The observer	Must be independent	Is part of what is being observed
Human interests	Should be irrelevant	Are the main drivers of science
Explanations	Must demonstrate causality	Aim to increase general understanding of the situation
Research progresses through	Hypotheses and deductions	Gathering rich data from which ideas are induced
Concepts	Need to be operationalised so that they can be measured	Should incorporate stakeholder perspectives
Units of analysis	Should be reduced to simplest terms	May include the complexity of 'whole' situations
Generalisation through	Statistical probability	Theoretical abstraction
Sampling requires	Large numbers selected randomly	Small numbers of cases chosen for specific reasons

Table 3-1 Contrasting implications of positivism and Social Constructionism (Phenomenology)
Source: (Easterby-Smith et al., 2002, p.30)

3.2.2 Research Paradigm

Khun (1962, p.viii) defines 'paradigms' as that "universally recognised scientific achievements that for a time provide model problems and solutions to a community of practitioners". The two main paradigms in academic research are discussed prior: positivism and phenomenology. To chose the most appropriate research paradigm, Hussey (1997) suggest that the researcher's beliefs about the world will be reflected in the way he/she designs his/her research, how he/she collects and analyses data. Therefore, it is important to recognise and understand the researcher personal paradigm in associated with the research problem.

When considering in which research paradigm to be placed, the original ideas and problems in the field have to be taken in to account collectively. The research

ideas are originated by the real existing situations in the airline business. The rapid and radical changes and scattered view on the future of airline business are very unpredictable and shouldn't be predicted either. The past cyclical experience shows very remarkable evidence that there is no certain point of time that the scholars can precisely predict the exact future scenes. The must is to answer*: what are the key drivers of those changes?* and *how to be effectively adaptive to those emerging changes?* In addition, to construct the business environment analysis tools requires the sufficient fact and interrelations among various players in the field. These kinds of realities cannot be explored by measuring or quantifying objectively, because they are all related to personal perceptions, hindsight-foresight approach. Undoubtedly, the most realistic position in the mentioned research problem areas is associated with a phenomenology. Therefore, the dominant research paradigm is phenomenology, but partly associated with positivism in some certain research area may be required as well. Additionally, the selected type of the research is 'Exploratory Research' which, by this type, aims to look for patterns, ideas or hypotheses, rather than testing or confirming a hypothesis. This type of research is usually conducted into a research problem when there are very few or no earlier studies to which researcher can refer for information about the issue or problem. Its focus is on gaining insights and familiarity with the subject area for more rigorous investigation at the later stage.

3.3 Research Design Concepts

Research design is the planning procedures for conducting studies so as to get the most valid finding, including collecting and analysing the required information (Hussey and Hussey, 1997, Zikmund, 2003). According to those stated research problems in four main aspects and the intention to perform research under the phenomenology paradigm, the research is conceptualised by these following constrains (Creswell, 1998):

1) The researcher requires a solid grounding in the philosophical precepts of phenomenology.
2) The participants in the study need to be carefully chosen to be individuals who have experienced the phenomenon.

3) Minimising personal experiences by the researcher.

4) The researcher needs to decide how and in what way his or her personal experiences will be introduced into the study.

Accompanying the approach to reach 'knowledge' by justification, there are two approaches: 'Foundationalism' and 'Coherentism'. The foundationalist sees the structure of knowledge like a building with all beliefs ultimately justified by secure foundations, which don't need justifying or which justify themselves. The coherentist neither agrees that such foundations can be found nor sees them as necessary. Coherentist argues that justification need not have any ultimate ground; it can be a matter of 'degree' (see Figure 3-2). A belief is well justified to the extent that it coheres well with the rest of one's beliefs. In the image of the web of beliefs, the nearer to the centre of the web a belief sits, the better justified it is; the further away the less well justified (Cardinal et al., 2004). This research prefers to assemble with the coherentism approach. The reason is that, regarding research problems and selected paradigm, to explore the real phenomenon cannot rely on only the fundamentally personal hindsight. In real situation, emerging changes, recorded statistics, people opinions and perceptions could be included and integrated to the research processes in order to provide greater evidential support and the more intimately enmeshed it is with other beliefs within the system. Concisely, it is better to sit on the web of individuals and link multi-degree information to justify the findings.
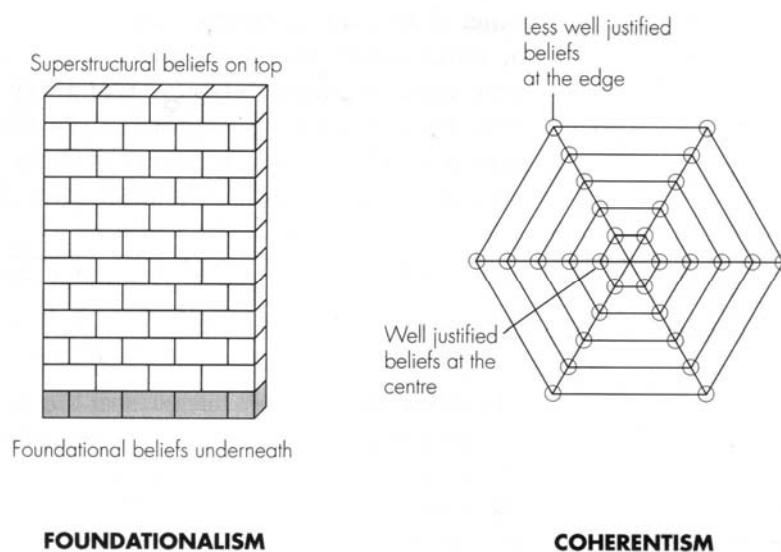
Figure 3-2 Foundationalism contrasted with coherentism

3.4 Research Questions and Objectives

3.4.1 Research Objectives (RO)

The purposes of this research are listed below:

RO1- Explore the underlying change drivers/factors of the Southeast Asian airline business.

RO2- Provide an in-depth understanding of phenomena in airline business and key change drivers' interrelationships under the ongoing deregulation and liberalisation circumstances in the Southeast Asian region.

RO3- Develop an airline business environmental analysis conceptual framework for strategic planning.

3.4.2 Research Questions (RQ)

There are three main questions, corresponded to each single research objectives, as follows:

RQ1- What are the key change drivers/factors influencing changes within the Southeast Asian airline business?

RQ1-1 - What are the external key factors influencing changes in Southeast Asian airline business?

RQ1-2 - What are the differences of the factors/drivers' importance levels?

RQ1-3- What are the common characteristics of the key change drivers?

RQ2- What are the characteristics of interrelationship of key change drivers/factors and the market phenomena in the Southeast Asian airline business under an ongoing deregulation and liberalisation circumstances?

RQ2-1 - What are the characteristics of interactive links among these factors?

RQ2-2 - What are strategic responses/actions airlines responded to or created changes in the past and present?

RQ2-3 - What are emerged changes and observed market phenomena?

RQ3- What are the new more customised conceptual frameworks for airline business environmental analysis/scanning practice?

RQ3-1 - What are the key factors that have to be taken in to account in airline business environment scanning?

RQ3-2 - What are the analytical frameworks in airline business environment analysis?

RQ3-3 - What are the expected outcome from airline business environment analysis?

3.5 Research Design and Conceptual Framework

The research is structured in three main modules. Each research module aims to achieve and answer a particular research objective and research question, for example, the first research module (RM1) is projected to be done in order to partly achieve the first and second research objective (RO1&2) and answer the first two research questions (RQ1&2). Please see Figure 3-3.
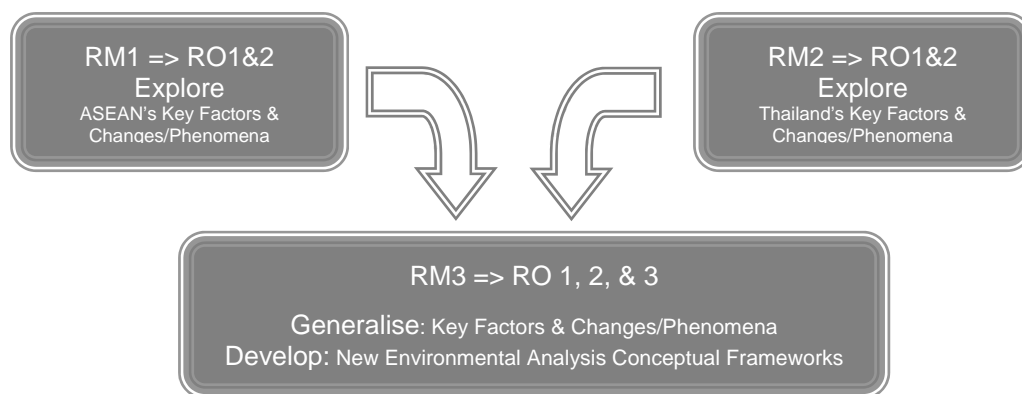
Figure 3-3 Research Design Concept
Source: Author

The first research module (RM1) purposes to explore the underlying key change drivers and their interrelationships, emerged changes and market phenomena of Southeast Asian airline business. It consists of two sub-modules which select 'hermeneutic phenomenology' as a research methodology. The first research sub-module (RM1-1) aims to explore key change drivers in the region. Relevant news and articles of all ASEAN airlines and country members selected from Air Transport Intelligence (ATI) online database are targeted as the units of analysis in this sub-module. The research method is a 'document review' analysed by 'content analysis' techniques. The second one (RM1-2) aims to explore key change drivers and their interrelationships, emerged changes and market phenomena in the field. The units of analysis are selected scholars' textbooks, academic journals, industry journalists' and interviewed executives' articles in relevant magazines, industry reports, news and articles of all ASEAN airlines and country members selected from industry magazines and Air Transport Intelligence (ATI) online database. Reviewing documents and thematic analysis are selected as the research methods and data analysis technique correspondingly.

The second research module (RM2) intends to explore key change drivers and their interrelationships and to understand, in-depth, emerged changes and market phenomena of airline business in Thailand under the deregulation and liberalisation circumstances. There are two sub-modules which are designed under mixed research paradigm. The 'case study' is used as a research methodology for both sub-modules. The first research sub-module (RM2-1) aims to explore key change drivers and their interrelationships and airline market phenomena in Thailand. The invited executives

of Thai airlines, regulator's executives and industry experts are targeted as research's units of analysis for structured interview research method. Related academic journals, industry journalists' and interviewed executives' articles in relevant magazines, industry reports, news and articles of all Thai airlines, as units of analysis, are put through document review research method. All data are conveyed to the analysis phases, which cognitive mapping is used as an analysis technique. The second research sub-module (RM2-2) expects to determine the significant and impact of key change drivers and emerged changes. A self administered questionnaire is performed by invited executives/senior staffs of Thai airlines and industry experts which are units of analysis. Descriptive analysis is employed as an appropriate data analysis technique.

The last research module (RM3) generalises all findings from the previous stages as well as develop a new conceptual framework for airline business environment analysis. The 'grounded theory' is used as a research methodology. All results and findings from the previous two main modules are analysed by constant comparative method to generalise and develop new conceptual framework for airline business environmental analysis.   See Figure 3-4 as the research conceptual framework presented.

Figure 3-4 Research Conceptual Framework

Research Paradigm: Phenomenology & mixed
Research Type: Exploratory Research

RM 1
Explore
ASEAN's Key Change Drivers & Changes

RM 2
Explore
Thailand's change drivers' interrelationships and Market Phenomena

RM 1-1: Explore Key Change Drivers

RM 1-2: Explore Emerged Changes

RM 2-1: Explore Change Drivers' interrelationships and Market Phenomena

RM 2-2: Explore significant level of Key Change Drivers and Emerged Changes

	RM 1-1	RM 1-2	RM 2-1	RM 2-2
Research Methodology:	-Hermeneutic Phenomenology (Mixed Methods)	-Hermeneutic Phenomenology (Mixed Methods)	- Case Study (Mixed Methods)	- Case Study (Mixed Methods)
Unit of Analysis:	-Relevant news of all ASEAN airlines and countries	- Scholar Texts & Journals, Relevant news of all ASEAN airlines and countries	- Thai Airlines' and Regulator' Executives, Industry experts, and relevant news of all Thai airlines	- Thai Airlines' and Regulator' Executives and Industry experts
Research Method:	-Review Documents	-Review Documents	- Interview and Review Documents	- Questionnaires
Data Analysis Technique:	-Content Analysis	-Thematic Analysis	- Cognitive Mapping/Descriptive Analysis	- Descriptive Analysis
Outcome	List of key change drivers and their importance	List of key change drivers and their interrelationships and emerged changes/market phenomena	List of key change drivers, their interrelationships and importance and emerged changes/market phenomena	Executives' perceptions toward key change drivers' and emerged changes' importance

RM 3
Generalise & Develop Airline Business Environmental Analysis Conceptual Framework

	RM 3
Research Methodology:	-Grounded Theory
Unit of Analysis:	-Outcome from RM1 and RM2
Research Method:	-Review Documents
Data Analysis Technique:	-Constant Comparative Method
Outcome	Generalised key change derivers and their characteristics, emerged changes/market phenomena, and conceptualised airline business environment analysis frameworks

Figure 3-4 Research Conceptual Framework

3.6 Research Methodology

Regarding the research objectives and questions, aiming to understand the real- world phenomenon before conceptualising the emerged theory/model is the fundamental of research design and methodology selection. Therefore, the research is designed to consist of three main research modules and each module has its own

methodology applied. In order to conceptualise the new airline business environment analysis model, Glaser and Strauss's Grounded Theory is selected as a core methodology to facilitate the research's achievement. Grounded theory analysis requires a sufficient data conveyed to its analysis processes. In addition, theorising the generalised model requires rich content and context of the targeted objects. As a result, the first two research modules are produced in order to provide the rich data required for the final research module. 'Hermeneutics' is applied for the first research module's methodology, aiming to explore the key change drivers and emerged changes in the Southeast Asia airline business. For the second research module, 'Case study' methodology is deployed to explore the broader and deeper understanding of selected case study, Thailand's airline business. The followings discuss about each selected methodology's overview.

3.6.1 Hermeneutic Phenomenology

Phenomenologist is committed to "understanding social phenomena from the actor's own perceptive. He or she examines how the world is experienced. The important reality is what people perceive it to be" (Taylor and Bogdan, 1984, p.2). Phenomenology is a research approach which attempts to understand the hidden meaning and essence of an object/experience/phenomenon. "Essences are objects that do not necessarily exist in time and space like facts do, but can be known through essential or imaginative intuition involving interaction between researcher and respondents or between researcher and texts" (Grbich, 2007, p.84).

Edmund Husserl introduced the classical phenomenology as it is 'the science of the essence of consciousness' (Husserl, 1982, p.33). It was assumed that humans exist in the world as wakeful consciousnesses with little awareness of each other, separated by processes of socialisation and other social constructions. To understand the person experiences through direct (e.g.: interview, observation, and/or participation)/indirect (by texts which represent the recorded experiences of person) interaction is the means by which an established world of objects (phenomena) or an established way of seeing brought into being (existence).   These constructed ways of being, could be identified and suspended, allowing a refinement of consciousness to

occur and enabling people to access the essential aspects of experiences in order to solidify one's knowledge (Hussey and Hussey, 1997).

While phenomenology is primary oriented toward the immediate phenomena of human experience, 'hermeneutics' is more context directed. Hermeneutics often tries to go beyond the observable in order to read between the lines (Odman, 1985). Phenomenologist would try to register all cues in an effort to 'understand' the object. Comparatively, Hermeneutic researcher would go step further and try to 'interpret' those immediate events also in the light of previous events, private experience, and whatever else they find pertinent to the situation under investigation (Gummesson, 2000).

Grbich (2007) describes various forms of phenomenology have developed over time. Three of the major streams are listed as follows:

1) Classical/realistic/transcendental phenomenology
2) Existential phenomenology and
3) Hermeneutic phenomenology

As a result of these three types' evaluation, the third one is selected as it could be the most appropriate form for the first research module. The reason is that 'hermeneutic phenomenology' investigates the 'interpretive' structures of experiences of texts (Moustakas, 1994). The interpretive focused in hermeneutics can occur either from the outside (from the perspectives of the objective researcher) or from the inside (from a focus on interaction between the interpreter and the text. The integration of part and whole in terms of overall interpretation is essential. Real-world predominates and existence is the hidden aspect which becomes evident via the activities of individuals (Moustakas, 1994, Manen, 1990).

The hermeneutic phenomenology facilitates clarifying the essences of texts which is to be explored, described, communicated and interpreted contextually. The mentioned units of analysis (e.g.: texts in relevant industry news, articles in academic journal and industry magazines of all ASEAN airlines and member countries) are sources of data collection. Reviewing documents is performed as a research method of two research sub-modules (RM 1-1 and RM 1-2). Two selected types of data

analysis technique, content analysis and thematic analysis, are discussed in the later part of this chapter.

3.6.2 Case Study

Yin (2003, p.13) introduces the technical definition of 'case study' begins with the scope as follows:

1) A case study is an empirical inquiry that
   - Investigates a contemporary phenomenon within its real-life context, especially when
   - The boundaries between phenomenon and context are not clearly evident
2) The case study inquiry
   - Copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result.
   - Relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
   - Benefits from the prior development of theoretical propositions to guide data collection and analysis.

Case studies are widely used in business-related subjects. One of important advantage with case study research is it allows the researcher to develop a 'holistic view' of the objects. The various sources of collected data in the case study method enable the researcher to study many different aspects, examine them in relation to each other, view the process within its total environment, and retain meaningful characteristics of real-life events. In addition, case study can be based on any mix of quantitative and qualitative evidence (Yin, 2003). Regarding the holistic view, the whole is not identical to the sum of its parts, like reductionism approach (Capra, 1982). The whole can be understood only by treating it as the central object of study. Such an approach is a time-consuming job therefore it is generally not possible to

carry out more than one or a very limited number of in-depth case studies in a single research project (Gummesson, 2000).

In order to design the research by employing case study methods, four types of case study have to be assessed: Type 1- single-case (holistic) designs, Type 2- single-case (embedded) designs, Type 3- multiple-case (embedded) designs, and Type 4- multiple-case (holistic) designs. Figure 3-5 shows 2x2 matrix represents four different types of case study research design. The dotted lines indicate the boundaries between the case and its context.
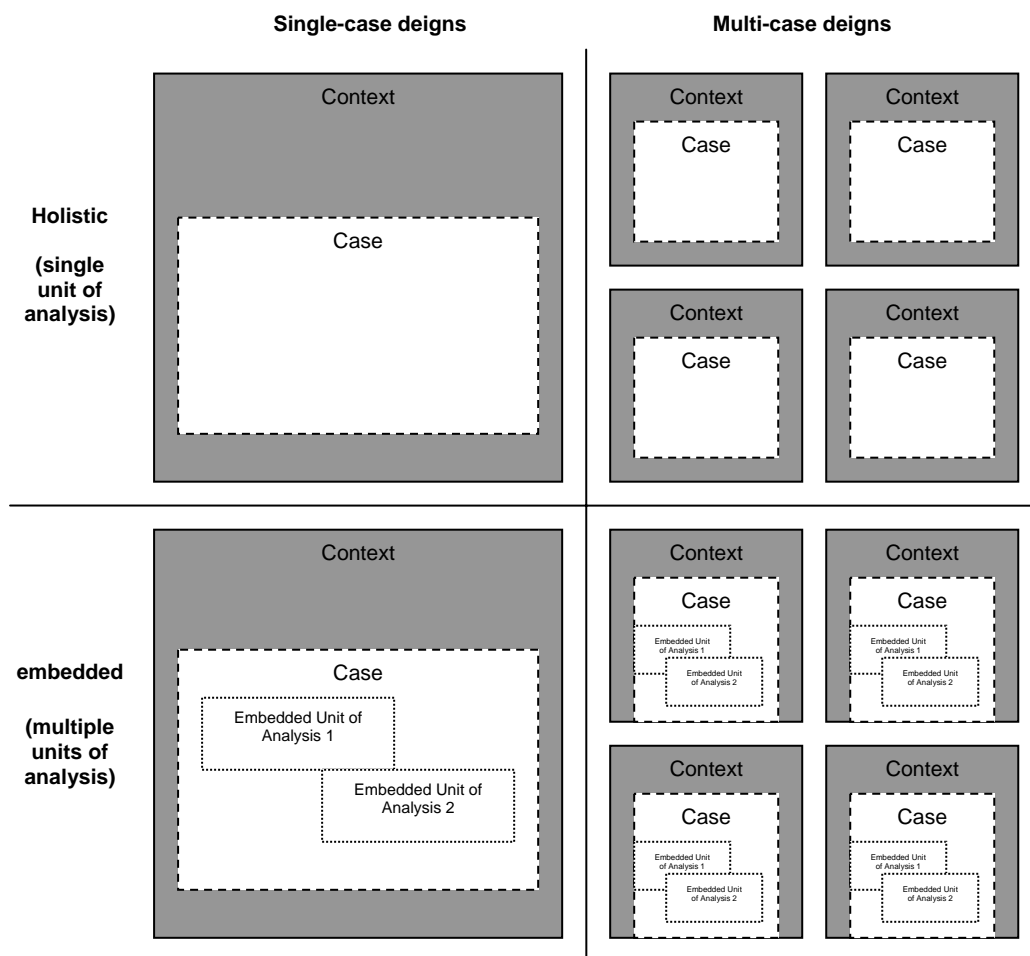
Figure 3-5 Basic Types of Designs for Case Studies
Source: Modify from Yin (2003), p.40

For the research module 2 (RM 2) targeting to understand, in-depth, the phenomena of airline business in Thailand under the deregulation and liberalisation circumstances, research design Type 2 (single-case, embedded, designs) is selected because it is an appropriate design under the research circumstances and being

representative case as one of five given rationales for choosing single-case study: critical case, unique case, representative or typical case, revelatory case, and longitudinal case. The airline business in Thailand is selected as a whole single case to represent the other ASEAN member countries and also main unit of analysis. The smallest units are different group of individual and text in selected publications. The intermediary units are all operating Thai airlines. At each level of research processes, different data collection techniques are applied, (e.g.: interview, document review, and questionnaire), and the analysis ranging from causal/cognitive mapping to survey descriptive analysis, of which more details are discussed in the later part. In addition, Yin (2003) recommends to use multiple sources of evidence as data triangulation, which is one of four types of triangulation as follows: data triangulation, investigator triangulation, theory triangulation, and methodological triangulation (Patton, 1987). Thus, any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on many different sources of data and information.

3.6.3 Mixed Methods

"A mixed methods study involves the collection or analysis of both quantitative and/or qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the process of research (Creswell et al., 2008)." Because all methods of data collection have their own limitations, the use of multiple methods can neutralise or cancel out some of the disadvantages of certain methods (Jick, 1979). Therefore, there is wide consensus that mixing different types of methods can strengthen a study. In addition, social phenomena are so complex, different kinds of methods are needed to best understand these complexities (Greene and Caracelli, 1997).

Creswell, Clark et al. (2008) introduce six types of mixed research designs which build on the four decision criteria: implementation, priority, integration, and theoretical perspective. Each type of design has different characteristics, strength, and weakness. All six designs are listed as follows:

1) Sequential explanatory design

2) Sequential exploratory design

3) Sequential transformative design

4) Concurrent triangulation/merged design

5) Concurrent nested design

6) Concurrent transformative design

Though the research module 1 and 2 (RM 1 and RM 2), which each consists of two sub-modules (RM 1-2 & 1-2 RM 2-1 & 2-2), is mainly designed under hermeneutic phenomenology and case study methodology respectively, mixed methods is also adopted at a data collection and analysis stages in order to explore such complex phenomena of ASEAN & Thai airline business and gain better understanding about the objects. The selected mixed method design is 'concurrent triangulation/merged design'. Theoretically, this type of design is selected when the researcher uses two different methods in an attempt to confirm, cross-validate, or corroborate finding within a single study (Greene et al., 1989, Morgan, 1998, Stecker et al., 1992).

This design generally uses separate quantitative and qualitative methods as a means to offset the weakness lies within one method with the strengths of the other method. Each method data collection is concurrent, occurring during one stage of the study. There would be no priority for the two methods, but in practical application, the priority may be allocated to the preferred approach. The analysis usually integrates the results of the two types during the interpretation stage. The interpretation may state the convergence of the results as to strengthen the knowledge claims of the study (Creswell et al., 2008)
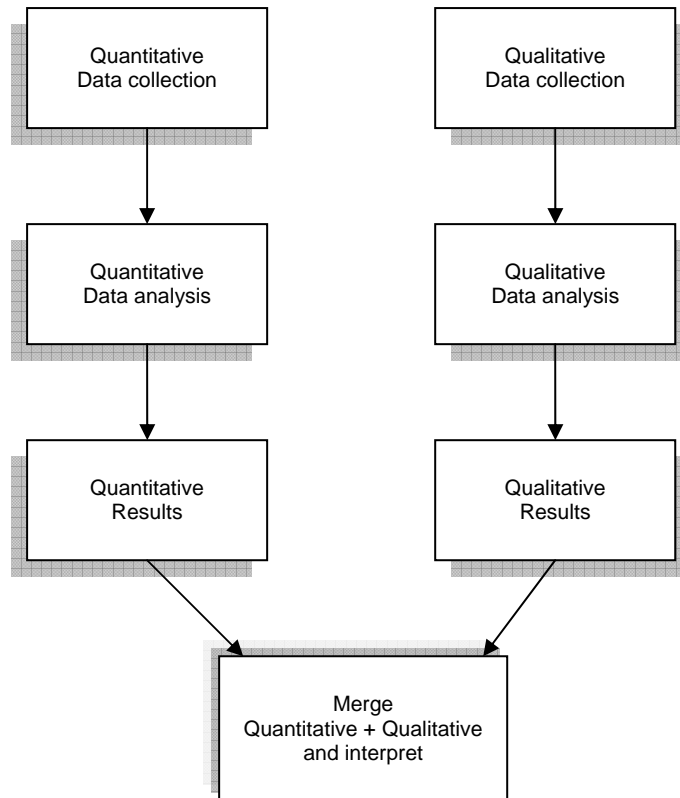
Figure 3-6 Visual diagram of a concurrent triangulation mixed method design with merged results
Source: Modify from Luzzo (2008), p.380

Regarding the mixed method applied to both research module 1 & 2 (RM 1 & RM2), qualitative and quantitative methods are employed. For RM 1, its first sub-module uses content analysis as quantitative method, while, the second one applies thematic analysis as qualitative method. For RM 2, its first sub-module is designed to use qualitative method by applying interview and document review and causal/cognitive mapping as data analysis technique, whereas, the second sub-module uses questionnaire survey as quantitative data collection and descriptive statistic analysis as data analysis technique. The results of all research sub-modules are merged together to *corroborate* the findings rather than cross-validate or confirm their correlations (see Figure 3-7). The details of 'Data Analysis' are discussed in the later part (section 3.8).
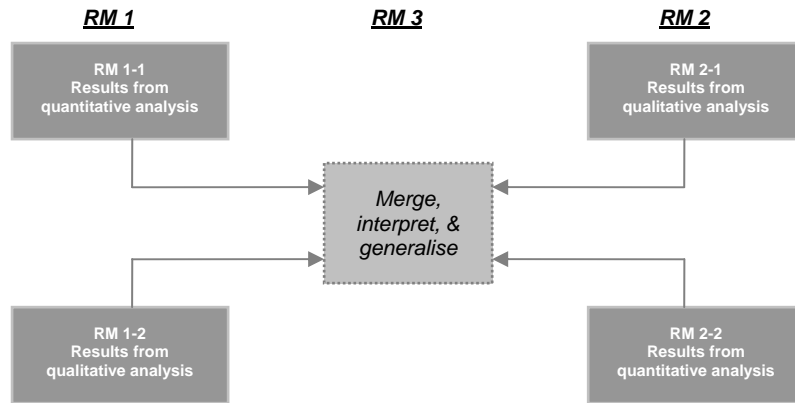
Figure 3-7 Applications of 'Mixed Method' in the research design

3.6.4 Grounded Theory

Existing deductive theory testing research methods do not perfectly capture the complexity of the context of management study. There is need for more theory grounded and contingency-based research rather than solely deductive approaches (Perry and Coote, 1994). One of the most useful and developed inductive research methods is that of grounded theory (Glaser and Strauss, 1967). Regarding any qualitative research article in the domain of management and organisation studies, the chances are very high that a citation to 'Glaser and Strauss (1967)' will be found (Locke, 2001). The methodology has been widely used in management and organisation research (Ancona, 1990, Leonard and McAdam, 2002, Schwarz and Nandhakumar, 2002). This methodology allows researcher to develop a theoretical interpretation of a studied phenomenon, while simultaneously grounding such interpretations in empirical data (Martin and Turner, 1986).

Grounded theory's distinctive features, comparing to other qualitative methodology, are its commitment to research and 'discovery' through direct contact with the social world studied coupled with a rejection of a prior theorising. Such theories have the effect of obstructing the development of theory by coming between researchers and the subjects of their study (Locke, 2001). The joint coding and analysis of data offers a logic for composing conceptual elements that hinges on their articulation through close reading, comparison, and attendant conceptualisation of data (Glaser, 1978). Glaser (1992, p.71) indicates that the researcher "should simply

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code and analyze categories and properties with theoretical codes which will emerge and generate their complex theory of a complex world".

Regarding the research module 3 (RM3)'s objectives, using abstract concepts to describe and analyse a series of general phenomena and based on practical experience, which is grounded theory's features, makes the methodology attractive to theory/model forming from airline business environment studied. Theory/model building by grounded theory capitalises on the rich data from the research module 1's and 2's outcomes, which are the products from various sources and size of units of analysis and mixed-methods of data collection and analysis.

3.7 Research Methods

In choosing appropriate research methods, research questions and the unit of analysis are key factors influencing such decision. The number of units of analysis ranges from 30 airlines' top executives and industry experts to more than 1,900 of industry news and articles. The sufficient number of people and news/articles from various sources would allow meaningful analysis. Thus, the selection of proper means used to collect data is very crucial. These means have to be capable to facilitate collecting completed data from the right sources. Three methods are used as means for such operations: document review, structured interview, and self-administered questionnaire. This part discusses the later two methods in more details.

3.7.1 Interview

The 'interview' is the primary data collection technique for gathering data in qualitative research (Patton, 1990, Mason, 1996, Rubin and Rubin, 1995, Silverman, 1997). There are three issues have to be assessed in order to design the proper feature of interview as a research data collection technique. They are number of participant, level of the structure, and mode of communication. The first one is the number of people involved during the interview. An interview can be conducted individually (individual depth interview, IDI) or in group. Considering research objectives and

units of analysis in the case study research module (RM2), the research aims to explore airline executives' experiences. Time-pressed participants as they are top executives of airlines and potential of conflict or discomfort that may be generated by group interview (Cooper and Schindler, 2006) are main reasons to choose *individual depth interview* (IDI) as the research data collection.

The second concerning issue is level of the interview structure. There are three levels interview could be structured: unstructured, semistructured, and structured interviews. Cooper and Schindler (2006) indicate the unstructured and semistructured interviews used in qualitative research are distinct from the structured one in several ways as follows:

- Rely on developing a dialog between interviewer and participant
- Require more interviewer creativity
- Use the skill of the interviewer to extract more and a greater variety of data
- Use interviewer experience and skill to achieve greater clarity and elaboration of answers.

The research module 2 (RM2) purpose to gather direct experience and perceptions of top executive operate airline in the market toward changes and business environment. Thus, '*structured interview with open-ended questions*' is selected as this level permits more direct comparability of responses and question variability has been eliminated. While open-ended question still allows further comments, ideas, perceptions are liberally emerged. In addition, using structured interview, of which questions are defined and adjusted based on the findings and interpretations from previous results, leads to develop general concepts or theories as being purpose of deploying grounded theory methodology (Mariampolski, 2001, Carson et al., 2001, Corbin and Strauss, 2008).

The last issue has to be evaluated is mode of communication. Face-to-face and phone interviews are two modes of communication mentioned. Both methods have their own advantage and disadvantage. Phone interview offers the opportunity to conduct more interviews within the same time frame and draw participants from

wider geographic area, including fewer transportation expenses to move interviewer and participant to the same site. Whereas, face-to-face offers obvious benefit of being able to observe and record nonverbal a well as verbal behaviour (Cooper and Schindler, 2006). In addition, it provides flexibility in particular with respect to clarifying responses, better response rate than questionnaires and phone interview, establishment of rapport, and more complete responses (Burns, 2000). Therefore, face-to-face interview is selected as data collection technique for case study research module.

Interview questions are designed to elicit purely qualitative data. There are 8 questions asking about key change drivers and significant change occurred in the market within past 5 years. The questions are mixed of both specific and broad issues needed to be answered. In addition, the interview also contains question which asks participant to foresight the future scene of airline business in the next 5-10 year. This could reconfirm influences and interrelationships of the already mentioned past changes and key change drivers.

3.7.2 Questionnaire

Questionnaire survey is used in the research Sub-Module 2-2 (RM 2-2) in order to find mainly the importance and impact of each airline key change driver and emerged change. Three methods of questionnaire survey are assessed: Self-administered survey, telephone survey, and survey via personal interview. The *self-administered questionnaire* survey is picked as its advantages benefit the research objectives' achievement, whereas, its disadvantages do not much effect the study. The advantages and disadvantages are discussed below (Cooper and Schindler, 2006):

Advantages:

- Allows contact with otherwise inaccessible participants
- Incentives may be used to increase response rate
- Often lowest-cost option
- Expanded geographic coverage without increase in costs

- Requires minimal staff
- Allows participants time to think about questions

Disadvantages:

- No interviewer intervention available for probing or explanation.
- Cannot be long and complex
- Often participants returning survey represent extremes of the population skewed responses.

The questionnaire's questions are constructed into three main parts: Administrative, Classification, and Target parts. Administrative questions identify the participant and condition. This part also includes the introduction and instruction for questionnaire's completion and administration. Classification questions cover participant's sociological-demographic variables, such as position, educational background, work experiences, and contact address. This part is 'Part I: Biography' of the research questionnaire. Target questions consist of the investigative questions of the study. They are three main parts which are Part II: Airline key changes, Part III: Airline business environment factors, and Part IV: Examples.

'Part II: Airline key changes' asks participant to assign 0 or 1-5 Likert scale, represents the impact level of each key changes, of 25 rating questions and 3 free response questions. 'Part III: Airline business environment factor' asks participant to assign 0 or 1-5 Likert scale, represents the importance and effort level of each environmental factor, of 25 rating questions and 2 free response questions. The last part, Part IV: Examples, provides three free response questions of two issues for the participant to share his/her ideas toward the greatest and poorest airlines in ASEAN.

3.8 Data Analysis

Data analysis is one of the most important stages in performing research project as its output indicates research objectives' achievement. In qualitative/inductive research, under phenomenology paradigm, theory is built not

tested liked deductive research approach. Deductive research starts with existing theories and concepts and formulates hypotheses that are subsequently tested, in contrast, inductive research starts with real-world data, and categorise, concepts, patterns, models, and eventually, theories emerge from this input (Gummesson, 2000). Most of the research's collected data are qualitative one and need specific means to turn them to expected output of the research. Understanding of airline business environment's phenomenon and conceptualising its theory/model are main objectives of the study. Four forms of data analysis are selected to perform such function.

3.8.1 Content Analysis

Berelson (1952, p.18) originally defined content analysis as "a research technique for the objective, systematic and quantitative description of the manifest content of communication". Content analysis is a systematic coding and categorising approach which help researcher to unobtrusively explore large amount of textual information in order to ascertain the trends and patterns of words used, their frequency, their relationships and the structure, and discourses of communication (Grbich, 2007). The widest use of content analysis is found in the social sciences and humanities, although legal, political, and commercial applications are rising in number as well (Krippendorff, 2004). Content analysis is used in a variety of categories. Janis (1965, p.57) provides its classifications as follows:

1) Pragmatical content analysis: procedures which classify signs according to their probable causes or effects.
2) Semantical content analysis: procedures which classify signs according to their meanings
    a) Designations analysis: provides the frequency with which certain objects (person, things, groups, or concepts) are referred to, that is, roughly speaking, subject-matter analysis.
    b) Attribution analysis: provides the frequency with which certain characterisations are referred to

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c) Assertions analysis: provides the frequency with which certain objects are characterised in a particular way, that is, roughly speaking, thematic analysis.

3) Sign-vehicle analysis: procedures which classify content according to the psychophysical properties of the signs.

Three principal purposes of content analysis are clarified as below (Holsti, 1969):

1) To describe manifest characteristics of communication-that is, asking what, how, and to whom something is said

2) To make inferences as to the antecedents of communication-that is, asking why something is said

3) To make inferences as to the consequences of communication-that is, asking with what effects something is said

As the repetition of words in content analysis is assumed to indicate their importance level in the document, enumerative information is preferred in terms of gathering and assessing data. The core analysis process is searching the 'key words in context', 'key words out of context', 'word frequency', 'space measurement', and 'time counts' (Grbich, 2007). In research sub-module 2-1 (RM2-1), 'word frequency' is selected as a means and used to extract the airline key changes drivers form the cited news (units of analysis) by counting frequency of the relevant words.

In addition, to ensure reliability of findings, researcher is suggested to invite another coder to perform coding and counting sampled materials, this method is called 'Inter-coder reliability' (Grbich, 2007). The percentage of agreement between researcher and another coder is calculated to find reliability by the use of Cohen's kappa (Cohen, 1960), which follows this below formula:

$$\kappa = \frac{\Pr(a) - \Pr(e)}{1 - \Pr(e)}$$

Equation 1 Inter-coder reliability formula

where Pr(a) is the relative observed agreement among two coders and Pr(e) is the probability that agreement is due to chance. The criterion to evaluate the inter-coder reliability is as follows:

kappa = 1.00   indicates   complete agreement

kappa = 0.00   indicates   poor agreement

kappa = 0.21-0.41   indicates   fair in agreement and

kappa = 0.81-1.00   indicates   high in agreement

3.8.2 Thematic Analysis

Thematic analysis is generally used in qualitative research and occurs when all the data are in. It is a process of segmentation, categorisation and relinking of aspects of the database prior to the final interpretation. Thematic analysis involves a focus on repeated words or phases, case studies or evidence of answers to the research questions. Themes may come from previous relevant research which have been reviewed, from myths/evidence within the area being studied, from researcher's gut feeling, as well as from views of those being observed or interviewed (Grbich, 2007).

The process of thematic analysis is to reduce the data into meaningful grouping which are easier to manage by a 'block and file' approach, by 'conceptual mapping' or by a combination of the two. *Block and file approach* can be done by make data be underlined, italicised or colour coded to keep them within the context of the overall focused data, or to maintain cases as separate entities. Then, the segments are grouped and placed in a table with heading added to clarify and categorise the contents of each group. While, *conceptual mapping* constructs blocks of factor/concept/category and links them together as their interrelationships' patterns found from investigation.

Grbich (2007) discusses advantage and disadvantage of both approaches as follows: The advantage of the block and file approach is that large chuck of data can be kept; the disadvantage is that there are so many columns of data, the file can

become unwieldy. The advantage of the conceptual mapping approach is that researcher end up with a neat and brief summary of the issues which are emerging; the disadvantage is that these brief words and phrases tend to oversimplify and decontextualise issues and researcher may need to go back to get the fuller story from database.

3.8.3 Cognitive Mapping/Causal Mapping/Diagrams

The process of getting respondents' responses mapped is known as cognitive mapping/causal mapping/diagrams. The means help to raise the researchers' thinking out of the level of facts, to organise data, to keep record of their concepts and the relationships between them, and to integrate their ideas (Corbin and Strauss, 2008). Miles and Huberman (1994, p.22) clarify "conceptual framework are best done graphically, rather than in text. Having to get the entire framework on a single page obliges you to specify the bins that hold the discrete phenomena, to map likely relationships, to divide the variables that are conceptually or functionally distinct, and to work all then information at once."

In this research, computer software, named 'Decision Explorer', is used to facilitate the cognitive mapping analysis of interview data. With large maps and a lot of data, Decision Explorer's features like multiple views and analysis facilities could help the researcher to consolidate understanding and exploring the emergent properties of the map (Banixa-Software, 2002). However, the analysis technique usage is extended to those particular reviewed documents in the research sub-module 1-2 (RM 1-2) as well.

Analysis of Cognitive/Causal Mapping (Banixa-Software, 2002, p27):

Domain Analysis- domain (density) analysis looks at the connectivity of concepts. The domain analysis analyses the links immediately around each concept, to one level of links. Domain analysis is used to identify 'busy' concepts in a model. Concepts which have either a high number of links going into them (highly

elaborated) or have a high number of links going out of them (large number of consequences). These tend to be key issues in a model.

Central Analysis- central (centrality) analysis goes further than domain analysis in that is brings in the winder context of the concepts. It looks at their connectivity to specified level of linkages beyond the 'central' concepts. It is rather like looking at the ripples in a pond and the influence or effect of a concept in its wider setting. It uses scoring system with reduced levels of weighting according to how far the assessed concept is from the scored concept. Concepts next to the scored concept are weighted with a factor of 1, those next the first tier are weighted with a factor of 0.5, the next level out with a factor of 0.33 and so on up to seven links away.

Tail Analysis- tails are concepts which have no supporting explanation. In general, tails are interesting because they represent root causes, the deepest levels recorded on the cognitive mapping diagrams. The analysis focuses on a ratio of the number of tail recorded and the total number of concept's occurrences.

3.8.4 Constant Comparative Method

The Discovery of Grounded Theory expresses how researcher assign meaning to the observations expressed in their data documents in terms of the 'constant comparative method'. The constant comparative method is used in the research model 3 (RM 3) to facilitate data analysis. The method is conceptualised and described in terms of four stages which span the entire study, starting from assigning meaning (coding) to incidents of recorded data to refining and writing up the completed theoretical framework (Locke, 2001). The four stages described are: (1) comparing incidents applicable to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory (Glaser and Strauss, 1967, p.105-113).

1) *Comparing incidents applicable to each category*: the process starts by coding each incident in recorded data into as many categories of analysis as possible, as categories emerge or as data emerge that fit an existing category. While coding an incident for a

category, compare it with the previous incidents in the same and different groups coded in the same category. By this constant comparison of the incidents very soon starts to generate theoretical properties of the category. After coding for a category perhaps three or four times, the analyst will find conflicts in the emphases of thinking. At this point, the second rule is applied by stop coding and record a memo on the ideas. This rule is designed to tap the initial freshness of the analyst's theoretical notions and to relieve the conflicts.

2) *Integrating categories and their properties*: As the coding continues, the constant comparative units change from comparison of incident with incident to comparison of incident with properties of the category that resulted from initial comparisons of incidents. Thus the theory is being developed, as different categories and their properties tent to become integrated through constant comparisons that force the analyst to make some related theoretical sense of each comparison.

3) *Delimiting the theory*: Delimiting occurs at two levels: the theory and the categories. First, the theory solidifies, in the sense that major modifications become fewer and fewer as the analyst compares the next incidents of a category to its properties. Later modifications are mainly on the order of clarifying the logic, taking out non-relevant properties, integrating elaborating details of properties into the major outline of interrelated categories. At the same time, the analyst is able to perform data reduction, as he/she may discover underlying uniformities in the original set of categories or their properties, and can then formulate the theory with smaller set of higher level concepts, which means its terminology and text are delimited. The second level is a reduction in the original list of categories for coding. As the theory grows, become reduced, these allow the analyst to cut down the original list of categories for collecting and coding data, according to the present boundaries of the theory. When no new dimensions of categories are indicated by further instances of them in the data,

development of that conceptual category could stop. This is the point of 'theoretical saturation'.

4) *Writing theory*: At this final stage, the analyst posses coded data, a series of memos, and a theory. The discussions in memos provide the content behind the categories, which become the major themes of the theory and also way to frame the written presentation of the theory.

3.9 Evaluation of Research Quality

There are a lot of debates about how to evaluate the quality in qualitative research. Qualitative research is both a 'scientific' (Morse, 1999) as well as a 'creative' and 'artistic' endeavour, and that 'quality' of the final product/findings will reflect both these aspects (2002, Seale, 1999, Corbin and Strauss, 2008). Validity may be the most frequent term used to define research quality evaluation. Hammersley (1987, p.67) states that a research may be considered valid if "it represents accurately those features of the phenomena, that it is intended to describe, explain, or theorize". However, Corbin (2008) argues that using the terms 'validity' and 'reliability' when discussing qualitative research may be not appropriate. He states that "these terms carry with them too many quantitative implications. Somehow the word 'truth' also bothers me in the sense that it seems that no matter how you define 'truth', the term carries with it a certain degree of dogmatism (p.301)". He prefers using the term 'credibility' when talking about qualitative research (Glaser and Strauss, 1967, Lincoln and Guba, 1985). The term 'credibility' indicates that findings are trustworthy and believable. They reflect participants', researchers', and readers' experiences with a phenomenon (Corbin and Strauss, 2008).

In addition, Glaser and Strauss (1967) also state about 'applicability' that any research findings with claims to quality should be 'applicable'. The criteria for applicability include four highly interrelated properties. "The first requisite property is that the theory must closely '*fit*' the substantive are in which it will be used. Second, it must be readily '*understandable*' by laymen concerned with this area. Third, it must be sufficiently '*general*' to be applicable to a multimode of diverse daily situations

within the substantive area, not to just a specific type of situation. Fourth, it must allow the user partial 'control' over the structure and process of daily situations as they change through time (p.237)".

Making judgement about the quality of qualitative research is difficult because so much depends upon who is doing the research, its purpose, and the method that is used. Corbin and Strauss (2008) introduce ten criteria for judging quality of grounded theory research, whereas, note that these criteria must not be allied to all qualitative research methods. These ten criteria are drawn from multiple sources and described as follows (p.305-307):

1) *Fit*: the findings should resonate/fit with the experience of both the professionals for whom the research was intended and the participants who took part in the study. Participants could see themselves in the story even if not every detail applies to them.

2) *Applicability*: or usefulness of findings. The findings should offer new explanations or insights. They could be used to develop policy, change practice, and add to the knowledge base of a profession.

3) *Concepts*: Concepts are necessary for developing common understandings and for professional to talk among themselves, therefore one would expect that findings would be organised around concepts/themes.

4) *Contextualization of concepts*: Findings devoid of context are incomplete. With context, the reader of research could fully understand why events occurred, why certain meanings and not others are ascribed to events, or why experiences were one way and not another.

5) *Logic*: There should be a logical flow of ideas. Do the findings 'make sense'? Or are the gaps or missing links in the logic that leave the reader confused and with sense that something us not quite right" The methodological decisions should be made clear so that the reader can judge their appropriateness for gathering data and doing analysis.

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6) *Depth*: While concepts provide a common language for discussion and give organizational structure to the findings, it is the descriptive details that add the richness and variation and lift the findings out of the realm of the ordinary.

7) *Variation*: Has variation been built into the findings, meaning are there examples of cases that don't fit the pattern or that show differences along certain dimensions or properties? By including variation, the researcher is demonstrating the complexity of human life.

8) *Creativity*: The findings should be presented in a creative and innovative manner. The research should say something new, not put old ideas together in new ways.

9) *Sensitivity*: The researcher should demonstrate sensitivity to the participants and to the data. Were the questions driving the data collection arrived at through analysis, or were concepts and questions generated before the data were collected. The latter may or may not be okay, depending upon how careful the researcher was to put aside bias and honestly seek to find contradictions in the data to researcher's assumptions

10) *Evidence of memos*: Since a researcher cannot possibly recall all of the insights, questions, and depth of thinking that goes on during analysis, memos are among the most necessary of all procedures. Thus, there should be some evidence or discussion of memos in the final report.

Regarding Corbin and Strauss's ten criteria for evaluating research quality, these ten criteria are used to construct the framework of doing the research, from the first process to the final writing up the report. At the final stage of the report, the research quality is discussed and its evaluation is presented.

3.10 General Conclusions

The research methodology chapter covers main contents about the research design, process, and quality assessment. Three main research modules are constructed under the phenomenology paradigm. The main research objectives are to explore and describe the underlying ASEAN airline business phenomena. 'Hermeneutics Phenomenology', 'Case Study', and 'Grounded Theory' are selected as research methodologies for research module 1, 2 and 3 respectively. The selected units of analysis are from both primary and secondary data, varying from the published journal, industry news, official statistics, top executives and industry experts. Three types of research method are employed; documents review, interview, and questionnaire. Finally, the five means of data analysis are used to analyse collected data of each research module. They are 'content analysis', 'thematic analysis', 'cognitive mapping analysis', 'descriptive analysis', and 'constant comparative method'.

By theses various methods and sources of collected data, they could help achieving the research objectives with higher quality and meaningful interpretations. 'Mixed research method' is also applied as it facilitates research collaboration. In addition, ten factors are used as criteria for assessing the final research quality. The next chapter presents the results from document review as part of research sub-module 1-2, which provides the understanding of ASEAN airline business context.

4 Exploration of ASEAN Airline Business Environment

This chapter presents the results from the documentary review regarding ASEAN airline business environment. These include three main aspects; political and economic and air transport industry overview. The chapter is aimed to provide broad understanding toward the context of each ASEAN member country's airline business. The reason to support production of this part is, regarding the hermeneutics phenomenology methodology, the object's context could help the researcher to read between the lines of the object, to 'interpret' those events in the light of previous events, private experience, and whatever else they find pertinent to the situation under investigation (Gummesson, 2000). Therefore, the ASEAN airline business environment/context should be explored in order to provide understandings and interpret the context of the targeted phenomena. All collected data and findings from this chapter will be merged and interpreted with those from the next two chapters by constant comparative analysis at the last research stage.

4.1 ASEAN Community in the Differences

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. ASEAN comprises Brunei Darussalam, Burma (Myanmar), Cambodia, Indonesia, the Lao People's Democratic Republic ('Laos'), Malaysia, the Philippines, Singapore, Thailand and Vietnam. It is a collection of ten diverse countries fragmented by economies and different legal systems, industrial and political structures, country's land and population sizes, and inadequate connections between national infrastructures. ASEAN depends largely on extra-regional economies for export markets, supply of imports, investment, capital, knowledge and technologies. Regional economic integration itself would drag the attraction of ASEAN to external buyers, suppliers and investors, and hence the significant improvement of the productivity and competitiveness of regional industries and sectors.

Country	Total land area (km²)	Total population ('000)	Population density (person/km²)	Annual population growth (%)	Gross Domestic Product at current price (US$ mil.)	Gross domestic product per capita at current prices (US$)
Brunei Darussalam	5,765	396	69	3.5	12,317.0	31,076.1
Cambodia	181,035	14,475	80	2.2	8,662.3	598.4
Indonesia	1,890,754	224,905	119	1.2	431,717.7	1,919.6
Lao PDR	236,800	5,608	24	2.8	4,128.1	736.1
Malaysia	330,252	27,174	82	2.0	186,960.7	6,880.2
Myanmar	676,577	58,605	87	2.3	12,632.7	215.6
Philippines	300,000	88,875	296	2.0	146,894.8	1,652.8
Singapore	704	4,589	6,518	2.3	161,546.6	35,206.1
Thailand	513,120	65,694	128	4.6	245,701.9	3,740.1
Viet Nam	329,315	85,205	259	1.2	71,292.1	836.7
ASEAN	**4,464,322**	**575,525**	**129**	**1.9**	**1,281,853.9**	**2,227.3**
*ASEAN 5**	*3,034,830*	*411,237*	*(avg.)1,429*	*(avg.)2.4*	*1,172,822*	*2,851.9*
*BCLMV**	*1,429,492*	*164,289*	*(avg.)104*	*(avg.)2.4*	*109,032*	*663.7*

* ASEAN 5 consists of Indonesia, Malaysia, Philippines, Singapore and Thailand, while BCLMV comprises of Brunei Darussalam, Cambodia, Lao PDR, Myanmar, and Viet Nam

Table 4-1 Selected key ASEAN indicators in 2007

Sources: (ASEAN-Statistics, 2008)and Author's calculation

Value in US$ million; people in '000 arrivals

Country	Merchandise trade		Foreign direct investment inflow		Tourist arrivals	
	Exports	Imports	Intra-ASEAN	Extra-ASEAN	Intra-ASEAN	Extra-ASEAN
Brunei Darussalam	7,619.4	1,488.9	9.7	423.8	68.7	89.4
Cambodia	3,514.4	2,923.0	155.5	327.7	328.5	1,371.6
Indonesia	100,798.6	61,065.5	1,524.5	4,031.7	2,307.1	2,564.2
Lao PDR	402.7	587.5	10.6	176.8	891.8	323.3
Malaysia	157,226.9	128,316.1	467.8	5,591.9	13,856.6	4,615.1
Myanmar	3,514.8	2,115.5	27.8	115.2	56.8	596.1
Philippines	47,410.1	51,773.7	(95.6)	2,440.6	202.9	2,485.1
Singapore	271,607.9	238,482.0	1,137.7	22,917.7	3,555.9	6,195.7
Thailand	121,579.5	127,108.8	2,822.1	7,933.9	3,556.4	10,265.7
Viet Nam	37,033.7	40,236.8	181.9	2,178.1	571.9	3,011.6
ASEAN	**750,708.0**	**654,097.8**	**6,242.1**	**46,137.4**	**25,396.6**	**31,517.9**
*ASEAN 5**	*698,623.0*	*606,746.1*	*5,856.5*	*42,915.8*	*23,478.9*	*26,125.8*
*BCLMV**	*52,085.0*	*47,351.7*	*385.5*	*3,221.6*	*1,917.7*	*5,392.0*

* ASEAN 5 consists of Indonesia, Malaysia, Philippines, Singapore and Thailand, while BCLMV comprises of Brunei Darussalam, Cambodia, Lao PDR, Myanmar, and Viet Nam

Table 4-2 Selected key ASEAN indicators in 2006
Sources: (ASEAN-Statistics, 2008)and Author's calculation

Table 4-1 and Table 4-2 illustrate key differences among ASEAN member countries. Singapore is the smallest ASEAN country, area wises, but gains the largest amount of GDP per capita. Indonesia has the largest population, land area, and gross domestic product which account for 42%, 39%, and 33% share of all ASEAN nations respectively. While Brunei, among all ASEAN nations, has the smallest land area and the smallest population, intra-ASEAN foreign direct investment, and both intra & extra-ASEAN tourist arrivals. Cambodia has the third smallest population with the second lowest GDP per capita, while, Lao PDR has the lowest population density, number of gross domestic product, merchandise trade volume and inflow of foreign direct investment but has the highest tourist arrivals among other BCLMV[2] nations. Malaysia, the third ASEAN strongest economy in term of GDP per capita, has the highest intra-ASEAN tourist arrivals. In contrast, Myanmar is the ASEAN poorest economy in term of GDP per capita and gains the second ASEAN lowest number of tourist arrivals. The Philippines has the second ASEAN largest population, in contrast, it has the lowest GDP per capita among ASEAN-5[3] countries. Thailand, the third ASEAN largest country in term of land areas and the fourth in term of population, has the biggest tourism market for extra-ASEAN market and highest number of intra-ASEAN foreign direct investment inflow. Lastly, Vietnam is the second largest land area and the highest number of population with the biggest merchandise trade volume among BCLMV countries.

In December 1997, ASEAN leaders had tried to turn the crisis to opportunities. Against the Asian financial crisis in which all ASEAN nations experienced difficulties, ASEAN leaders adopted 'ASEAN Vision 2020', which envisioned as a 'A Concert of Southeast Asian Nations' to create living in peace, stability and prosperity, bonded together in a partnership of dynamic development and in a community of caring societies (ASEAN-Secretariat, 1997). Leaders formalised the vision on 7 October 2003 at the ninth ASEAN Summit in Bali, seeking to transform ASEAN from an Association into a Community comprising an ASEAN

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[2] BCLMV consists of Brunei Darussalam, Cambodia, Lao PDR, Myanmar, and Viet Nam

[3] ASEAN-5 consists of Indonesia, Malaysia, Philippines, Singapore and Thailand

Security Community, an ASEAN Economic Community and an ASEAN Socio-Cultural Community(ASEAN-Secretariat, 2003).

"The ASEAN Economic Community (AEC) is the realization of the end-goal of economic integration as outlined in the ASEAN Vision 2020, to create a stable, prosperous and highly competitive ASEAN economic region" (ASEAN-Secretariat, 2003 the Declaration of ASEAN Concord II, Section B paragraph 1). The AEC is intended to be a market in which there is a free flow of goods, services and skilled labour, and a freer flow of capital by 2020 – with accelerated integration in eleven key sectors by 2010[4]. The Economic Community is intended to be outward-looking, renewing ASEAN as a regional economic hub in Asia and a magnet for FDI by creating a seamless production base and an integrated market of over half a billion consumers with a gross domestic product of almost US$1,300 billion. The Economic Community also aims to narrow the development gap between the richer and poorer ASEAN countries. Nandan(2006, p.1) summarises the economic imperative of the AEC as follows:

- The AEC is one aspect of an ambitious broader agenda to build an ASEAN Community – also comprising an ASEAN Security Community and an ASEAN Socio-Cultural Community – to maximise ASEAN's cohesion and increase its influence in the Asia-Pacific and its contribution to regional stability.
- Specifically, the idea of an AEC is a strategic response to the economic rise of major regional competitors – China and India.
  - China and India have enjoyed faster GDP and export growth than ASEAN overall in the past decade. China's inflows of foreign investment, which were less than ASEAN's at the start of the 1990s, now dwarf ASEAN's inflows. India is another potentially significant emerging rival for foreign investment inflows.

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[4] The eleven sectors are: agro-based products, fisheries, wood-based products, rubber-based products, textiles and apparel, automotives, electronics, e-ASEAN, healthcare, tourism and air travel.

- The AEC is also a response to the broader pressures of globalisation as many other competitors emerge, including those that are being helped by preferential trading arrangements with North America and the European Union.
- The combination of these factors makes a strong case for seeking faster integration among ASEAN economies.

There are a numbers of critical factor in ASEAN's success in bringing its plans for an Economic Community to completion. Wattanapruttipaisan (2006, p.5) concludes two dimensions of the risks and challenge in AEC building as follows.

Intra-regional:

- Large development divides and slows income convergence in ASEAN over time.
- Persistence of large gaps in institutional development and implementation capacity within ASEAN.
- Crisscrossing Free Trade Agreements (FTAs) by ASEAN and ASEAN member countries.
- Low levels of Intellectual Property (IP) creativity and innovation.
- Persistent, heavy dependence on low-value added external technologies, and footloose industries and Foreign Direct Investment (FDI).
- Natural disasters and environmental degradation.
- Mass outbreaks of communicable diseases.
- Terrorism and crimes.

Extra-regional

- Interruptions in oil supply and persistence of high oil prices.
- China and India: increasing competition for markets, natural and financial resources, and off-shored services.
- On-going advances in "disruptive" technologies, and commercial breakthroughs in consumer and producer goods.

- Ever-rising thresholds of performance and productivity expectations from producers, services suppliers and workers alike.

- More sophisticated, exacting and fickle consumer and market demands.

- Delayed negotiations and/or modest achievements under the Doha Development Agenda (DDA) as the trade-negotiation round of the World Trade Organization (WTO).

- Geo-political problems, including those in East Asia.

- Trans-regional terrorism and crimes.

At this stage, the thematic analysis could facilitate the analysis of above data and put the result in the following conceptual mapping (see Figure 4-1). At the present, ASEAN is facing the new challenge in bringing its all 10 member countries into a single market-one community. There are two approaches being focused; The Regional-level approach and Country-level approach. Regional-level approach aims to achieve the regional integration and economic community establishment. Macroeconomic and geo-political issues are key factors influencing the integration. The expected outcomes from the integration are economic growth and more competitive economies of the region/community. The Country-level approch is constructed to build the region more competitive economies. Three drivers; opening market, fostering innovation, and meeting infrastructure needs, are inter-related to each other in order to sustain the development.

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┌──────────────┐   ┌──────────────┐
│Macroeconomic │   │ Geo-political│
│  Situation   │   │  situation   │
└──────────────┘   └──────────────┘
        ↓                 ↓
   ┌────────────────────────┐
   │  Regional Integration  │
   └────────────────────────┘
        ↓                 ↓
┌──────────────┐   ┌──────────────┐
│  Economic    │   │More competitive│
│ growth in the│   │  economies   │
│   region     │   │              │
└──────────────┘   └──────────────┘
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Building more compettitive economies

Opening market to enhance productivity

Fostering innovation and SMEs

Meeting infrastructure needs
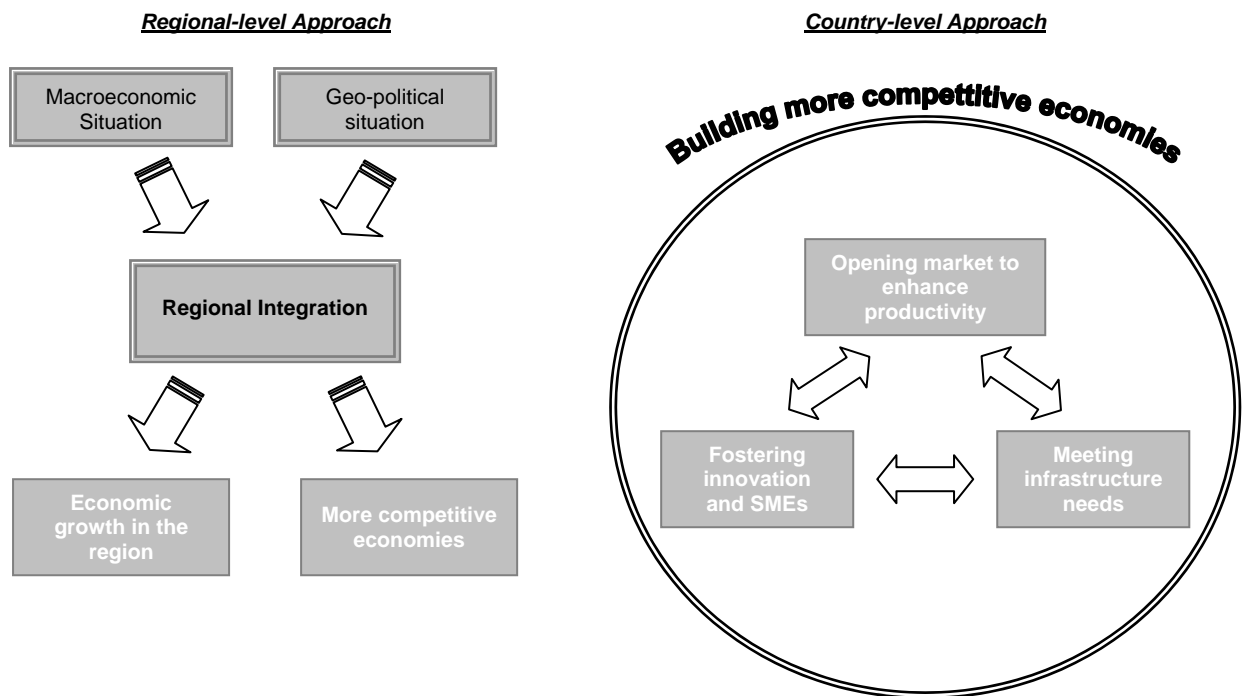
Figure 4-1 Thematic diagram of the ASEAN economic community development scheme

4.2 Exploration of ASEAN Airline Market

The aviation industry in ASEAN is quite heterogonous (Forsyth et al., 2004). Ten ASEAN member countries differ widely in terms of their GDP per capita, their size, aviation policies and the strength of their aviation industries (Forsyth et al., 2006). Especially, the nature of airline business varies across all ASEAN member countries. Considering the very contrast between Singapore and Cambodia is good example. Singapore has signed a large number of liberal Air Service Agreements (ASAs) with both within and outside ASEAN, highly invested in its aviation infrastructure. Singapore Airline is the largest ASEAN airline and one of the top 15 largest airline in the world (ATW, 2007), and relatively high buying power of it populations, but, interestingly, there is no domestic market at all due to very small country's size. In contrast, Cambodia has a huge area but very small domestic airline market, according to very low income per capita, and few liberal air service agreements signed. Its national airline had difficulties to sustain operation and its private-owned airlines have a limited expansion.

Therefore, the study of regional situation and business environment would benefit both key factors exploration and understanding of Thailand' regional context. The study covers the ASEAN as a collective view as well as six selected airline markets-Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. The other four countries; Brunei, Cambodia, Laos, and Myanmar, have not been analysed due to a lack of compatible country data availability. The results of the study are following:

4.2.1 ASEAN Airline Market

ASEAN airline market has been evolved through many stages since the establishment of may ASEAN nations' flag carrier during the 1940s. Hooper (2005) summarises the evolution of the market that after the long-range, wide-bodied aircraft was introduced in the early 1970, ASEAN airlines exploited the opportunity by starting to transform themselves into aggressive international players and quickly establishing the reputation for differentiate service and low fares advantage by partnering with western conventional airline. At that time, though ASEAN airlines did not contribute a significant volume of traffic, its airlines were positioned as stopover locations along the expanding long-haul routes, and inbound tourism was growing rapidly.

During the 1970s and 1980s, the transformation of Asian economies changed the situation. New industrialised countries like Japan emerged as major generators of business and tourism travellers. In addition, many other industrializing economies growing within the region attracted both intra & extra-regional investors and produced higher demand for travel. By these circumstances, ASEAN flag carriers alone were insufficient to cope with such demand and then pressured their governments to allow private investors to have a greater role in the market, resulting in many new airlines emerged.

After the economic downturn in late 1990s, the ASEAN economies have been rapidly recovering. Regarding Boeing's forecast, the annual air traffic growth in ASEAN is expected to average 6.8%, above the world average of 5.0%, from now till

year 2027. ASEAN fleet is projected to expand its capacity at 250% from 2007-2027. The total amount of inter/intra-regional revenue passenger kilometres (RPKs) in 2007 is 479 billion RPKs (10.58% of world RPKs) and will increase to be 1,707.30 billion RPKs in 2027, which shares 17.98% of the total world RPKs (Boeing, 2007). The always busiest routes in ASEAN, apart from the intra regional one, are the routes link ASEAN with Europe and Northeast Asia region. See Figure 4-2.
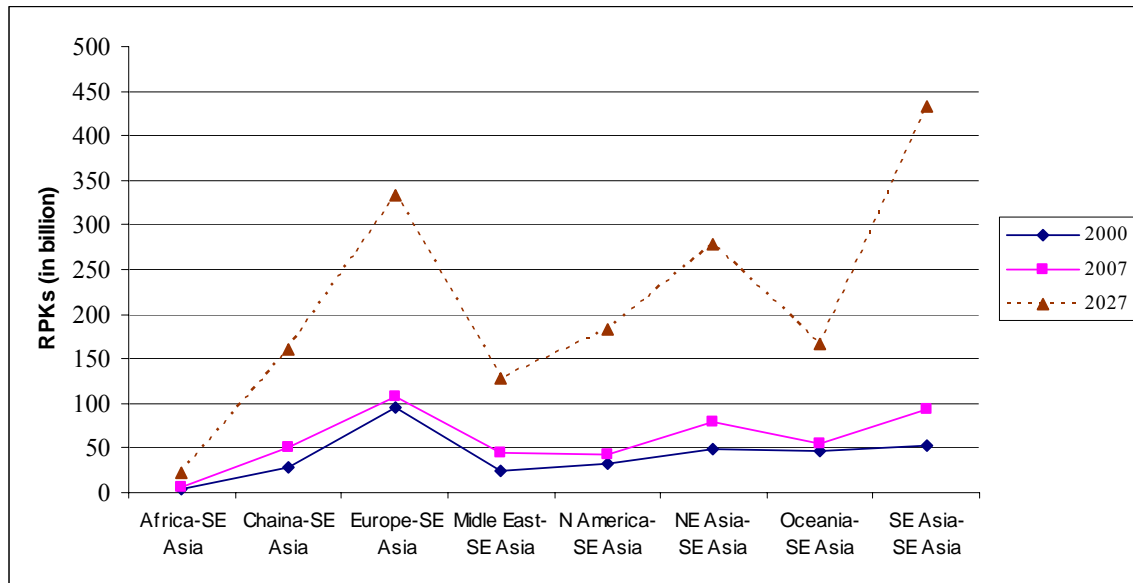
Figure 4-2 The Southeast Asian airline passenger traffic by inter/intra region in Y 2000, 2007, and 2027
Source: (Boeing, 2005, Boeing, 2007)and Author's calculations

In addition, the statistics from year 2003 to 2008 shows remarkable changes of passenger-kilometres number in the countries. All BCLMV countries achieved more than 10% traffic average growth over the 2003-2008 period. Singapore, the ASEAN smallest but richest country, acquires the biggest share of all ASEAN air passenger traffic at 8.23% average growth. Brunei has the second ASEAN slowest air traffic growth at 4.26% annually and the third smallest airline market with 1.59% share. While Cambodia has the second ASEAN smallest share of air traffic but take the first rank of traffic average growth at 43.28% annually over the past 6 years. The biggest ASEAN country, Indonesia, shares the forth rank at 12.55% of the regional air traffic demand with the second rank of 17.26% average traffic growth. Lao, the least populated country, has the ASEAN smallest share of air traffic demand at 0.11% but posses the second highest average traffic growth at 12.26% among BCMLV

countries. Malaysia acquires the third ASEAN biggest air traffic at 18% share with the lowest average growth of around 4% annually. Myanmar, the poorest ASEAN country in term of GDP per capita, posses the ASEAN third lowest traffic share of 0.61% but still gains 10% traffic growth. The Philippines has the smallest traffic share at 6.68% and the second slowest traffic growth at around 5.5 %, comparing with other ASEAN-5 countries. Thailand, the largest extra-ASEAN tourism market, shares the second largest traffic at 22.16% with 7.59% average traffic growth. Lastly, Vietnam has the biggest traffic share at 3.66% with 11.48% average growth, when comparing with other BCMLV countries. See Table 4-3.
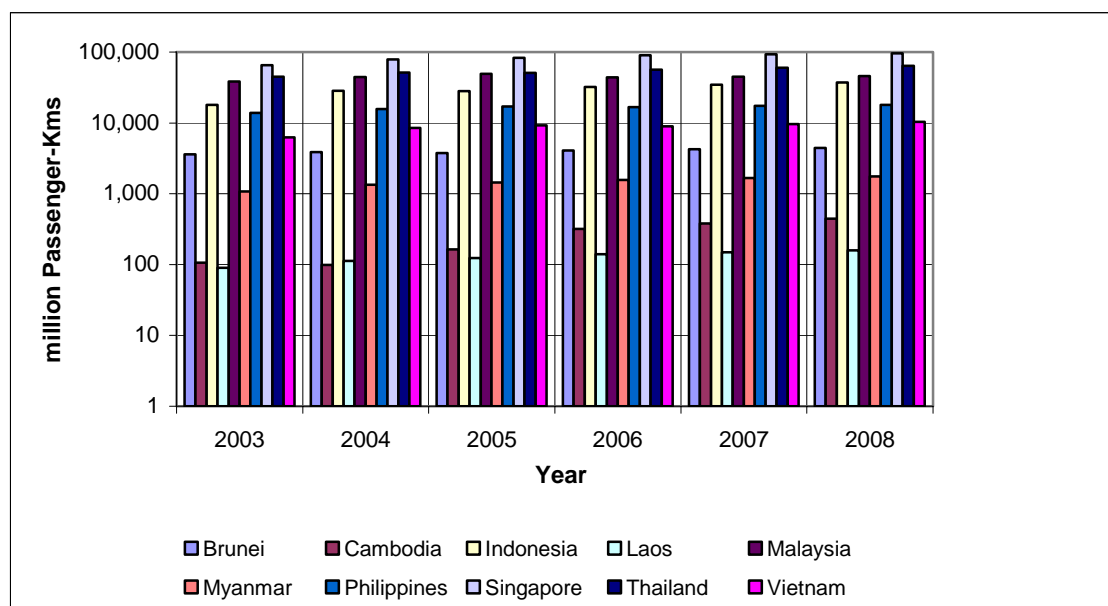
Figure 4-3 Ten ASEAN member countries' air traffic statistic: 2003-2008
Source: (ICAO, 2009a)

Country	2003		2004		2005		2006		2007		2008	
	% Total	% Growth	% Total	% Growth	% Total	% Growth	% Total	% Growth	% Total	% Growth	% Total	% Growth
Brunei	1.87	n.a.	1.65	7.29	1.55	-2.35	1.60	7.86	1.59	4.34	1.58	4.16
Cambodia	0.06	n.a.	0.04	-6.99	0.07	67.78	0.13	92.79	0.14	20.23	0.16	16.80
Indonesia	9.38	n.a.	12.19	58.22	11.60	-0.72	12.61	13.49	12.99	7.95	13.34	7.36
Laos	0.05	n.a.	0.05	24.83	0.05	9.95	0.06	13.81	0.06	6.53	0.06	6.20
Malaysia	20.05	n.a.	19.13	16.21	20.37	11.06	17.24	-11.62	16.82	2.24	16.44	2.19
Myanmar	0.57	n.a.	0.57	23.65	0.59	8.11	0.61	7.66	0.62	6.50	0.63	6.10
Philippines	7.26	n.a.	6.74	13.14	7.04	8.80	6.61	-1.89	6.54	3.71	6.48	3.57
Singapore	34.13	n.a.	33.88	20.95	34.06	4.83	35.46	8.71	34.99	3.39	34.55	3.28

Country	2003		2004		2005		2006		2007		2008	
	% Total	% Growth	% Total	% Growth	% Total	% Growth	% Total	% Growth	% Total	% Growth	% Total	% Growth
Thailand	23.37	n.a.	22.09	15.17	20.88	-1.46	22.18	10.96	22.62	6.86	23.02	6.42
Vietnam	3.26	n.a.	3.65	36.37	3.79	8.23	3.51	-3.11	3.63	8.27	3.74	7.64
ASEAN	100.00	n.a.	100.00	21.83	4.28	4.28	100.00	4.44	100.00	4.79	100.00	4.57
ASEAN (mil. Passenger-Kms	191,583.90		233,397.70		243,376.00		254,183.20		266,347.40		278,511.30	

Table 4-3 ASEAN member countries' airline passenger: % total and % annual growth from 2003-2008

Source: (ICAO, 2009a) and Author's calculation

4.2.2 Context of ASEAN Country and Its Airline Market

This part presents country's context and its airline market overview of all 10 member countries of ASEAN. The major sources of data are mainly from ASEAN secretary website, ASEAN reports, Air Transport Intelligence (ATI) online database and Global Market Information Database (GMID) of Euromonitor International, country and regional reports. There are some differences about availability of countries' data. The richest data acquired are ASEAN-5 countries plus Vietnam. The other 4 countries; Brunei, Cambodia, Myanmar and Loa PDR, have limited range of information. The common range of data of all countries presented are country's political structure and risk, regional/international conflicts, economic situation, and air transport industry overview. The more in-depth information about airline industry supplied belongs to ASEAN-5 countries and Vietnam. They are Airline Capacity and Utilisation (Load Factor), Airline Seat Class and Distance, and Airline Performance of all 6 countries.

Brunei Darussalam

Oil-rich Brunei Darussalam lies on the Northwestern coast of the island of Borneo. Its all land sides are surrounded by Malaysian territory. The country has a humid and tropical climate. The capital is Bandar Seri Begawan. Brunei achieved full independence from the UK in 1984 and is ruled by an executive monarch, the Sultan, who holds all legal powers.

Political structure and risk

After achieving full independence from the UK in 1984, the country is governed by the Sultan, HM Sultan Sir Muda Hassanal Bolkiah Mu'izzaddin Waddaulah. The Sultan is head of both state and government. The Sultan is assisted by a Council of Ministers, a Religious Council and a Privy Council. However, part of the Constitution has been withdrawn since 1962, when public protests developed. The Sultan disbanded the Legislative Council in 1984 and again in 2004. A new 29-member council was appointed in September 2005. Currently, the Sultan rules the country by decree.

Regional/International Conflicts

There is the territorial dispute with neighbouring, Malaysia, over the deep-sea acreage off the coast of Borneo. In 2003, Brunei suspended exploration work in the area following an incident involving several naval patrol boats from Malaysia. In 2004, Shell Malaysia announced a new oil discovery near the disputed area, making Brunei's need for solving the issues more urgent. Brunei is also one of many countries claiming for the sovereignty of the Spratly Islands.

Economic situation

Brunei Darussalam is a small but high income country. Brunei's GDP is dependent heavily on crude oil and natural gas. In 2008, energy revenues account for 69% of GDP, over 95% of exports and 94% of government revenues. The other sectors of the country's economy are agriculture, forestry and fisheries and light, unskilled labour-intensive manufacturers (mainly textiles and furniture) which have not been developed rapidly. Farming is largely limited to yams, bananas and cassava mainly for the domestic market, but there are also considerable stocks of hardwoods, which are exported. Agriculture accounts for only 5% of GDP but the government is

working to build up various agricultural operations. The government plays an important role in the economy, employing about two thirds of the local labour force.

Brunei's GDP very much depends on petroleum price. GDP growth has fluctuated correspond with fuel price. The government has taken a gradual approach to its main goal of diversifying the economy from its oil and gas dependence. Brunei would like to turn itself into a major shipping hub and diversify away from hydrocarbons into areas like tourism for its attractive resources such as; unspoiled tropical forests, beaches, shipwrecks, the world's largest palace and gilded mosques, and energy-intensive industries like petrochemicals, oil refining and aluminium smelting.

An average applied tariff for all goods in Brunei is relatively low but there are peaks of up to 200% (for motor vehicles) and tariff escalation. A number of imports and exports are subject to prohibitions restrictions (for health, security and moral reasons), and licensing requirements. Products subject to restrictions include a number of agricultural products including rice, sugar, salt, beef, poultry and alcoholic beverages and also manufactures such as telecommunications equipment, medical products and chemicals. There are no mandatory standards in Brunei. Procurement is open to foreign suppliers, while there is a 15 % price preference margin for local suppliers.

Brunei's commitments to World Trade Organization (WTO) in services are limited to 4 out of 12 service sectors: business, communication, financial, and transport services. FDI is permitted in most sectors. This includes up to 100 % equity investment in all sectors except those employing local resources and in those relating to food security and car dealership, for which some local participation is required.

Air Transport Industry

From 2002-2008, considering the number of passenger at Brunei International Airport, air transport in Brunei experiences the gradually passenger growth. The airport is only one operating airport with five airlines serving; one Bruneian carrier,

two Malaysian carriers, and two Singaporean carriers. Airlines fly non-stop to 15 destinations in 3 main regions; 10 in Asia, 2 in Middle East and 3 in Southwest pacific. Routes to Southeast Asia account for 76.47% of all scheduled frequency. (See Table 4-4)

Brunei International Airport						
Categories	**Details**					
Traffic Statistics (millions):	**2002**	**2003**	**2006**	**2007**	**2008**	**% total**
International passenger	1.052	0.975	1.132	1.184	1.271	81.51
Terminal passengers	1.052	0.975	1.132	1.184	1.271	81.51
Transit passengers	0.233	0.218	0.27	0.263	0.284	18.47
Total passengers	1.285	1.193	1.402	1.448	1.555	100.00
Airline Serving: 5	AK-AirAsia, MH-Malaysia Airlines, BI-Royal Brunei Airlines, MI-SilkAir, SQ-Singapore Airlines					
Destination: Asia- 10 Middle East- 2 South Pacific - 3	**Asia:** Bangkok Suvarnabhumi International, Ho Chi Minh City - Tan Son Nhat Internat, Hong Kong International, Jakarta Soekarno Hatta International, Kota Kinabalu International, Kuala Lumpur International, Kuching, Manila Ninoy Aquino International, Singapore Changi, Surabaya - Juanda **Middle East:** Dubai International, Jeddah King Abdul Aziz **South Pacific** Auckland International, Brisbane International, Perth					
Regional Analysis	Asia : North East Asia Asia : South East Asia Europe : Western Middle East Southwest Pacific					5.88% 76.47% 2.94% 4.41% 10.29%

Table 4-4 Brunei International Airport's Traffic Data
Source:(ATI, 2009) and Author's calculation

Brunei has one national carrier, Royal Brunei Airlines (RBA), serving both regional and international destinations. Royal Brunei's first scheduled flight, operated by a Boeing 737-200QC, linked Bandar Seri Begawan with Singapore on 14 May 1975. Its route network has been expanded through mainly in Southeast Asia. The airline's fleet consists of 4 single-aisle aircrafts and 6 twin-aisle aircrafts. Its traffic statistics show fluctuating number of passenger carried but gradually improved load factor. Regarding the national carrier's market share, RBA significantly did lose its passenger share from 80.11% in 2007 to 63.02% in 2008.

Royal Brunei Airlines					
Categories	**Details**				
Traffic Statistics:	**2004**	**2005**	**2006**	**2007**	**2008**
Passenger carried - millions	*1.080*	*1.110*	*1.020*	*1.160*	*0.980*
Passenger load factor-%	*66.40*	*69.47*	*72.45*	*70.26*	*71.23*
Market share-%	*n.a.*	*n.a.*	*72.75*	*80.11*	*63.02*

Royal Brunei Airlines	
Categories	Details
Airport Served: Asia- 11 Europe- 1 Middle East- 2 Southwest Pacific - 3	**Asia**: BKK -Bangkok Suvarnabhumi International, BWN-Brunei International, SGN-Ho Chi Minh City - Tan Son Nhat Internat, HKG-Hong Kong International, CGK-Jakarta Soekarno Hatta International, BKI-Kota Kinabalu International, KUL-Kuala Lumpur International, KCH-Kuching, MNL-Manila Ninoy Aquino International, SIN-Singapore Changi, SUB-Surabaya - Juanda **Europe:** LHR -London Heathrow **Middle East:** DXB-Dubai International, JED-Jeddah King Abdul Aziz **Southwest Pacific:** AKL-Auckland International, BNE-Brisbane International, PER-Perth
Fleet:	Airbus A319-100 2 Airbus A320-200 2 Boeing 767-300ER 6 Total 10

Table 4-5 Bruneian Carrier's Data
Source:(ATI, 2009) and Author's calculation

Cambodia

Cambodia is located at the centre of the Indochina with Vietnam to the south and east, Laos to the north and Thailand to the northwest. Its 300-kilometre stretch of land connects to the Gulf of Thailand. Most of the country is near-impenetrable jungle. The climate is tropical and extremely humid. The capital city is Phnom-Penh.

Political structure and risk

The State of Cambodia resumed its traditional title in 1990, having been known since the late 1970s as Kampuchea or Democratic Kampuchea. The National Assembly has 123 members, elected for a five-year term by proportional representation. The Senate has 58 members. Of these, 54 are universally elected while the king and the National Assembly choose two each. The head of state is King Narodom Sihamoni and the head of government is Hun Sen. The Cambodian People's Party (CPP) leads a coalition with its historical rival, the royalist United National Front party, known as Funcinpec. Cambodia's democratic political system has made limited progress. Given nearly three decades of conflict and a volatile political environment, most institutions have had to be rebuilt and remain unstable. Corruption remains a concern and becomes a serious barrier to private sector development.

Regional/International Conflicts

Cambodia and Vietnam have several areas of dispute. These include their maritime boundary in the Gulf of Thailand and Phnom-Penh's objections to illegal immigration from Vietnam. The country's relations with Thailand reflect a century of tension. Thailand supported the Khmer Rouge during their long struggle to regain control. Cambodia's tensions with Thailand erupted into violence in 2003 when Thai-owned hotels, offices and factories in Cambodia were burned and robbed, causing at least US$50 million in damage. In 2005, the US accused the government of attempting to crush the country's democratic opposition. Developed countries are critics of the government's failures to reduce corruption and human-rights abuses. However, they offered US$690 billion in aid in 2007. The sum is more than the central government's annual tax revenue.

Economic situation

Cambodia is a small economy as one of the world's least developed countries, with inadequate infrastructure and a largely unskilled and uneducated work force. In 2006, its agricultural sector provides 36 % of GDP and manufacturing production has expanded to 20 % of GDP. This production includes resource-intensive products such as processed foods and labour-intensive products such as textiles and clothing. Cambodia's exports are dominated by clothing and footwear which accounted for almost 80 % of merchandise exports in 2004, followed by agricultural and resource-based products. Tourism is the leading service sector, but comparing with Cambodia's general level of development the other service sectors remain relatively undeveloped.

Cambodia's growth began in the 1980s. Its transition started from an economy devastated by the civil war of the early 1970s. Before Cambodia could adopt the kinds of policies found in the advanced ASEAN countries, it had to build a market economy from very first fundamental, for example by introducing private property and prices determined by market drivers. Cambodia became a member of the WTO in 2004.The economy has been expanding at close to 10% per year for the past four years. The poverty rate has dropped significantly over the past decade but around one-fifth of the

population still lives in acute poverty. In rural areas nearly two-fifths of residents are poverty stricken. Economic progress has been widespread but not uniform. People in rural areas have limited access to irrigation, roads, markets, and basic services, and lack secure land tenure.

Cambodia has tariff peaks in areas such as agriculture and food, clothing and photographic equipment. Cambodia also has non-tariff measures. It applies no quantitative restrictions on imports but it has import licensing, customs valuation practices and other formalities, fees for imports and exports, prohibited items (narcotics, poisons, certain pesticides) and technical barriers. Cambodia's 1994 law on investment established an open and liberal foreign investment regime. Foreign investors are allowed to participate in most sectors and receive national treatment. There are a few sectors subject to conditions, local equity participation or prior authorisation from relevant authorities. The low level of economic development is the most severe barrier to the growth of closer trade and investment ties with other countries. The main targeted export destination is in North America while Asia-Pacific is the largest import destinations.

Air Transport Industry

Cambodia has two main hub airports; Phnom Penh International and Siem Reap International airport. Consdering the traffic to/from these two airports, the number of international passengers has remarkably increased at nearly 100% during 2004-2007 and accounts for more than 80% of total traffic. In contrast, the domestic traffic shares less than 20 % and experiences the fluctuation over the period. Phnom Penh International Airport plays the most important role as serving 16 airlines; two Malaysian carriers, two Korean carriers, three Thai carriers, three Chinese carriers, three Singaporean carriers, and one of Taiwanese, Vietnamese, and Hong Kong's carrier. Both airports are entirely linked with Asian destinations only. Phnom Penh international has two-third of its total traffic frequency linking within Southeast Asian hubs, whilst, the rest connect with North Asian hubs. Siem Reap International's traffic is more intense in Southeast Asia networks. (See Table 4-6)

Phnom Penh International Airport						
Categories	**Details**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	0.192	0.158	0.155	0.179	0.157	17.09
International passenger	0.798	0.858	1.088	1.335	1.438	81.19
Terminal passengers	0.991	1.016	1.244	1.514	1.595	94.84
Transit passengers	0.031	0.065	0.079	0.084	0.097	5.16
Total passengers	1.022	1.082	1.322	1.598	1.692	100.00
Airline Serving: 16	AK-AirAsia, OZ-Asiana Airlines, PG-Bangkok Airways, CI-China Airlines, MU-China Eastern Airlines, CZ-China Southern Airlines, KA-Dragonair, BR-EVA Air, 3K-Jetstar Asia Airways, KE-Korean Air, MH-Malaysia Airlines, FM-Shanghai Airlines, MI-SilkAir, FD-Thai AirAsia, TG-Thai Airways International, VN-Vietnam Airlines					
Destination: Asia- 12	**Asia:** Bangkok Suvarnabhumi International, Guangzhou Baiyun International, Ho Chi Minh City - Tan Son Nhat International, Hong Kong International, Kuala Lumpur International, Nanning Seoul Incheon International, Shanghai Pudong International, Siem Reap International, Singapore Changi, Taiwan Taoyuan International, Vientiane - Wattay International					
Regional Analysis	Asia : North East Asia Asia : South East Asia				30% 70%	

Siem Reap International Airport						
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	0.182	0.147	0.245	0.185	0.170	17.98
International passenger	0.607	0.858	1.17	1.467	1.314	81.68
Terminal passengers	0.789	1.005	1.415	1.652	1.484	96.79
Transit passengers	0.011	0.033	0.035	0.082	0.048	3.21
Total passengers	0.8	1.038	1.45	1.734	1.532	100.00
Airline Serving: 9	AK-AirAsia, OZ-Asiana Airlines, PG-Bangkok Airways, 3K-Jetstar Asia Airways, KE-Korean Air, QV-Lao Airlines, MH-Malaysia Airlines, MI-SilkAir, VN-Vietnam Airlines					
Destination: Asia- 10	**Asia:** Bangkok Suvarnabhumi International, Da Nang Hanoi Noi Bai International, Ho Chi Minh City - Tan Son Nhat International, Kuala Lumpur International, Luang Prabang, Pakse, Phnom Penh International, Seoul Incheon International, Singapore Changi					
Regional Analysis	Asia : North East Asia Asia : South East Asia				4.35% 95.65%	

Table 4-6 Cambodian's first two busiest airport traffic data
Source:(ATI, 2009) and Author's calculation

Airline industry in Cambodia had experienced remarkable difficulties over past 6 years. The evidences could be seen from the number of airline entry and exit. Considering in 2003, there were 3 new airlines entered to the market then, regarding the Severe Acute Respiratory Syndrome (SARS) outbreak, Mekong airline could not survive after only its 3 moths operation. Most of Cambodian airlines base their operation at Phnom Pehn International airport to link the domestic traffic, mainly to Siem Ream, with those international flights from Asian region, especially from Southeast Asia region.

Airline	Route served	Operational period	Fleet
Angkor Airways	Domestic: Phanom Penh-Siem Riep and International charter	Jan 2005 – May 2008	B 757: 1
Mekong Airlines	International: Phanom Penh to Hong Kong, Bangkok, Singapore , Kuala Lumpur, Ho Chi Minh City, Guangzhou and Shanghai.	Jan 2003 – May 2003	n/a
PMT Air	Domestic: Phanom Penh-Siem Riep and Internaitonal : Vietnam and South Korea	Jan 2003 – n/a	B737-200: 1 MD-83:1
President Airlines	Domestic from Phanom Penh to Siem Reap, Battambang, Stung Treng and Ratanakiry and international to Thailand, Taipei, and Hong Kong	Oct 1998 – n/a	n/a
Royal Air Cambodge	International and domestic scheduled services from Phnom Penh	Jan 1995 – Oct 2001	n/a
Royal Khmer Airlines	International from Phnom Penh and Siem Reap to Indo-China, South-East Asia and the Far East	Oct 2003 – Nov 2007	B737-200: 4
Royal Phnom Penh Airways	Domestic and international from Phnom Penh to Laos, Vietnam and Thailand	Oct 1999 – n/a	n/a
Siem Reap Airways	Domestic from Phanom Penh to Siem Reap and international to Thailand, Laos and Vietnam.	Nov 2000 – Nov 208	n/a

Table 4-7 Cambodian carriers' data
Source:(ATI, 2009)

Indonesia

Indonesia, the largest Muslim country in the world, is also one of the most geographically dispersed nations. It consists of a group of islands range from the large islands of Sumatra and Java in the west, through Sulawesi in the centre to the territory of Irian Jaya in Western New Guinea. The capital is Jakarta.

Political structure and risk

Indonesia's political structure is constructed of the People's Consultative Assembly which is composed of 1,000 members. Half the assembly is elected by universal franchise with the remainder appointed by the president, often from the armed forces. The House of People's Representatives has 550 members, elected for a five year term by proportional representation in multi-member constituencies. The

president and vice president are elected for five-year terms by universal franchise. At the present, the head of sate and government is Susilo Bambang Yudhoyono and the ruling government is formed by a coalition led the Party of Functional Groups (Golkar Karya) and the Indonesia Democratic Party.

The main political risks are from terrorism and problems from government's decentralisation agenda. The repeated terrorist attacks in Bali and Jakarta set back foreign investment and the tourist industry but both began to recover in 2007. The government's ambitious decentralisation agenda still poses significant problems. The transfer of funds from the central government to regions continues to rise but the latter are frequently unable to spend the funds due to capacity limitations.

Regional/International Conflicts

Relations with Papua New Guinea, the country's other separatist-driven region, are stressed and Indonesia faces claims from Malaysia to return two islands, Sipadan and Ligitan, where Indonesia's government wants to develop them as tourist destinations. Indonesia is also one of the claimants of the Spratly Islands in the South China Sea, where oil deposits are thought to have been located.

Economic situation

Indonesia is a lower middle-income country. It has rich agriculture and natural resources. Agriculture accounted for 15 % of output, with industry and services around 44 % and 41 % respectively in 2004. Indonesia's manufacturing base is highly diversified; most of them are small scale and cottage industries mainly producing consumer goods for the large domestic market. In 2006, a growing number of medium and large scale enterprises have emerged. Main merchandise exports include unskilled labour-intensive manufactures such as processed foods and textiles and clothing, crude petroleum and natural gas. In 2008, higher world prices for plantation crops and favourable weather prospects extensively benefited farmers. Higher wages are having a negative impact on the competitiveness of labour-intensive industries, such as

textiles and electronics. However, industries such as machinery, food and paper products are promising.

Indonesia's growth rates increased during the 1970s. In the mid-1980s the government began to remove regulatory obstacles to economic activity. The steps were aimed primarily at the external and financial sectors. In 1990s, Indonesia began a series of deregulation packages designed to lower applied tariffs, convert non-tariff barriers into tariffs and remove restrictions on foreign investment. This was accompanied by real GDP growth of over 7 % per annum on average from 1987 to 1997. However, Indonesia experienced hardest hit in the Asian financial crisis. Since the crisis, it has embarked on a major economic reform programme to restore growth, with some success. In addition, there are still some high tariffs and tariff escalation, particularly in agriculture. Indonesia raised some tariffs while reducing others in 2005 as part of its tariff harmonisation program. There is also recent evidence of protectionism through non-tariff barriers, particularly in agriculture, textiles and steel. Reforms to government procurement in 2004 were aimed to simplify procedures and increasing efficiency and transparency in the procurement process.

The economy continued to perform well in 2007 and 2008 even as the global economic environments worsen. Stronger investment has been supported by rising credit. Commodity exporters have performed well regarding to strong world prices. Indonesia has been unable to generate enough jobs to employ the 2.5 million annual entrants to the labour force. The Asia-pacific region is both a major export and import destination of Indonesia. Though the poverty rate declined to around 15.4% in 2008, however, more than 40 million still live in poverty.

Air Transport Industry

Jakarta Soekarno Hatta International Airport and Ngurah Rai – Bali International Airport are the busiest operating airports in Indonesia. Considering the total traffic of these two airports, the number of both international nd domestic passenger have continuously increased at around 24% of domestic traffic and 30% of international one, from 2004-2008. Jakarta international has 38 operating airlines

serving 52 destinations in five regions. The airport mostly serves domestic flights with some international traffic to/from mainly Southeast and Northeast regions. Bali international, the second busiest airport, serves 27 airlines operating to/from 20 airports in 3 regions. Its international passenger accounts for more than 60% of total traffic. (See Table 4-8)

Jakarta Soekarno Hatta International Airport						
Categories	**Details**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	19.028	20.674	22.633	23.938	23.655	94.82
International passenger	5.576	5.799	6.102	6.809	7.049	20.74
Terminal passengers	24.604	26.473	28.735	30.747	30.704	94.44
Transit passengers	1.479	1.474	1.849	1.712	1.529	5.56
Total passengers	26.083	27.947	30.584	32.459	32.233	100.00
Airline Serving: 38	CA-Air China, AK-AirAsia, 7P-Batavia Air, 8F-Cardig Air, CX-Cathay Pacific, 5J-Cebu Pacific Air, CI-China Airlines, CZ-China Southern Airlines, EK-Emirates, EY-Etihad Airways, BR-EVA Air, GA-Garuda Indonesia Airways, QZ-Indonesia AirAsia, JL-Japan Airlines, JQ-Jetstar Airways, 3Y-Kartika Airlines, KL-KLM Royal Dutch Airlines, KE-Korean Air, KU-Kuwait Airways, JT-Lion Airlines, LH-Lufthansa, MH-Malaysia Airlines, RI-Mandala Airlines, Merpati Nusantara, PR-Philippine Airlines, QF-Qantas, QR-Qatar Airways, BI-Royal Brunei Airlines, SV-Saudi Arabian Airlines, ZH-Shenzhen Airlines, SQ-Singapore Airlines, SJ-Sriwijaya Air, TG-Thai Airways International, TR-Tiger Airways, Trigana Air Service, VF- ValuAir, VIVA Macau, IY-Yemenia					
Destination: 52 Asia- 45 Middle East- 5 South Pacific- 2	**Asia:** Ambon - Pattimura Balikpapan, Bandar Lampung, Bangkok Suvarnabhumi International, Banjarmasin - Syamsudin Noor, Batu Besar, Bengkulu Brunei International, Guangzhou Baiyun International, Ho Chi Minh City - Tan Son Nhat Internat, Hong Kong International, Jambi, Kota Kinabalu International, Kuala Lumpur International, Kuching Macau International, Malang, Manado - Sam Ratulangi, Manila Ninoy Aquino International, Mataram – Selaparang, Medan Nanning, Ngurah Rai - Bali International, Padang Palangkaraya - Tjilik Riwut Palembang, Pangkalanbun Pangkalpinang, Pekanbaru Penang International, Pontianak – Supadio, Sampit, Semarang Senai Airport, Seoul Incheon International, Singapore Changi, Solo - Adi Sumarmo Wiryokusumo, Surabaya – Juanda, Taiwan Taoyuan International, Tanjung Pandan Ternate, Tokyo Narita International, Ujung Pandang - Hasanuddin Xiamen Gaoqi International, Yogyakarta, **Middle East:** Abu Dhabi International, Dammam - King Fahd International, Dubai International, Jeddah King Abdul Aziz, Riyadh King Khalid International **South Pacific:** Perth, Sydney Kingsford Smith International					
Regional Analysis	Asia : North East Asia					6.4%
	Asia : South East Asia					87.39%
	Europe : Western Europe					0.55%
	Middle East					4.57%
	Southwest Pacific					1.1%

Ngurah Rai – Bali International Airport						
Categories	**Details**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	2.042	1.837	1.495	2.193	2.467	36.86
International passenger	2.998	3.032	2.746	3.611	4.102	61.30
Terminal passengers	5.04	4.868	4.241	5.804	6.569	98.16
Transit passengers	0.071	0.103	0.098	0.084	0.123	1.84
Total passengers	5.111	4.971	4.338	5.888	6.692	100.00

	Ngurah Rai – Bali International Airport	
Categories	**Details**	
Airline Serving: 27	AK-AirAsia, 7P-Batavia Air, CX-Cathay Pacific, CI-China Airlines, MU-China Eastern Airlines, BR- EVA Air, GA-Garuda Indonesia Airways, UO-Hong Kong Express Airways, QZ-Indonesia AirAsia, JL-Japan Airlines, JQ-Jetstar Airways, KE-Korean Air, JT-Lion Airlines, MH-Malaysia Airlines, RI-Mandala Airlines, Merpati Nusantara, OzJet Airlines, DJ-Pacific Blue Airlines, QR-Qatar Airways, ZH-Shenzhen Airlines, SQ-Singapore Airlines, SJ- Sriwijaya Air, FD-Thai AirAsia, TG-Thai Airways International, UN-Transaero Airlines, Trigana Air Service, VF-ValuAir	
Destination: 20 Asia- 13 Europe- 1 South pacific- 6	**Asia:** Bangkok Suvarnabhumi International, Bima Chubu International, Dili, Ende, Guangzhou Baiyun International, Hong Kong International, Jakarta Soekarno Hatta International, Kuala Lumpur International, Kupang, Labuan Bajo, Mataram – Selaparang, Osaka Kansai International, Senai Airport, Seoul Incheon International, Shanghai Pudong International, Singapore Changi, Surabaya – Juanda, Taiwan Taoyuan International, Tambolaka Tembagapura, Tokyo Narita International, Ujung Pandang – Hasanuddin, Waingapu, Yogyakarta **Europe:** Moscow Domodedovo International **South Pacific:** Adelaide Brisbane International, Darwin International, Melbourne Tullamarine International, Perth, Sydney Kingsford Smith International	
Regional Analysis	Asia : North East Asia Asia : South East Asia Europe : Eastern/Central Europe Middle East Southwest Pacific	16.55% 66.90% 0.69% 0.69% 15.17%

Table 4-8 Indonesia's first 2 busiest-airport traffic data
Source:(ATI, 2009) and Author's calculation

Airline Capacity and Utilisation (Load Factor)

Total airline capacity from year 2002 to 2007 had gradually increased. In 2007 there were more than 34.7 million seats available, with 58% seats from scheduled flights and 42% seats from low cost carriers. The total seat capacity decreased around 6% in 2007 comparing to 2006. Scheduled airline seats sold fell 7% and low cost carriers seats sold grew more than 400% over 2002 to 2007 period. The load factor of full service airlines had significantly declined more than 30% from 2002 to 2007, while, low cost carrier's load factor had slightly increased at around 5%.

'000 seats	2002	2003	2004	2005	2006	2007
Total Airline capacity	16,596.2	23,348.0	30,056.0	33,586.9	37,239.3	34,712.1
- Full-service carriers (capacity)	12,832.1	15,934.5	18,980.6	19,997.9	21,272.3	20,166.1
-Charter (capacity)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-Low cost carriers (capacity)	3,764.2	7,413.5	11,075.4	13,588.9	15,967.0	14,545.9
Total Airline seats sold	13,900.2	17,482.0	21,266.1	22,786.9	24,656.5	22,989.0
-Schedule (utilisation)	10,681.9	11,064.6	11,569.4	10,617.5	10,065.4	9,944.6
-Charter (utilisation)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-Low cost carriers (utilisation)	3,218.4	6,417.4	9,696.7	12,169.4	14,591.1	13,044.4

'000 seats	2002	2003	2004	2005	2006	2007
% Load Factor	2002	2003	2004	2005	2006	2007
Total airline seats sold	83.8	74.9	70.8	67.8	66.2	66.2
-Schedule	83.2	69.4	61.0	53.1	47.3	49.3
-Charter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-Low cost carriers	85.5	86.6	87.6	89.6	91.4	89.7

Table 4-9 Indonesian airlines' capacity, utilisation, and load factor: 2002-2007
Source: (ICAO, 2009b), (Euromonitor, 2009b)and Author's calculation

<u>*Airline Seat Class and Distance*</u>

Between year 2002 and 2007, the growth trend of airline seat sold by economy class had increased significantly, while both business and first class each lost 2.2% volume share of sales by seat class. For airline sales by distance from year 2002 to 2007, short haul market still had been a dominant. Seats sold by short haul acquired 67.4% of the total seats sold in year 2007, while long haul flights had lost 3.2% volume share from year 2000 to 2005.

% Breakdown	2002	2003	2004	2005	2006	2007
Airline seats sold by class	100.0	100.0	100.0	100.0	100.0	100.0
-Economy class	85.7	85.8	86.5	90.7	91.3	90.1
-Business class	10.2	9.0	9.3	7.2	7.0	8.0
-First class	4.1	5.2	4.2	2.1	1.7	1.9
Airline seats sold by distance	100.0	100.0	100.0	100.0	100.0	100.0
-Short haul	64.2	64.4	78.9	74.2	72.4	67.4
-Long haul	35.8	35.6	21.1	25.8	27.6	32.6

Table 4-10 Indonesian airlines' sales volume by seat class and distance: % Breakdown: 2002-2007
Source: (Euromonitor, 2009b)

<u>*Airline Performance*</u>

Value sales

The best performing airline in value sales is Garuda Airways. The low cost Lion Air posts the second rank for such performance. Merpati is the least performance operator among those 8 selected Indonesian airlines.

Fleet size

Lion Air operates the biggest fleet with 95 aircrafts, followed by Garuda Airways with 49 aircrafts serving scheduled flights. Wings has the smallest fleet with 13 aircrafts.

Load factor

Lion Air, the largest of the low cost carriers, has the highest load factor with more than 95%, followed by Mandala and Sriwijaya at around 90% and 88% load factor respectively.

Passengers carried

Garuda Airlines still dominates the market in term of passenger carried, but with almost the lowest load factor comparing to other 7 airlines. Lion Air is on the second rank while gaining the highest load factor. Merpati gains the lowest volume of passenger carried with the lowest load factor.

Market Shares

In 2007, Garuda Airlines posts the leader position with more than 35% share of total market volume, followed by Lion Air at around 15% value share of airline sales. While, the other six private operators; Adam, Batavia, Mandala, Merpati, and Sriwijaya, acquire around 24% shares. During 2002-2007, modified HHI[5] shows the evolving market competition. The market experiences the gradually higher level of market concentration for the first 4 years. In 2007, modified HHI slightly increased due to the rising market share of Garuda and Lion and other.

Performance indicators	Value sales (local currency million	Fleet size	Passenger carried (million)	% average load factor
Adam	2,218,338.3	30.0	3.9	81.0
Batavia	1,530,298.8	29.0	n.a.	80.0
Garuda	13,363,472.6	49.0	10.9	76.0
Lion Mentari	3,966,558.0	95.0	7.7	96.0
Mandala	1,263,433.7	15.0	3.5	90.0

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[5] Herfindahl-Hirschman Index (HHI) is used to identify the level of market concentration. The HHI is calculated by summing the squares of the individual market shares of all the participants, therefore, high HHI represents low competition level.

Performance indicators	Value sales (local currency million	Fleet size	Passenger carried (million)	% average load factor
Merpati	1,182,046.0	n.a.	0.8	70.0
Sriwijaya	1,916,545.5	17.0	5.0	88.0
Wings	1,543,668.0	13.0	3.9	85.0

Table 4-11 Indonesian airlines' performance indicator: 2007
Source: (ICAO, 2009a), (Euromonitor, 2009b)and Author's calculation

% Breakdown	2003	2004	2005	2006	2007
Garuda Indonesia PT (Garuda Indonesian Airways)	30.9	29.4	28.8	29.3	36.7
Lion Air - Mentari Lion Airlines PT	10.2	12.5	13.2	13.1	15.1
Adam Sky Connection Airlines PT	5.2	5.9	6.2	6.0	6.1
Sriwijaya Air PT	0.0	2.3	3.6	4.2	5.3
Metro Batavia PT	3.6	3.9	4.1	4.0	4.2
Indonesia Air Asia PT	0.0	0.0	1.5	3.2	3.9
Mandala Airlines PT	6.0	5.2	4.5	3.9	3.5
Merpati Nusantara Airlines PT	5.7	4.3	4.0	3.6	3.2
Others	38.4	36.5	34.1	32.7	22.0
Total	100.0	100.0	100.0	100.0	100.0
Modified HHI (by excluding market shares of 'others')	2,895.9	2,668.3	2,473.4	2,450.7	2,749.9

Table 4-12 Indonesian airlines' market share & modified HHI : 2003-2007
Source: (Euromonitor, 2009b) and Author's calculation

Laos

Laos's northeast to southwest runs through the northernmost part of the central Indochina region. The country borders on China and Myanmar in the north, on Thailand in the west and on Cambodia in the south. In the east, Vietnam follows its entire length in such a way as to block Laos from the South China Sea. The country has a tropical and generally humid climate. Its capital city is Vientiane.

Political structure and risk

The Lao constitution, approved in August 1991, requires a National Assembly to be elected by universal suffrage and to serve for five years. The Assembly consists of 115 members and elects the executive President, who serves for five years as well. The Prime Minister is appointed by the President. Currently, the ruling party is Lao

People's Revolutionary Party. Laos' president, head of state, is Choummaly Sayasone who appointed Bouasone Bouphavanh as a head of government.

Regional/International Conflicts

Relations with neighbouring Thailand are sometimes tense by the movement of drugs from Laos to Thailand.

Economic situation

After an accession to power in 1975, the Laotian Government imposed a command economic system. A few years afterward, the government realised that the policy was holding back progress rather than stimulating growth and development. Reforms were introduced in 1986, when the government announced its 'new economic mechanism'. Initially, the mechanism was set to include a range of reforms in order to create conducive conditions to induce private sector activity. Prices determined by market forces replaced government-set prices. Trade barriers were reduced. In 1989, additional reforms targeted to macroeconomic policy. However, the overall progress of structural reform has remained slow. Laos has only made remarkable change in shifting away from a central-planned economy to an emerging market economy. The state commercial banks and state-owned enterprises are also in reforming transition. Laos achieved a growth rate of over 6% in the decade up to the 1997 Asian financial crisis, but since then progress in strengthening fiscal management has been slow and uneven.

Laos remains one of the world's least developed nations. It is a resource-rich landlocked country with inadequate infrastructure and a largely unskilled uneducated work force. The majority of the population depends on subsistence agriculture, mostly rice farming, which provided about half of GDP in 2003. Agriculture has recorded steady but modest average growth of 3%-4%. Land reforms have helped to boost production. Agricultural development is constrained by a lack of modern skills, inadequate infrastructure and capital. Foreign investment in rubber plantations helped

to support growth. Policy makers are trying to encourage farmers to move from the production of subsistence crops to commercial ones. It has seen an expansion in production of manufactures to 20 % of GDP, involving resource-intensive products such as processed foods or unskilled labour-intensive products such as textiles and clothing. Its main exports in 2004 were clothing, electricity, and resource-based products. The main targeted destination for both export and import is in Asia-Pacific region. The clothing industry has been contracting since the EU cancelled quotas for Laos. Tourist arrivals rose sharply in 2007 and 2008. The tourism industry has also begun to attract more interest from foreign investors.

The economy has been growing by more than 6% per year since 2002. The outlook is positive but very much depends on government policies in response to improve resource-intensive industries. Laos has made some progress in liberalising its trade regime. Quota restrictions on imports have been eliminated but it still has import licensing, which involve complicated procedures. There are a number of other non-tariff barriers including state-trading, customs procedures, government procurement procedures and import prohibitions. There are a range of restrictions to services trade. Laos is moving slowly ahead with its accession negotiations to the WTO, which should further reduce barriers. Laos maintains an extensive investment licensing process, which is characterised by strict and time-consuming procedures that are frequently used to protect domestic interests, limit competition and allocate foreign investment rights among various countries.

Air Transport Industry

The busiest airports in Laos are Vientiane and Luang Prabang Airports. The former one is located in the capital city and serving 5 airlines from 5 countries; China, Laos, Malaysia, Thailand, and Vietnam. Most flights at around 93% are operating to/from Southeast Asia destinations. Luang Prabang airport is in the UNESCO World's Heritage city, Luang Prabang and serving 3 airlines which fly to/from; 2 domestic routes, 3 cities in Thailand, Vietnam's and Cambodia's capitals. (See Table 4-13)

Vientiane - Wattay International Airport	
Categories	**Details**
Airline Serving: 5	AK-AirAsia, MU-China Eastern Airlines, QV-Lao Airlines, TG-Thai Airways International, VN-Vietnam Airlines
Destination: 11 Asia- 11	**Asia:** Bangkok Suvarnabhumi International, Hanoi Noi Bai International, Houeisay, Kuala Lumpur International, Kunming Wujiaba, Luang Namtha, Luang Prabang, Oudomxay, Pakse, Phnom Penh International, Xieng Khouang
Regional Analysis	Asia : North East Asia 7.14% Asia : South East Asia 92.86%

Luang Prabang Airport	
Categories	**Details**
Airline Serving: 3	PG-Bangkok Airways, QV-Lao Airlines, VN-Vietnam Airlines
Destination: 7 Asia- 7	**Asia:** Bangkok Suvarnabhumi International, Chiang Mai International, Hanoi Noi Bai International, Pakse, Siem Reap International, Udon Thani, Vientiane - Wattay International
Regional Analysis	Asia : South East Asia 100%

Table 4-13 Laos' two busiest airports traffic data
Source:(ATI, 2009) and Author's calculation

Laos has one national carrier, Laos Airlines, serving 14 routes in domestic and regional destinations including Cambodia, China, Thailand and Vietnam. The airline was established in January 1976 and operated in September as The Civil Aviation Company, after taking over from Lao Air Lines and Royal Air Lao. The western-built aircraft operated in the pre-communist era were sold and a new fleet was set up initially of Soviet-built and later Chinese-built aircrafts. The airline was rebranded as Lao Aviation in 1979. During 1995 the Government had begun inviting private and/or foreign investment in the airline and also adding western-built aircrafts into the fleet. After re-organisation, the airline was again rebranded, becoming Lao Airlines on March 2003. Currently, Lao Airlines' fleet consists of 10 operating aircrafts.

Lao Airlines	
Categories	**Details**
Airport Served: Asia- 14	**Asia**: BKK -Bangkok Suvarnabhumi International, CNX-Chiang Mai International, HAN-Hanoi Noi Bai International, HOE –Houeisay, KMG -Kunming Wujiaba, LXG - Luang Namtha, LPQ - Luang Prabang, ODY –Oudomxay, PKZ –Pakse, ZVK –Savannakhet, REP -Siem Reap International, UTH -Udon Thani, VTE -Vientiane - Wattay International, XKH -Xieng Khouang

Lao Airlines		
Categories	**Details**	
Fleet:	Antonov An-12	1
	Antonov An-24RV	4
	Antonov An-26	1
	ATR 72-200	2
	Cessna 208 Caravan	1
	Yakovlev Yak-40K	1
	Total	10

Table 4-14 Lao carrier's data

Source:(ATI, 2009) and Author's calculation

Malaysia

Malaysia is one of the largest countries in Asia-Pacific. It consists of the 11 states of Peninsular Malaysia, including the predominantly forested areas of Sabah and Sarawak, across the South China Sea on the northern coast of Borneo. Its climate is tropical and humid. The capital city is Kuala Lumpur.

Political structure and risk

Malaysia is a constitutional monarchy. The monarch is elected every five years from among the tribal elders of peninsular Malaysia. The political influence of the monarchy is limited. All executive power is exercised by the Prime Minister, who reports to a bicameral legislature. The House of Representatives (or Lower House) consists of 222 members elected for five-year terms, while the 70 members of the Senate serve three-year terms. Twenty-six of the Senate are elected by the state legislatures and 44 appointed by the monarch. Constitutional amendments in 1993 reduced the legal immunity of the nine Malay rulers. Currently, the government is formed by the member-parties of the National Front coalition. Head of state is Sultan Mizan Zainal Abidin and the prime minister is Najib Abdul Razak.

The political risk of Malaysian government is depending on the conflicts between the country's Indians and Chinese minorities and the Malay majority. The distribution of income and wealth is fairly inequitable. Though the government has succeeded in reducing poverty among ethnic Malays, who share 60% of the

population, but they still hold only a 19% share of the Malaysian economy. Poverty rates also vary considerably from state to state.

Regional/International Conflicts

Malaysia rejects a claim by the Philippines for the sovereignty of Sabah. Malaysia is pushing Indonesia for returning of two islands, Sipadan and Ligitan, and is one of many claimants for the Spratly Islands in the South China Sea. The government's aggressive enforcement on illegal labour has increased tensions with Indonesia. The worsening violence from terrorism in southern Thailand has further stressed bilateral relations between Malaysia and Thailand.

Economic situation

Malaysia is an upper middle-income economy. At its independence in 1957, Malaysia relied on tin, rubber and palm oil for export earnings. From the 1980s, the share of manufacturing grew and diversified rapidly, leading to the reduction of agriculture and mining. It was 30 % of GDP in 2005 while agriculture was less than 10 %. Palm oil is significant export product as Malaysia is the largest exporter of palm oil in the world. The government elaborately transformed manufactures and electronics and electrical products dominate. Malaysia has changed the product mix and increased the value added to output. The services sector, at around 46 % of GDP in 2005, has also started to diversify into more technologically advanced services. Government spending on development projects is expected to rise by 15% during 2008-2010 to reach US$72 billion. However, unlike previous spending plans, the present one is to focus more on the rural sector, reflecting the goal of reducing the income gap between urban and rural areas.

Malaysia also experienced relatively rapid growth rates from the 1960s. During the 1970s it sought to imitate the four Asian tigers and to make the transition from a reliance on mining and agriculture to manufacturing, such as electronics, steel and automotives,   and other industries and from import substitution to more export-

led growth. Malaysia could shift towards grounded macroeconomic policies and a more open market-based economy in the mid-1980s. Foreign and domestic investment played a significant role in the transformation of the economy from this period. Its growth rate averaged 9.3 % in the decade prior to the Asian financial crisis. Today, Malaysia is an export oriented market economy with a strong government presence; government-linked enterprises play an important role in the economy through the essential services such as transportation, energy, telecommunications and financial services.

Malaysia's economic growth slowed in 2008 and the economy is expected to contract slightly in 2009. This would be the first contraction since 1998. Malaysia's potential growth rate is estimated to be around 7%. Malaysia has continued efforts to liberalise its trade and investment regime. Malaysia has significant tariff peaks, tariff escalation and assorted non-tariff measures in politically sensitive goods sectors such as automotives, steel and sugar, and its services sector remains highly protected. Apart from import prohibitions implemented for national security, religious, and environmental reasons, various non-tariff border measures are used. Although imports and domestically produced goods are generally treated in the same way, an exception for national car manufactures contributes to a substantial non-tariff barrier. In addition, government procurement favours local businesses. Equity holdings in all new manufacturing projects have been fully liberalised; foreign investors can now hold 100 % equity in all investments in new projects as well as expansion/diversification projects. Malaysia has also relaxed its guidelines to provide greater flexibility for foreign equity participation in local firms. Sectors viewed as strategic such as broadcasting, water, energy supply, banks and health, however are still limited to 30 % foreign equity participation. Malaysia has further liberalised its policy on the employment of expatriates in the manufacturing sector.

Air Transport Industry

The two busiest airports of Malaysia are Kuala Lumpur International and Kota Kinabalu International airports. Considering the total traffic of both airports from 2004-2008, the international traffic (43.73%) experiences the higher growth rate than

the domestic one (15.86%). The Kuala Lumpur international serves as a country hub airport for 51 airlines operating to/from 5 continents. There are 65 destinations linked with the airport. Interestingly, the number of transit passenger at the airport has been continuously falling more than 50% over the review period. While Kota Kinabalu International plays more significant role on serving domestic flights at almost 80% of total traffic. For international flights, the majority destinations to/from both airports are in Southeast Asia. (See Table 4-15)

Kuala Lumpur International Airport						
Categories	**Details**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	8.039	8.389	8.592	9.132	9.409	34.18
International passenger	12.484	14.338	15.097	16.965	17.837	64.79
Terminal passengers	20.523	22.727	23.689	26.097	27.245	98.97
Transit passengers	0.535	0.487	0.441	0.356	0.284	1.03
Total passengers	21.059	23.214	24.13	26.453	27.529	100.00
Airline Serving: 51	CA-Air China, IX-Air India Express, MK-Air Mauritius, PX-Air Niugini, AK-AirAsia, D7-AirAsia X, Best Air, BG-Biman Bangladesh Airlines, S1-Cargolux Airlines International, CX-Cathay Pacific, 5J-Cebu Pacific Air, CI- China Airlines, MU-China Eastern Airlines, CZ-China Southern Airlines, MS-Egyptair, EK-Emirates, EY-Etihad Airways, BR-EVA Air, GA-Garuda Indonesia Airways, Z5-GMG Airlines, Indian Airlines, QZ-Indonesia AirAsia, IR- Iran Air, JL-Japan Airlines, 9W- Jet Airways, 3K-Jetstar Asia Airways, KL-KLM Royal Dutch Airlines, KE-Korean Air, KU- Kuwait Airways, JT-Lion Airlines, LH-Lufthansa, MH-Malaysia Airlines, MP-Martinair, Merpati Nusantara, 8M-Myanmar Airways International (MAI), PK-Pakistan International Airlines, QR-Qatar Airways, BI-Royal Brunei Airlines, RA-Royal Nepal Airlines, SV-Saudi Arabian Airlines, ZH- Shenzhen Airlines, MI-SilkAir, SQ-Singapore Airlines, UL-SriLankan Airlines, FD- Thai AirAsia, TG-Thai Airways International, TR-Tiger Airways, HY-Uzbekistan Airways, VN-Vietnam Airlines, MF-Xiamen Airlines, IY-Yemenia					
Destination: 65 Africa- 3 Asia- 36 Europe- 8 Middle East- 10 South Pacific- 8	**Africa:** Cairo International, Johannesburg O.R. Tambo International, Mauritius - Sir Seewoosagur Ramgoolam In **Asia:** Alor Setar, Banda Aceh Bandung - Husein Sastranegara, Bangkok Suvarnabhumi International, Beijing Capital International, Bengaluru International, Bintulu, Brunei International, Chennai International ,Chiang Mai International Colombo - Bandaranaike International, Delhi Indira Gandhi International, Dhaka Diosdado Macapagal International, Guangzhou Baiyun International, Guilin, Haikou, Hangzhou Xiaoshan International, Hanoi Noi Bai International, Ho Chi Minh City - Tan Son Nhat Internat, Hong Kong International, Hyderabad International, Islamabad – Chaklala, Jakarta Soekarno Hatta International, Karachi Quaid-e-Azam International, Kathmandu, Kota Bharu, Kota Kinabalu International, Krabi, Kuala Terengganu, Kuantan, Kuching, Kunming Wujiaba, Labuan Island, Langkawi, Macau International, Male International, Manado - Sam Ratulangi, Manila Ninoy Aquino International, Medan, Miri, Mumbai International, Nanning Ngurah Rai - Bali International, Osaka Kansai International, Padang, Palembang, Pekanbaru, Penang International, Phnom Penh International, Phuket International, Sandakan, Senai Airport, Seoul Incheon International, Shanghai Pudong International, Shenzhen Baoan International, Sibu, Siem Reap International, Singapore Changi, Solo - Adi Sumarmo Wiryokusumo, Surabaya – Juanda, Taiwan Taoyuan International, Tashkent International, Tawau, Tianjin Binhai International, Tiruchirapally, Tokyo Narita International, Ujung Pandang – Hasanuddin, Vientiane - Wattay International, Xiamen Gaoqi International, Yangon International, Yogyakarta **Europe:** Amsterdam Schiphol, Baku, Frankfurt, London Heathrow, London Stansted, Paris Charles de Gaulle, Rome Fiumicino Leonardo Da Vinci, Stockholm					

Kuala Lumpur International Airport	
Categories	**Details**
	Arlanda **Middle East:** Abu Dhabi International, Bahrain International, Dammam - King Fahd International, Doha International, Dubai International, Jeddah King Abdul Aziz, Kuwait International, Riyadh King Khalid International, Sharjah International, Tehran - Imam Khomeini International **South Pacific:** Adelaide Auckland International, Darwin International, Gold Coast – Coolangatta, Melbourne Tullamarine International, Perth, Port Moresby – Jacksons, Sydney Kingsford Smith International
Regional Analysis	Africa : Eastern Africa 0.63% Africa : North Africa 0.32% Africa : Southern Africa 0.47% Asia : Central Asia 1.11% Asia : North East Asia 14.08% Asia : South Asia 7.91% Asia : South East Asia 59.49% Europe : Eastern/Central Europe 0.47% Europe : Western Europe 4.91% Latin America : Lower South America 0.16% Middle East 5.7% North America 0. 47% Southwest Pacific 4.27%

Kota Kinabalu International						
Categories	**Details**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	3.17	3.224	3.112	3.484	3.578	76.31
International passenger	0.607	0.611	0.747	0.916	0.979	20.88
Terminal passengers	3.777	3.835	3.859	4.4	4.557	97.18
Transit passengers	0.142	0.14	0.156	0.137	0.132	2.82
Total passengers	3.918	3.975	4.015	4.537	4.689	100.00
Airline Serving: 13	AK-AirAsia, OZ-Asiana Airlines, 5J-Cebu Pacific Air, KA-Dragonair, QZ-Indonesia AirAsia, 3K-Jetstar Asia Airways, KE-Korean Air, MH-Malaysia Airlines, MASWings, BI-Royal Brunei Airlines, MI-SilkAir, TR-Tiger Airways, TH-Transmile Air Services					
Destination: Asia- 24	**Asia:** Bintulu Brunei International, Cebu Diosdado Macapagal International, Hong Kong International, Jakarta Soekarno Hatta International, Kaohsiung International, Kuala Lumpur International, Kuching, Labuan Island, Lahad Datu, Macau International, Manila Ninoy Aquino International, Miri, Penang International, Sandakan, Senai Airport, Seoul Incheon International, Shenzhen Baoan International, Sibu, Singapore Changi, Taiwan Taoyuan International, Tawau, Tokyo Narita International					
Regional Analysis	Asia : North East Asia 17.69% Asia : South East Asia 82.31%					

Table 4-15 Malaysia's first 2 busiest-airport traffic data
Source:(ATI, 2009) and Author's calculation

Airline Capacity and Utilisation

Malaysia's airline-capacity had increased more than 50 % from year 2001 to 2006. The reason of this remarkable increase derived from the expansion of AirAsia, the first Malaysian low cost carrier. Regarding the low cost carrier's capacity, it had dramatically expanded from about a million seats available in 2001 to 9.2 million

seats available in 2006. For the load factor, schedule and low cost sectors performed quite well. The overall acquired more than 70 % load factor in 2006, especially, seats for chartered flights were sold almost fully utilised at 95% or more during 2003 to 2005.

'000 seats	2001	2002	2003	2004	2005	2006
Total Airline capacity	27,131.0	29,875.0	31,237.0	33,786.9	38,990.4	41,263.2
-Schedule (capacity)	23,045.0	25,349.0	26,110.0	28,486.9	28,761.4	28,018.0
-Charter (capacity)	3,142.0	3,393.0	3,427.0	3,500.0	3,643.0	3,997.0
-Low cost carriers (capacity)	944.0	1,133.0	1,700.0	1,800.0	6,586.0	9,248.2
Total Airline seats sold	17,600.0	19,211.0	20,637.0	24,038.4	29,202.6	30,037.0
-Schedule (utilisation)	14,104.0	15,229.0	16,115.0	19,480.4	20,848.4	19,059.0
-Charter (utilisation)	2,878.0	3,206.0	3,341.0	3,325.0	3,460.9	3,599.0
-Low cost carriers (utilisation)	618.0	776.0	1,181.0	1,233.0	4,893.4	7,379.0
% Load Factor	2001	2002	2003	2004	2005	2006
Total airline seats sold	64.9	64.3	66.1	71.1	74.9	72.8
-Schedule	61.2	60.1	61.7	68.4	72.5	68.0
-Charter	91.6	94.5	97.5	95.0	95.0	90.0
-Low cost carriers	65.5	68.5	69.5	68.5	74.3	79.8

Table 4-16 Malaysia's airline capacity, utilisation, and load factor: 2001-2006
Source: (ICAO, 2009a), (Euromonitor, 2009b)and Author's calculation

Airline Seat Class and Distance

Throughout the review period, though economy seat class dominated the biggest share, the percentage breakdown shows significant increase of around 11% through 6 year review period in the sale of business class seats. For the distance flown, the major share still belongs to short haul one at about 60% share sales volume. The major reason to this was all routes operated by low cost carriers are short haul ones. In contrast, long haul seat sold had declined from 40.5% in 2001 to 32.5% in 2004, then, rose again in 2005 before dropped to 37% in 2006.

% Breakdown	2001	2002	2003	2004	2005	2006
Airline seats sold by class	100.0	100.0	100.0	100.0	100.0	100.0
-Economy class	84.6	84.0	82.9	82.9	84.4	86.4
-Business class	8.2	8.4	8.6	8.6	8.6	9.1
-First class	7.2	7.6	8.5	8.5	7.0	4.5
Airline seats sold by distance	100.0	100.0	100.0	100.0	100.0	100.0
-Short haul	59.5	63.5	67.0	67.5	59.5	63.0

% Breakdown	2001	2002	2003	2004	2005	2006
-Long haul	40.5	36.5	33.0	32.5	40.5	37.0

Table 4-17 Malaysia's airline sales volume by seat class and distance: % Breakdown: 2001-2006
Source: (Euromonitor, 2009b)

Airline Performance

Fleet size

Malaysian Airlines, the flag carrier, still acquired the biggest fleet sizes of 95 aircrafts in 2006, followed by AirAsia operated a total of 49 aircrafts. AirAsia fleet sizes will be added by 60 confirmed order of Airbus A320s but they will be shared with its two sister airlines, Thai AirAsia and Indonesia AirAsia.

Load factor

The best performance in load factor fell to AirAsia at around 78 % load factor, followed by Malaysian Airline of 70 % load factor.

Passengers carried

Undoubtedly, Malaysian Airline, as a national carrier with a biggest fleet operating both long and short haul flights, carried the most number of passengers. AirAsia, despite the lower number of aircrafts, experienced a doubling in its passengers flown over the period. The growth was dedicated to its continuous expansion of routes and number of aircrafts.

Airline Market Shares

Despite the biggest market share, more than 70%, Malaysian Airline acquired, AirAsia had continuously invaded into Malaysian Airline's account by increasing share from 2.6% in 2002 to about 5.5% in 2006. This could continue as AirAsia still keep expanding in both domestic and regional routes with extremely lower airfares, was a key factor harming the national carrier, Malaysian Airlines. The modified HHI shows significant decrease in market concentration. Higher competition emerged due to the stronger performance of AirAsia.

Performance indicator	Sale Value(Local currency millions)	Fleet size	Passenger carried (million)	% average load factor
Malaysian Airlines System Bhd	15.5	95.0	15.5	70.0
AirAsia Sdn Bhd	5.7	49.0	5.7	78.0
Berjaya Group Bhd	0.1	4.0	0.1	40.0

Table 4-18 Malaysia's airline performance indicator: 2006
Source: (Euromonitor, 2009b) and Author's calculation

% Breakdown	2002	2003	2004	2005	2006
Malaysian Airlines System Bhd	80.9	79.9	77.8	75.4	77.8
AirAsia Sdn Bhd	2.6	3.7	3.9	5.5	5.4
Berjaya Group Bhd	-	0.2	0.2	0.2	0.2
Others	16.5	16.2	18.0	18.8	16.7
Total	100.0	100.0	100.0	100.0	100.0
Modified HHI (by excluding market shares of 'others')	9,396.6	9,110.4	9,024.5	8,668.4	8,765.1

Table 4-19 Malaysia's airline market share : 2002-2006
Source: (Euromonitor, 2009b)

Myanmar

Myanmar (Burma) occupies most of the west cost of the Indochinese region, extending from the northern Chinese border, with India and Bangladesh to the west, down to the 600km-long of coastal territory which seals off most of Thailand from the Indian Ocean. The climate is tropical and mainly humid. Its capital was Rangoon (Yangon) but the government moved it to Pyinmana in 2005.

Political structure and risk

Myanmar, or Burma as it was known until 1988, was run as a one-party socialist state until September 1988, when a military coup deposed the administration and declared martial law. A 485-member Constituent Assembly was formed in May 1990, but never met. A new constitution was passed by a referendum in 2008. Elections are planned to be held in 2010. Currently, the country is ruled by the military through the State Peace and Development Council. Mynmar's head of state is General Than Shwe and head of government is Thein Sein.

Current political risks are remaining under house arrest of the opposition party's leader, violent protest, and Muslim discrimination. Aung San Suu Kyi, the leader of the opposition group known as the National League for Democracy (NLD), still remains under house arrest. Though the public argues that it has fulfilled the demands of the NLD but the military dominates the group drafted the new constitution, which bans Suu Kyi from high office. Violent demonstrations erupted in 2007 which were put down just as violently by the junta.

Regional/International Conflicts

Western countries imposed additional sanctions in 2007 in response to the military's crackdown on demonstrators. Official aid sends to Myanmar are one of the lowest given to any poor country. Myanmar's reputation as a big producer of illegal drugs also troubles its relations with the international community. Much of the world's heroin originates in the "golden triangle", a region bordering Myanmar, Laos and Thailand. Outsiders believe that the Myanmar government itself benefits from this kind of activity. The government's abuses of human rights have raised concerns among Western countries. Strained relations with Western countries led the US and the EU to renew sanctions against it in 2007 but so far such effort appears to have had little effect on the ruling military government.

Economic situation

Myanmar is classified as one of the world's least developed countries. Since the 'open door' initiatives were introduced after 1998, the country has grown more strongly than the previous. However, the overvalued official exchange rate makes an objective assessment of the economy difficult. Myanmar's economic policy continues to focus on central planning and import substitution with unresolved difficulties including large public sector debts, a collapsed market exchange rate, poor economic management, a crisis in the poorly developed and managed private banking sector, uncontrolled inflation, poverty, weak foreign investment, good governance issues,

failure of due process in the legal system, non-existent rule of law, arbitrary policy-making and severe trade restrictions.

In 2007, agriculture accounts for a major share of GDP, and about 70% of the population live in rural areas. The involvement of the private sector has been extended in production, imports and the distribution of inputs such as seeds and farming equipment. Industry is dominated by subsidised, state-owned firms and contributes about 15% of GDP. The sector has been impaired in recent years by trade and investment sanctions imposed by the EU, US and others. More than 150 factories in the country's small garment industry have been forced to close. The main exports of Burma are natural gas (around 30 % of total exports risen sharply on the basis of higher world prices), pulses and forest products. Consumer boycotts and trade boycotts have impacted heavily on several private sector activities, particularly production and export of garments and textiles. Farmers are being encouraged to cultivate crops such as buckwheat, tea and paddy. However, military restrictions on the movement of food and people prevent farmers from finding markets for their new alternative crops. Poppies are the primary income source for about 350,000 families in the country's opium-producing region.

In Myanmar, the average applied tariff is relatively low. However, there are major non-tariff barriers including license requirements, quantitative restrictions and foreign exchange controls. Myanmar maintains an extensive investment licensing process which is characterised by strict and time-consuming requirements. Foreign companies must also get a permit to trade. Myanmar's lack of progress towards political reform, poor economic management and unpredictable application of economic policies are the most severe obstacle to the growth of closer trade and investment ties with other countries. The military regime that governs Myanmar pays little attention to the condition of the economy. They change the tax regime and export regulations arbitrarily and without warning. The longer-term prospects for sustained growth are good, but only if the government moves toward policies that reduce the macroeconomic imbalances and structural distortions.

Air Transport Industry

Myanmar has around 21 operating airports but Yangon and Mandalay airports play the most significant role as they are the busiest airports in the country. After the sanction of US and Europe, a number of intercontinental flights have been cut off. Currently, there are 14 airlines; 4 from Myanmar, 3 from China, 1 from India, 1 from Malaysia, 3 from Thailand and 2 from Singapore, serving at Yangon and 4 Airlines; 3 from Myanmar and 1 from China, serving at Mandalay. As a result, both airports are linked with regional destination in Asia only. (See Table 4-20)

Yangon International Airport	
Categories	**Details**
Airline Serving: 14	W9-Air Bagan, CA-Air China, 6T-Air Mandalay, PG-Bangkok Airways, CZ-China Southern Airlines, Indian Airlines, 3K-Jetstar Asia Airways, MH-Malaysia Airlines, AE-Mandarin Airlines, UB-Myanma Airways, 8M-Myanmar Airways International (MAI), MI -SilkAir, FD-Thai AirAsia, TG-Thai Airways International
Destination: Asia- 22	**Asia:** Bangkok Suvarnabhumi International, Calcutta International, Dawe, Guangzhou Baiyun International, Heho, Kawthaung, Kengtung, Kuala Lumpur International, Kunming Wujiaba, Kyaukpyu, Lashio, Loikaw, Magwe, Mandalay – Chanmyathazi, Maulmyine, Myeik, Myitkyina, Nyaung-U, Singapore Changi, Sittwe, Taiwan Taoyuan International, Thandwe
Regional Analysis	Asia : North East Asia 2.13% Asia : South Asia 0.53% Asia : South East Asia 96.81%

Mandalay - Chanmyathazi Airport	
Airline Serving: 4	W9-Air Bagan, 6T-Air Mandalay, MU-China Eastern Airlines, UB-Myanma Airways
Destination: Asia- 12	**Asia:** Bhamo, Heho, Kalemyo, Kengtung, Khamti, Kunming Wujiaba, Lashio, Magwe, Myitkyina, Nyaung-U, Tachilek, Yangon International
Regional Analysis	Asia : North East Asia 1.52% Asia : South East Asia 98.48%

Table 4-20 Myanmar's first 2 busiest airport traffic data
Source:(ATI, 2009) and Author's calculation

According to the database, there are 5 operating airlines in Myanmar, which are either solely or partly owned by the government-linked enterprises. One of them, United Myanmar Airlines, has the deficient data and is found disappear from the published flight schedule. The rest of them are mainly serving domestic routes with few international services, except Myanmar Airways International (MAI) which solely serves international routes. The biggest airlines, in term of fleet size, are Air Bagan and Myanma Airways. Most of their aircrafts are single-aisle and regional western-built aircrafts. Since being sanctioned by many western developed countries,

the tourism market has been contracted. A number of international route have been suspended.

Airline	Route served	Operational period	Fleet
Air Bagan	Domestic links Yangon and Mandalay with 16 destinations and International services which previously linked Yangon with Bangkok, Incheon and Singapore are currently suspended.	Nov 2004 – present	A310-200: 2 ATR42-320: 2 ATR72-210: 1 Fokker-100: 2
Air Mandalay	Domestic links Yangon with 10 destinations and International services to Chain Mai of Thailand	Oct 1994 – present	ATR42-320: 1 ATR72-210: 2
Myanma Airways	Domestic: serve all 21 domestic routes	1948 – present	ATR42-320: 1 ATR72-210: 1 ATR72-500: 2 F27 Mk600: 1 F27 Mk4000: 2
Myanmar Airways International	International: link Yangon with Bangkok, Kuala Lumpur and Singapore	Aug 1993 – present	A320-200: 2
United Myanmar Airlines	International: from Yangon to Bangkok, Hong Kong, Kuala Lumpur and Singapore, operating on triangular routings originating in Yangon and returning to the capital via Mandalay.	2004 – n/a	n/a
Yangon Airways	Domestic: link Yangon with 13 destinations	Oct 1996 – present	ATR72-210: 2

Table 4-21 Myanmar's operating-carrier data
Source:(ATI, 2009)

Philippines

The Philippines consists of 11 large islands and some 7,000 smaller islands. The Philippines lies around 800km off the coast of Indo-China, northeast of Papua New Guinea and north of Indonesia. The group of islands covers 900km in length from north to south. The capital is Manila.

Political structure and risk

The Philippines' head of state and government is elected for a six-year term by universal mandate and then appoints a cabinet. Congress has two chambers. The House of Representatives has at most 260 seats elected for a three-year term, 208 seats in single-seat constituencies and 52 seats chosen to party-lists according to

proportional representation. The Senate has 24 members, elected for a six-year term by proportional representation, half of them renewed every three years. At the present, the government is formed by a coalition of shifting party alliances of which the dominant is the Lakas-Christian Muslim Democrats (Laskas-CMD). The existing President is Gloria Macapagal-Arroyo.

Regarding the political risks, the government continues to battle against various groups of terrorists and rebels. The peace negotiations with the Moro Islamic Liberation Front in Mindanao continue. The army is fighting with the Abu Sayyaf Jihadist group and other Muslim groups in the country. The democratic system is dominated by the country's influential political clans. The dynastic character of Philippine politics weakens the efforts of reformers. There have been twelve coup attempts in the past 22 years. Corruption scandals have weakened the government's influence.

Regional/International Conflicts

The Philippines claims the Malaysian territory of Sabah. The dispute has been dormant since the late 1970s. The Philippines also claims the Spratly Islands in the South China Sea, where oil exploration has been in progress.

Economic situation

The Philippines' economic growth has lagged behind the fast-growing economies in other Asia countries during the past 30 years. Past economic policies and political instability delayed growth by discriminating against agriculture and discouraging investment in human capital. These policies, in turn, sustained powerful interest groups that intend to block or delay economic reform. The Philippines began to undertake political and economic reforms in late 1980s and early 1990s, including accelerating the deregulation and opening its economy. Growth started to pick up in 1995 but fell again from the Asian financial crisis in 1997. Overall, its growth rate in the decade prior to the Asian financial crisis was just over 3 % per annum. The

Philippine economy had its best year in more than a decade in 2007. The poverty has still been a serious problem. More than 25 million people live on less than US$1 per day, an increase of 16% since 2003.

The Philippines is a lower middle-income country. It is a resource-rich country in which agriculture's share of national output continues to decline but is larger than in Singapore, Malaysia or Thailand. Agriculture contributes 14.2% of the country's GDP and employs slightly more than one third of its workforce. A programme of land redistribution was begun in 1998 but only about 10% of the country's arable land has been transferred. The share of the industrial sector has fallen slightly since 1987 to 32 % of output, while the share of manufactures has stayed at around 23 % of output. The services sector has increased to about 53 % of GDP in 2004. The product mix in manufacturing is changing in the same direction as in Malaysia, Singapore and Thailand, although at a slower pace. The Philippines' exports are concentrated in manufactures, mainly electronic circuits, other electrical machines, computer, telecommunications, and office equipment, clothing, chemicals and agricultural products. A key driver in the expansion of the Philippines services sector has been the business process outsourcing industry, particularly offshore call-centre operations that have emerged since the deregulation of its telecom industry in the mid-1990s. By 2004, the Philippines had already captured 20 % of the total world market in contact centre services. The Philippines' comparative advantage in this area derives from its educated workforce's competency in English and other languages. Transfer of funds from overseas Philippines' workers also account for a significant share of the Philippines' foreign exchange earnings. The Philippines is the second largest labour-exporting country in the world after Mexico. About 7.5 million Filipinos, or almost 9% of the total population, are classified as Overseas Filipino Workers scattered in 182 foreign countries.

The Philippines made progress in tariff liberalisation through a series of reform programs began in 1995. However, many tariffs that had previously been lowered were raised, especially from late 2003. The simple average most favoured nation tariff fell from 9.7 % in 1999 to 5.8 % in 2003 but rose to 7.5 % in 2005. The average applied tariff is relatively low by developing country standards but coexists with tariff peaks and escalation in sensitive sectors, particularly agriculture. There is

recent evidence of non-tariff barriers, again concentrated on agricultural products. Foreign participation in government procurement is only allowed when domestic goods and services are unavailable. Protection is much higher in trade in services than trade in goods. Like Indonesia, a weak domestic and regulatory environment is now perhaps a bigger obstacle to trade and FDI than formal market access barriers. In response to the 1997 Asian financial crisis the Philippines opened retail trade and distribution business to foreign equity investment. In addition, the Philippines has opened private construction in the domestic market to foreign companies. Since then, the Philippines investment regime has not changed substantially. It uses a negative list of areas where FDI is restricted by the Philippines Constitution (including utilities and bans on land ownership by foreigners) or restricted on grounds of national security, defence, public health, safety, and morals and to protect local small and medium enterprises. The Philippines has recently established a one-stop service to assist foreign and other investors find their way through the unclear and time-consuming regulations and procedures required by various government bodies.

Air Transport Industry

The two busiest airports in Philippines are Manila Ninoy Aquino International and Mectan-Cebu International. The airport is the main hub of Philippines' airline industry links the country with 4 continents. There are 48 airlines serving at this airport. Metac-Cebu International plays significant roles on supporting attractive tourism places in Cebu. Most traffic are domestic flights, serving by Filipinos carriers. Considering the traffic at Manila International, the numbers of international passenger are nearly equal to the domestic passenger numbers. However, the domestic traffic witnesses almost 60% growth, whilst, the international one has around 34 % growth during 2004-2008. The remarkable growth of domestic traffic could be described by the emergence of LCC in the market, which offers lower ticket price and drives more demand. (See Table 4-22)

Manila Ninoy Aquino International Airport						
Categories	Details					
Traffic Statistics (millions):	2004	2005	2006	2007	2008	% total

Manila Ninoy Aquino International Airport

Categories	Details					
Domestic passenger	6.741	6.972	8.159	9.707	10.720	48.67
International passenger	8.416	9.222	9.767	10.724	11.273	51.18
Terminal passengers	15.157	16.194	17.926	20.431	21.994	99.85
Transit passengers	0.03	0.022	0.017	0.037	0.033	0.15
Total passengers	15.187	16.216	17.942	20.468	22.027	100.00

Airline Serving: 48

LD-Air Hong Kong, NX-Air Macau, PX-Air Niugini, 2P-Air Philippines, OZ-Asiana Airlines, CX-Cathay Pacific, 5J-Cebu Pacific Air, CI-China Airlines, CZ-China Southern Airlines, CS-Continental Micronesia, KA-Dragonair, EK-Emirates, EY-Etihad Airways, BR-EVA Air, GF -Gulf Air, HA-Hawaiian Airlines, UO-Hong Kong Express Airways, JO-JALways ,JL-Japan Airlines, 9W-Jet Airways, 3K-Jetstar Asia Airways, KL-KLM Royal Dutch Airlines, KE-Korean Air, KU-Kuwait Airways, MH-Malaysia Airlines, AE-Mandarin Airlines, NW-Northwest Airlines, PR-Philippine Airlines, QF-Qantas, QR-Qatar Airways, BI-Royal Brunei Airlines, SV-Saudi Arabian Airlines, DG-Seair, SQ-Singapore Airlines, Z2- Styrian Spirit, TG-Thai Airways International

Destination: 74
Asia- 57
Europe- 1
Middle East- 6
North America- 4
South Pacific- 6

Asia:
Bacolod, Bangkok Suvarnabhumi International, Basco, Beijing Capital International, Brunei International, Busan - Gimhae International, Busuanga, Butuan, Cagayan De Oro, Calbayog Catarman, Caticlan, Cauayan, Cebu, Chubu International, Cotabato, Davao International, Dipolog, Dumaguete, El Nido, Fukuoka International, General Santos International, Guangzhou Baiyun International, Ho Chi Minh City - Tan Son Nhat Internat, Hong Kong International, Iloilo, Jakarta Soekarno Hatta International, Kalibo, Kaohsiung International, Kota Kinabalu International, Kuala Lumpur International, Laoag International, Legaspi, Macau International, Marinduque, Naga, Ormoc, Osaka Kansai International, Ozamis, Penang International, Puerto Princesa, Roxas, San Jose, Seoul Incheon International, Shanghai Hongqiao International, Shanghai Pudong International, Singapore Changi, Surigao, Tablas, Tacloban, Tagbilaran, Taiwan Taoyuan International, Tokyo Narita International, Tuguegarao, Virac, Xiamen Gaoqi International, Zamboanga
Europe:
Amsterdam Schiphol
Middle East:
Abu Dhabi International, Bahrain International, Dammam - King Fahd International, Doha International, Dubai International, Riyadh King Khalid International
North America:
Honolulu International, Los Angeles International, San Francisco International, Vancouver International
South Pacific:
Brisbane International, Guam International, Melbourne Tullamarine International, Palau International, Port Moresby – Jacksons, Sydney Kingsford Smith International

Regional Analysis	Asia : North East Asia	17.1%
	Asia : South East Asia	69.09%
	Europe : Western Europe	0.47%
	Middle East	7.73%
	North America	2.34%
	Southwest Pacific	3.28%

Mactan-Cebu International Airport

Categories	Details
Airline Serving: 10	2P-Air Philippines, OZ-Asiana Airlines, CX-Cathay Pacific, 5J-Cebu Pacific Air, KE-Korean Air, MH-Malaysia Airlines, PR-Philippine Airlines, QR-Qatar Airways, MI-SilkAir, Z2-Styrian Spirit
Destination: Asia- 12 Middle East- 1	**Asia:** Bacolod, Butuan, Cagayan De Oro, Caticlan, Cotabato, Davao International, Diosdado Macapagal International, Dipolog, Dumaguete, General Santos International, Hong Kong International, Iloilo Kota Kinabalu International, Legaspi, Manila Ninoy Aquino International, Ozamis, Puerto, Princesa, Seoul Incheon International, Singapore Changi, Surigao, Tacloban, Tokyo Narita International, Zamboanga **Middle East:** Doha International

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Mactan-Cebu International Airport		
Categories	**Details**	
Regional Analysis	Asia : North East Asia Asia : South East Asia Middle East	9.43% 88.68% 1.89%

Table 4-22 Philippines' first 2 busiest airport traffic data
Source:(ATI, 2009) and Author's calculation

Airline Capacity and Utilisation

From year 2002-2007, Schedule carries have increased seat capacity by more than 200%, while, Low-cost carriers had driven a significant growth in seat capacity at about 30 % during 2005 -2007. Scheduled flights accounted for 93% of overall airline seat available, followed by Low-cost carriers accounted for 6% of total airline capacity, while, the least one, chartered flights had declined from 47.7k seats available in 2002 to 43.8k seats available in 2007. For load factor, the low-cost airline shows the most success in filling up their seat at around 88% in 2007. Airline load factor for schedule carriers had grew by 6.1 % over the review period, while the charter airline improved their load factor at around 30 %.

'000 seats	2002	2003	2004	2005	2006	2007
Total Airline capacity	4,091.1	3,974.2	5,365.2	7,289.4	8,691.2	8,785.6
-Schedule (capacity)	4,043.4	3,929.0	5,319.8	6,828.5	8,147.0	8,200.5
-Charter (capacity)	47.7	45.2	45.4	45.9	46.2	43.8
-Low cost carriers (capacity)	-	-	-	415.0	498.0	541.3
Total Airline seats sold	2,992.4	3,195.0	4,313.3	5,607.3	6,568.0	7,028.5
-Schedule (utilisation)	2,968.4	3,175.6	4,285.9	5,352.0	6,155.2	6,518.1
-Charter (utilisation)	24.0	19.4	27.4	32.6	39.8	35.1
-Low cost carriers (utilisation)	-	-	-	222.7	373.0	475.3
% Load Factor	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Total airline seats sold	73.1	80.4	80.4	76.9	75.6	80.0
-Schedule	73.4	80.8	80.6	78.4	75.6	79.5
-Charter	50.3	43.0	60.4	71.0	86.1	80.2
-Low cost carriers	-	-	-	53.7	74.9	87.8

Table 4-23 Philippines' airline capacity, utilisation, and load factor: 2002-2007
Source: (ICAO, 2009a), (Euromonitor, 2009b) and Author's calculation

Throughout 6 years of the review period, the economy class seat had played a significant role in driving the slightly higher growth from 86% share in 2002 to 88.2% share in 2007. Business class seats accounted around 10% of total airline seats sold, followed by first class seats sold's share at about 2 %. For the distance flown, long haul flights' share of total seats sold had declined gradually from 19.9% in 2002 to 14.4% in 2007. In contrast, short haul flights one had jumped the number of share from year 2002 up to 5.5% in year 2007.

% Breakdown	2002	2003	2004	2005	2006	2007
Airline seats sold by class	100.0	100.0	100.0	100.0	100.0	100.0
-Economy class	86.3	86.8	87.1	87.0	87.5	88.2
-Business class	10.9	10.7	10.7	11.0	10.5	9.9
-First class	2.8	2.5	2.2	2.0	2.0	1.9
Airline seats sold by distance	100.0	100.0	100.0	100.0	100.0	100.0
-Short haul	80.1	81.0	82.0	82.5	85.5	85.6
-Long haul	19.9	19.0	18.0	17.5	14.5	14.4

Table 4-24Philippines' airline sales volume by seat class and distance: % Breakdown: 2002 2007
Source: (Euromonitor, 2009b)

Airline Performance

Fleet size

Philippines Airlines, as the oldest carrier in Asia, has the largest fleet size with 34 aircraft followed by Cebu Pacific which owns 16 aircraft in its fleet. In 2005, Asian Spirit Airlines, as a low lost carrier, is in the third rank of fleet size with thirteen aircraft operated.

Load factor

Three from five airlines in the country achieved more than 70% load factor. The best performance operator in load factor belongs to Philippines Airlines which is of 75%. This can be described by its high number of routes across the country and high brand loyalty as well. The lowest load factor performance operator is Forum Pacific Inc, which operates Air Philippines.

Passengers carried

Philippines Airline posts the country leader in number of passengers flown with more than 5 million, followed by Cebu Pacific with 4 million, and Air Philippines with 1 million. The increase in number of tourist is the key to drive number of passengers flown growth.

Airline Market Shares

Despite Philippines Airline, the largest and oldest airline in the country, acquiring the biggest airline passenger market share, its changed market share over the period of review shows the remarkable regression. Its market share fell 4.2 % over 5 years. Cebu Air and South East Asian Airlines had accounted for the positive growth rate of market share, while Philippines Airlines, Air Philippines, and Asian Spirit Airlines had experienced the gradually fall of their market shares.

Performance indicator	Sale Value(Local currency millions)	Fleet size	Passenger carried (million)	% average load factor
Air Philippines	5,297.3	7.0	1.1	72.0
Asian Spirit	1,333.0	13.0	0.4	55.0
Cebu Pacific	13,795.0	16.0	6.6	84.0
Philippine Airlines	28,812.6	34.0	7.2	80.0
South East Asian Airlines	1,168.4	11.0	0.2	62.0

Table 4-25 Philippines' airline performance indicator: 2007
Source: (Euromonitor, 2009b)and Author's calculation

% Breakdown	2003	2004	2005	2006	2007
Philippine Airlines Inc	55.5	43.9	38.5	33.1	31.9
Cebu Air Inc	28	19.1	13.1	11.1	15.3
Forum Pacific Inc	11.2	9.3	7.6	6.4	5.9
Asian Spirit Airlines	3	2.2	1.8	1.5	1.5
South East Asian Airlines	1	1	0.9	1.2	1.3
Others	1.2	24.5	38.1	46.6	44.1
Total	100.0	100.0	100.0	100.0	100.0
Modified HHI (by excluding market shares of 'others')	4,097.4	4,182.9	4,477.7	4,430.8	4,129.7

Table 4-26 Philippines' airline market share : 2003-2007
Source: (Euromonitor, 2009b)

Singapore

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Singapore is a small and highly urbanised city-state southeast of the Malaysia peninsular. The country has extraordinary wealth and strategic position. Its harbour facilities, oil processing and market, advanced telecommunications systems, trading, and financial services play vital and central roles in the development of the region.

Political structure and risk

The Republic of Singapore achieved independence from the Commonwealth in 1965. The president is elected for a six-year term by the people. The prime minister and the cabinet are appointed by the president and are responsible to parliament. The Parliament has up to 96 members, 84 members elected for a five-year term in single-seat and multi-seat constituencies and up to nine members appointed by the president and up to three Non-Constituency MPs from opposition political parties appointed to ensure a minimum number of opposition representatives. At the present, the ruling party is the People's Action Party (PAP). The head of state is Sellapan Rama Nathan and head of government is Lee Hsien Loong.

As a predominately Chinese society, the political risk of Singapore is being concerned as it could eventually be isolated from its Muslim neighbouring countries. In addition, there are concerns about the increased concentration of power among family members of the Lee Kuan Yew, modern Singapore's founding father.

Regional/International Conflicts

The country's relations with Malaysia improved after Singaporean firms were allowed to buy into strategic businesses in Malaysia. The city-state's three million people are predominately Chinese while the neighbouring countries of Indonesia and Malaysia are Malay-dominated and much larger with a combined population of around 230 million. Relations with Thailand are also difficult as a result of political interference.

Economic situation

Singapore's growth began during the 1960s. After independence in 1965, Singapore was facing with a lack of physical resources and a small domestic market. The Government depended shortly on import substitution, but very quickly adopted sound macroeconomic policies and a pro-business, pro-foreign investment, export-oriented economic policy framework combined with state-directed investments in strategic government-linked companies and state owned enterprises. Today, Singapore has a free market economy with a significant government presence. The government is gradually divesting its stake in government-linked companies. Singapore's growth rate averaged 9.2 % in the decade prior to the Asian financial crisis. Singapore has a liberal trade policy in goods with nearly no tariffs (only six tariff lines are subject to specific rates of duty). Singapore also has very few other border measures; most of which are maintained for health, security and environmental reasons, with the exception of rice which is subject to import licensing for reasons of maintaining food security and price stability. Singapore has restrictions in trade and foreign investment in services but has begun liberalising several service sectors, including business, financial, telecommunications, construction, tourism and travel related services. Singapore has a relatively open foreign investment regime for manufactured goods.

In the past 15 years, manufactures have provided around one quarter of total output. The product mix in manufactures has advanced from less skilled labour-intensive products such as textiles and clothing to more technologically advanced products. Value-added has increased in response to pressures from other regional manufacturers who have lower costs, especially labour costs. Electronics and electrical products and chemicals are the main manufactures. Main merchandise exports include electronics and electrical products (office machines and telecommunications) and petroleum. In 2008, manufacturing accounts for 27.8% of GDP but growth has slowed and continues to weaken. Pharmaceuticals and chemicals are among the most affected. The all-important electronics industry is also reporting decidedly slower growth with output of key products contracting. The service sector continues to expand but at a slower pace than in recent years. Financial services and tourism are the major service industries. The government set a target of 5% growth in

tourist arrivals in 2008 but the number has actually been dropping as the global economy weakens. Tourism accounts for about 6% of the economy and the city's long-term goal is to double revenue to US$30 billion by 2015. Singapore has also been expanding into a hub for regional asset management, health and education services. The government continues to push the city's development as a regional financial centre but the global financial crisis is hurting many banks. A further boost to growth could come from the decision to legalise casino gambling in spite of strong opposition. Analysts estimate that the economic benefits of legalisation could add US$190 million to GDP and create 13,000 jobs. Singapore seeks to double the number of visitors to 17 million in the next decade and casinos may play an important role.

Air Transport Industry

During 2004-2008, air transport industry in Singapore had experienced rapid growth of passenger number. At the end of the period, there are about 7.5 million passenger more comparing to those in 2004. The Singapore Changi International airport is the only one commercial airport in the country. The airport serves 64 airlines from 6 main continents and links 74 destinations around the world. In 2008, there are more than 37 million passengers use the airport, 95% are terminal passengers and 5% are transit passengers. (See Table 4-27)

Singapore Changi International Airport						
Categories	**Details**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
International passenger	28.606	30.72	33.368	35.221	36.288	96.27
Terminal passengers	28.606	30.72	33.368	35.221	36.288	96.27
Transit passengers	1.748	1.710	1.665	1.480	1.407	3.73
Total passengers	30.354	32.431	35.033	36.702	37.695	100.00
Airline Serving: 64	CA-Air China, AF-Air France, LD-Air Hong Kong, AI-Air India, IX-Air India Express, NQ-Air Japan, MK-Air Mauritius, PX-Air Niugini, HM-Air Seychelles, UM-Air Zimbabwe, AK-AirAsia, NH-All Nippon Airways, OZ-Asiana Airlines, PG-Bangkok Airways, Best Air, BG-Biman Bangladesh Airlines, BA-British Airways, 8F-Cardig Air, S1-Cargolux Airlines International, CX-Cathay Pacific, 5J-Cebu Pacific Air, CI-China Airlines, MU-China Eastern Airlines, CZ-China Southern Airlines, EK-Emirates, EY-Etihad Airways, BR-EVA Air, FY -Firefly, GA-Garuda Indonesia Airways, Z5-GMG Airlines, IJ-Great Wall Airlines, Indian Airlines, QZ-Indonesia AirAsia, JL-Japan Airlines, 9W-Jet Airways, JQ-Jetstar Airways, 3K-Jetstar Asia Airways, JX-Jett8 Airlines Cargo, KL-KLM Royal Dutch Airlines, KE-Korean Air, JT-Lion Airlines, LH-Lufthansa, MH-Malaysia Airlines, MP-Martinair, KZ-Nippon Cargo Airlines, NW-Northwest					

Singapore Changi International Airport	
Categories	**Details**
	Airlines, PR-Philippine Airlines, QF-Qantas, QR-Qatar Airways, BI-Royal Brunei Airlines, SV -Saudi Arabian Airlines, F4-Shanghai Airlines Cargo International, ZH -Shenzhen Airlines, MI-SilkAir, SQ-Singapore Airlines, UL-SriLankan Airlines, FD-Thai AirAsia, TG-Thai Airways International, TR-Tiger Airways, TK-Turkish Airlines (THY), UA-United Airlines, VF-ValuAir, VN-Vietnam Airlines, MF-Xiamen Airlines
Destination: 74 Africa- 4 Asia- 75 Europe- 13 Middle East- 5 North America- 2 South Pacific- 9	**Africa:** Harare International, Johannesburg O.R. Tambo International, Mahe Island, Mauritius - Sir Seewoosagur Ramgoolam In **Asia:** Ahmedabad, Balikpapan, Bandung - Husein Sastranegara, Bangkok Suvarnabhumi International, Beijing Capital International, Bengaluru International, Brunei International, Calcutta International, Cebu,Chengdu Shuangliu International, Chennai International,Chiang Mai International, Chongqing, Chubu International, Cochin International, Coimbatore, Colombo - Bandaranaike International, Da Nang, Davao International, Delhi Indira Gandhi International, Dhaka, Dili, Diosdado Macapagal International, Fukuoka International, Fuzhou, Guangzhou Baiyun International, Haikou, Hanoi Noi Bai International, Ho Chi Minh City - Tan Son Nhat Internat, Hong Kong International, Hyderabad International, Ipoh, Jakarta Soekarno Hatta International, Kaohsiung International, Karachi Quaid-e-Azam International, Kathmandu, Koh Samui, Kota Kinabalu International, Kuala Lumpur International, Kuala Terengganu, Kuching, Kunming Wujiaba, Langkawi, Macau International, Male International, Manado - Sam Ratulangi, Manila Ninoy Aquino International, Mataram – Selaparang, Medan, Mumbai International, Nanjing International, Nanning, Ngurah Rai - Bali International, Osaka Kansai International, Padang, Palembang, Pekanbaru, Penang International, Phnom Penh International, Phuket International, Semarang, Seoul Incheon International, Shanghai Pudong International, Shenzhen Baoan International, Siem Reap International, Solo - Adi Sumarmo Wiryokusumo, Subang - Sultan Abdul Aziz Shah ,Surabaya – Juanda, Taiwan Taoyuan International, Tiruchirapally, Tokyo Narita International, Trivandrum ,Xiamen Gaoqi International, Yangon International, Yogyakarta **Europe:** Amsterdam Schiphol, Athens International, Copenhagen Kastrup, Frankfurt, Istanbul/Atatürk International, London Heathrow, Manchester, Milan Malpensa, Moscow Domodedovo International, Munich International, Paris Charles de Gaulle, Rome Fiumicino Leonardo Da Vinci, Zurich **Middle East:** Abu Dhabi International, Doha International, Dubai International, Riyadh King Khalid International, Sharjah International **North America:** Los Angeles International, Newark Liberty International **South Pacific:** Adelaide, Auckland International, Brisbane International, Christchurch International, Darwin International, Melbourne Tullamarine International, Perth, Port Moresby – Jacksons, Sydney Kingsford Smith International
Regional Analysis	Africa : Eastern Africa 0.56% Africa : North Africa 0.23% Africa : Southern Africa 1.01% Asia : North East Asia 18.47% Asia : South Asia 8.11% Asia : South East Asia 48.65% Europe : Eastern/Central Europe 0.56% Europe : Western Europe 7.77% Middle East 3.72% North America 4.39% Southwest Pacific 6.53%

Table 4-27 Singapore's airport traffic data
Source:(ATI, 2009) and Author's calculation

Airline Capacity and Utilisation

Over the review period, total airline seat capacity had risen for more than 15

million seats. Obviously, the schedule airline occupied the most capacity at around 94% of the total capacity in 2004. The left over 6% capacity was shared 5.7% and 0.3% by the low cost airlines and charter airlines respectively. Interestingly, the low cost carrier, despite its first start in 2004, took 55% more seat capacity within a year after its first operation and reached almost 8 million seats, which accounts at around 16% of total capacity in 2007. For load factor, since schedule airline's 6 years operation, they had still experienced the lower than 70% load factor. The schedule carriers experienced sharpen fall in 2003 which caused by SARS crisis. In contrast, right after its start up, low-cost airlines still continuously produced the higher load factor at more than 70% annually.

'000 seats	2002	2003	2004	2005	2006	2007
Total Airline capacity	34,795.30	34,013.50	39,947.40	42,732.00	46,154.80	49,684.70
-Schedule (capacity)	34,773.6	33,996.0	37,624.0	39,128.8	40,772.2	41,750.4
-Charter (capacity)	21.7	17.5	23.4	22.2	22.7	24.7
-Low cost carriers (capacity)	-	-	2,300.0	3,581.0	5,360.0	7,909.6
Total Airline seats sold	23,214.2	19,771.5	24,657.3	26,521.5	30,166.8	33,028.6
-Schedule (utilisation)	23,207.7	19,766.2	23,040.3	24,007.9	26,408.0	27,168.1
-Charter (utilisation)	6.5	5.3	7.0	6.7	6.8	7.4
-Low cost carriers (utilisation)	-	-	1,610.0	2,507.0	3,752.0	5,853.1
% Load Factor	2002	2003	2004	2005	2006	2007
Total airline seats sold	66.7	58.1	61.7	62.1	65.4	66.5
-Schedule	66.7	58.1	61.2	61.4	64.8	65.1
-Charter	30.0	30.0	30.0	30.0	30.0	30.0
-Low cost carriers	-	-	70.0	70.0	70.0	74.0

Table 4-28 Singapore's airline capacity, utilisation, and load factor: 2002-2007
Source: (ICAO, 2009a), (Euromonitor, 2009b) and Author's calculation

Airline Seat Class and Distance

In 2002, economy class seat dominated the highest share and accounted for around 93.4% of the total seats sold. Its share had gradually increased at around 0.7% over 6 years. On the other hand, both business class and first class seat had witnessed the same positive growth trend in seat capacity over the same period. For the distance flown, as Singapore has no domestic market, long hauls flights occupied more than 90% share of the total traffic but its volume had been divided to the short haul one,

which increased at around 28% over the 6 years period.

% Breakdown	2002	2003	2004	2005	2006	2007
Airline seats sold by class	100.0	100.0	100.0	100.0	100.0	100.0
-Economy class	93.4	93.4	93.5	93.5	93.5	92.8
-Business class	6.1	6.1	6.0	6.0	6.0	6.7
-First class	0.5	0.5	0.5	0.5	0.5	0.5
Airline seats sold by distance	100.0	100.0	100.0	100.0	100.0	100.0
-Short haul	10.0	10.0	9.9	9.8	11.0	12.8
-Long haul	90.0	90.0	90.1	90.2	89.0	87.2

Table 4-29 Singapore's airline sales volume by seat class and distance: % Breakdown: 2002-2007
Source: (Euromonitor, 2009b)

Thailand

Thailand, the largest state in the Indo-Chinese region, has access to the sea in the far south, both east and west. With Myanmar accounting for almost all of its west shoreline with the Bay of Bengal, its access to that sea is limited to a long but narrow (150-km wide) strip. Its south links up with Malaysia. Its more extensive coastline is on the Gulf of Thailand, where it borders Cambodia in the east. In the northeast, it shares a border with Laos. The capital is Bangkok.

Political structure and risk

The National Assembly has two chambers. The House of Representatives has 400 members elected from single-seat constituencies and another 80 members elected by proportional representation. The Senate has 150 members; 76 are elected in single-seat constituencies and serve 6-year terms, and 74 are appointed by the Selection Committee and serve 3-year terms. HM King Bhumibol Adulyadej is the head of state. Head of government is Abhisit Vejjajiva.

In Thailand, there are still many of the divisions between rich and poor, rural and urban and populist and traditional that produced the current governmental crisis. Large-scale public demonstrations broke out again in 2009, putting great pressure on the current government. In the south of the country, relations between Muslims and non-Muslims are still tense. Several hundred people have been killed in the government's battle against militant Muslims. The continuing violence has harmed the country's image as a safe destination for tourists. In addition, the found-guilty ex-prime minister, who claims his innocent and out of country, is still support the opposition's political movement.

Regional/International Conflicts

The relations with Malaysia are sensitive because Malaysia concerns that the violence in southern Thailand could spill over its borders and has urged Thai government to resolve the insurgency. Thailand's relations with Myanmar are strained due to the influx of drugs and amphetamines from its neighbour. Similar problems exist with Laos. The existing serious conflict is between Cambodia, regarding the claim from both sides over the disputed area at their borders.

Economic situation

Thailand's economic started to grow rapidly in the 1960s. Following a recession in the mid-1980s, Thailand accelerated reforms to support discreet macroeconomic policies, increase privatisation and deregulation and further encourage exports. FDI started to flow in, and by 1991 Thailand was declared the 'fifth tiger' in the Asia-Pacific. The economy accelerated sharply during the second part of the 1980s with growth characterised by an export and investment boom. Its growth rate was almost 9 % for the decade prior to the Asian financial crisis. Currently, Thailand is an export-oriented free market economy.

Thailand has a higher average tariff, greater tariff dispersion and greater tariff escalation than the rest of the ASEAN-6 economies (Singapore, Malaysia, Indonesia,

Philippines, and Brunei Darussalam). It also maintains tariff rate quotas. In 2005 Thailand reviewed its tariff structure and it is expecting to complete tariff restructuring by the end of 2006. Non-tariff barriers are significant including requirements for licensing for certain categories of imports. Preference is provided to domestic suppliers for procurement. Thailand has increased the number of industrial standards that are based on international standards. The services sector is highly protected. Thailand maintains certain negative lists restricting foreign investment in certain activities, but it has been reducing the size of these lists.

From being an agriculture-based economy, Thailand has transformed into one of the most diverse economies in ASEAN. The share of industry, particularly manufactures, has grown at the expense of agriculture and mining. Manufacturing is now 35 % of output and agriculture is less than 10 %. In the 1980s the export oriented manufacturing sector was based on labour-intensive outputs such as textiles and clothing. The main merchandise export items now are electronics and electrical products, along with traditional exports such as agricultural products, other consumer goods, textiles and clothing and semi-manufactures. Tourism is Thailand's most outstanding service sector.

Exports of palm oil, rice and natural rubber all reported gains partly owing to higher prices on world markets. However, exporters of perishable products were seriously hurt by the closure of major airports in late November and early December 2008. The economy has been growing more slowly than its long-term average and the pace slowed sharply in 2008. Part of the problem has been the political uncertainties created by the frequent changes in government. The country had four different prime ministers during 2008. Foreign companies also put many new projects on hold. Finally, the economy has traditionally been export driven with exports representing more than 70% of GDP but weaker foreign demand (particularly in the USA) cut into export earnings. Growth in the manufacturing sector is falling as export orders dwindle. Some of the hardest-hit industries include electronics, petrochemicals and leather goods. Thailand's automobile industry is threatened by the rapid progress of competitors in China and Vietnam and the collapse of demand due to the global crisis. Growth in the service sector has fallen to less than 2% on an annual basis. Tourism suffered a fall in visitors due to the instability in the south and domestic disturbances

in Bangkok in the second half of 2008. The Thai economy is also burdened by a relatively weak banking sector with a high proportion of non-performing loans. Unemployment had been on a downward trend since the Asian financial crisis in the late 1990s. However, the number of jobless began to climb up again in recent years. Public spending has contracted due to the country's political problems.

Air Transport Industry

Thailand acquires the largest air transport market in ASEAN. Bangkok Suvarnabhumi International and Phuket International airports are ranked as the busiest airports in the country. In fact, Bangkok Suvarnabhumi is also the busiest airport in ASEAN as it serves more than 38 million passengers from 80 airlines which fly to/from almost 110 destinations in 7 continents. Its international traffic accounts for almost 78% of total one. The airport experienced some contraction in 2008 as a result from the political conflicts in the country and closure of the airport in early December 2008. Phuket International Airport served 5.7 million passengers in 2008. Two-third of all passenger travels in the country. There are 18 airlines flying to/from 15 destinations, mainly from Southeast Asia region. (See Table 4-30)

Bangkok Suvarnabhumi International Airport						
Categories	Details					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	-	-	11.423	7.908	6.993	18.12
International passenger	-	-	29.589	31.633	30.104	77.98
Terminal passengers	-	-	41.012	39.541	37.097	96.10
Transit passengers	-	-	1.789	1.669	1.507	3.90
Total passengers	-	-	42.800	41.210	38.603	100.00

	Bangkok Suvarnabhumi International Airport
Categories	**Details**
Airline Serving: 83	SU-Aeroflot-Russian Airlines, VV-AeroSvit Airlines, 4L-Air Astana, CA-Air China, AF-Air France, LD-Air Hong Kong, IX-Air India Express, NX-Air Macau, MD-Air Madagascar, AK-AirAsia, NH-All Nippon Airways, OZ-Asiana Airlines, OS-Austrian, PG-Bangkok Airways, Best Air, BG-Biman Bangladesh Airlines, BV-Blue Panorama Airlines, BA-British Airways, S1-Cargolux Airlines International, CX-Cathay Pacific, 5J-Cebu Pacific Air, CI-China Airlines, MU-China Eastern Airlines, CZ-China Southern Airlines, KB-Druk Air, MS-Egyptair, LY-El Al Israel Airlines, EK-Emirates, ET-Ethiopian Airlines, EY-Etihad Airways, BR-EVA Air, AY-Finnair W3-Flyhy Cargo Airlines, Z5-GMG Airlines, GF-Gulf Air, Indian Airlines, QZ-Indonesia AirAsia, IR-Iran Air, JL-Japan Airlines, 9W-Jet Airways, JQ-Jetstar Airways, 3K-Jetstar Asia Airways, KQ-Kenya Airways, KL-KLM Royal Dutch Airlines, KE-Korean Air, KU-Kuwait Airways, QV-Lao Airlines, LT-LTU International Airways, LH-Lufthansa, W5-Mahan Air, MH-Malaysia Airlines, MP-Martinair, 8M-Myanmar Airways International (MAI), KZ-Nippon Cargo Airlines, NW-Northwest Airlines, WY-Oman Air, OX-Orient Thai Airlines, PK-Pakistan International Airlines, 9Q-PB Air, PR-Philippine Airlines, QF-Qantas, QR-Qatar Airways, BI-Royal Brunei Airlines, RJ-Royal Jordanian Airlines, RA-Royal Nepal Airlines, SV-Saudi Arabian Airlines, SK-Scandinavian Airlines (SAS), F4-Shanghai Airlines Cargo International, ZH-Shenzhen Airlines, SQ-Singapore Airlines, XT-Skystar Airways, UL-SriLankan Airlines, LX-SWISS, FD-Thai AirAsia, TG-Thai Airways International, TR-Tiger Airways, UN-Transaero Airlines, TK-Turkish Airlines (THY), T5-Turkmenistan Airlines, B7-UNI Air, UA-United Airlines, HY-Uzbekistan Airways, VN-Vietnam Airlines
Destination: 108 Africa- 4 Asia- 75 Europe- 11 Latin America- 1 Middle East- 12 North America- 1 South Pacific- 4	**Africa:** Addis Ababa - Bole International, Cairo International, Nairobi - Jomo Kenyatta International, St Denis - Gillot **Asia:** Almaty International, Ashgabat, Beijing Capital International, Bengaluru International, Brunei International, Buri Ram, Busan - Gimhae International, Calcutta International, Chengdu Shuangliu International, Chennai International, Chiang Mai International, Chiang Rai International, Chubu International, Colombo - Bandaranaike International, Delhi Indira Gandhi International, Dhaka, Diosdado Macapagal International, Fukuoka International, Gaya, Guangzhou Baiyun International, Guilin, Hanoi Noi Bai International, Hat Yai International, Hiroshima, Ho Chi Minh City - Tan Son Nhat Internat, Hong Kong International, Hyderabad International, Islamabad – Chaklala, Jakarta Soekarno Hatta International, Kaohsiung International Karachi Quaid-e-Azam International, Kathmandu, Khon Kaen, Koh Samui, Krabi, Kuala Lumpur International, Kunming Wujiaba, Lahore, Lampang, Luang Prabang, Macau International, Male International, Manila Ninoy Aquino International, Mumbai International, Nakhon Phanom, Nan, Narathiwat, Ngurah Rai - Bali International, Osaka Kansai International, Penang International, Phitsanulok Air Base, Phnom Penh International, Phuket International, Roi Et, Sakon Nakhon, Savannakhet, Senai Airport, Seoul Incheon International, Shanghai Pudong International, Shantou, Shenzhen Baoan International, Siem Reap International, Singapore Changi, Sukhothai, Surat Thani, Taiwan Taoyuan International, Tashkent International, Tokyo Narita International, Trat, Ubon Ratchathani, Udon Thani, Vientiane - Wattay International, Xi'an Xianyang International, Xiamen Gaoqi International, Yangon International **Europe:** Amsterdam Schiphol, Athens International, Baku, Berlin Tegel, Copenhagen Kastrup, Düsseldorf International, Frankfurt, Helsinki Vantaa, Istanbul/Atatürk InternationalKiev-Borispol International, London Heathrow, Luxembourg, Madrid Barajas, Milan Malpensa, Moscow Domodedovo International, Moscow Sheremetyevo, Munich International, Paris Charles de Gaulle, Rome Fiumicino Leonardo Da Vinci, Stockholm Arlanda, Vienna International, Zurich **Latin America:** Barcelona Anzoategui **Middle East:** Abu Dhabi International, Amman - Queen Alia International, Bahrain International, Doha International, Dubai International, Kuwait International, Muscat - Seeb International, Riyadh King Khalid International, Sharjah International, Tehran - Imam Khomeini International, Tehran – Mehrabad, Tel Aviv Ben Gurion International **North America:** Los Angeles International

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Bangkok Suvarnabhumi International Airport	
Categories	**Details**
	South Pacific: Auckland International, Melbourne Tullamarine International, Perth, Sydney Kingsford Smith International
Regional Analysis	Africa : Eastern Africa 1.01% Africa : North Africa 0.58% Asia : Central Asia 1.3% Asia : North East Asia 27.13% Asia : South Asia 8.23% Asia : South East Asia 39.97% Europe : Eastern/Central Europe 1.59% Europe : Western Europe 9.38% Latin America : Upper South America 0.14% Middle East 6.2% North America 1.15% Southwest Pacific 3.32%

Phuket International Airport						
Categories	**Categories**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	2.825	2.245	3.032	3.512	3.319	57.91
International passenger	1.954	0.879	1.661	2.175	2.401	41.89
Terminal passengers	4.779	3.124	4.692	5.687	5.720	99.81
Transit passengers	0.072	0.045	0.018	0.017	0.011	0.19
Total passengers	4.851	3.169	4.711	5.704	5.731	100.00
Airline Serving: 18	AK-AirAsia, OZ-Asiana Airlines, PG-Bangkok Airways, CI-China Airlines, KA-Dragonair, FY-Firefly, JQ-Jetstar Airways, KE-Korean Air, LT-LTU International Airways, MH-Malaysia Airlines, DD-Nok Air, OX-Orient Thai Airlines, MI-SilkAir, XT-Skystar Airways, FD-Thai AirAsia, TG-Thai Airways International, TR-Tiger Airways, UN-Transaero Airlines					
Destination: 15 Asia- 12 Europe- 2 South Pacific- 1	**Asia:** Bangkok Don Muang International, Bangkok Suvarnabhumi International, Busan - Gimhae International, Hong Kong International, Koh Samui, Kuala Lumpur International, Penang International, Seoul Incheon International, Singapore Changi, Subang - Sultan Abdul Aziz Shah, Taiwan Taoyuan International, Utapao **Europe:** Moscow Domodedovo International, Munich International **South Pacific:** Sydney Kingsford Smith International					
Regional Analysis	Asia : North East Asia 21.11% Asia : South East Asia 74.44% Europe : Eastern/Central Europe 1.11% Europe : Western Europe 1.11% Southwest Pacific 2.22%					

Table 4-30 Thailand's first two busiest airport traffic data
Source:(ATI, 2009) and Author's calculation

Airline Capacity and Utilisation

From year 2002 to 2007, total airline capacity had grown at about 22%, from 51.7 million seats available to 563.1 million seats available. All airline types share the same growth trend, which experienced sharpen fall in year 2003, caused by SARS crisis, but, then, recovered rapidly in later year. In 2004, low cost carrier did first

penetration to the market and acquired almost 11% share of total seat capacity. For load factor, overall industry performed a remarkable high load factor at around 85 % load factor, except the charter airline which shared about 7% of the total seat capacity with less than 70 % load factor in the review period.

'000 seats	2002	2003	2004	2005	2006	2007
Total Airline capacity	51,780.0	49,727.0	56,787.0	58,012.0	60,371.7	63,180.2
-Schedule (capacity)	47,890.0	45,985.0	46,723.0	47,346.0	49,003.1	50,916.2
-Charter (capacity)	3,890.0	3,740.0	3,820.0	3,840.0	3,860.0	3,870.0
-Low cost carriers (capacity)	-	2.0	6,244.0	6,826.0	7,508.6	8,394.0
Total Airline seats sold	41,126.0	38,669.0	46,084.0	47,956.0	52,537.6	56,455.2
-Schedule (utilisation)	38,525.0	36,380.0	38,213.0	39,765.0	43,662.0	46,893.0
-Charter (utilisation)	2,601.0	2,289.0	2,311.0	2,315.0	2,318.0	2,322.6
-Low cost carriers (utilisation)	-	-	5,560.0	5,876.0	6,557.6	7,239.6
% Load Factor	2002	2003	2004	2005	2006	2007
Total airline seats sold	79.4	77.8	81.2	82.7	87.0	89.4
-Schedule	80.4	79.1	81.8	84.0	89.1	92.1
-Charter	66.9	61.2	60.5	60.3	60.1	60.0
-Low cost carriers	-	-	89.0	86.1	87.3	86.2

Table 4-31 Thailand's airline capacity, utilisation, and load factor: 2002-2007
Source:(ICAO, 2009a), (Euromonitor, 2009b)and Author's calculation

Airline Seat Class and Distance

Thailand is one of two countries in ASEAN that experiences the highest share of business class seat at more than 20% of all classes seats sold. As for other ASEAN countries, the economy class seat dominates the largest portion of all classes seat sold. It had continuously increased of 8% over 6 year period. In contrast, though the business and first class seats acquire more than 30% share of all seats sold, but their growth had been declined during the review period. In 2002, for distance flown, short haul flights had accounted for around 93% of the total seats sold and increased gradually. Conversely, long haul flights shares less than 8 % of total seats and had fallen continuously from 7.3% share in 2002 to 5.8 % share in 2007.

% Breakdown	2002	2003	2004	2005	2006	2007
Airline seats sold by class	100.0	100.0	100.0	100.0	100.0	100.0
-Economy class	64.6	64.3	70.0	70.9	71.3	72.6

% Breakdown	2002	2003	2004	2005	2006	2007
-Business class	24.0	24.3	20.4	19.8	19.6	18.6
-First class	11.4	11.4	9.6	9.3	9.1	8.7
Airline seats sold by distance	100.0	100.0	100.0	100.0	100.0	100.0
-Short haul	92.7	92.8	93.4	93.6	94.0	94.2
-Long haul	7.3	7.2	6.6	6.4	6.0	5.8

Table 4-32 Thailand's airline sales volume by seat class and distance: % Breakdown: 2002-2007
Source: (Euromonitor, 2009b)

Airline Performance

Fleet size

Thai Airways, as being a national carrier, has a largest fleet and owns a total of 80 aircrafts for serving both domestic and international routes, followed by Bangkok Airways, which operates the fleet consists of 15 aircrafts. Orient Thai Airlines was in the third rank with 13 in total and Thai AirAsia had a total of 8 aircrafts in 2007.

Load factor

All airlines in Thailand performed an average load factor at around 75%, which is pretty high when compare to the others in the region. Nok Air and Thai AirAsia share the highest number of load factor of 85% and 82% respectively, followed by same 80% of Bangkok Airways' and Thai Airways' load factor. While Orient Thai, ranked as the lowest, has 74% load factor.

Passengers carried

Thai Airways, with the biggest fleet, carries the most airline passengers at around 5.1 million passengers. Bangkok Airways and Nok Air are in the second rank and followed by Orient Thai Airlines.

Airline Market Shares

Thai Airways has started to acquire less than a half of airline market in Thailand with the continuously negative growth, since the entrance of low cost players. The second rank airline in market share is Bangkok Airways with rising share form 6.0% in 2002 to 6.2% in 2007. The low cost carriers, including Orient Thai Airlines, Nok Air, and

Thai AirAsia, had experienced higher market share through the review period. This confirms the significant threat from low cost carriers to the traditional airline in Thai market. In addition, the modified HHI noticeably shows the significantly increasing competition over the review period.

Performance indicator	Sale Value(Local currency millions)	Fleet size	Passenger carried (million)	% average load factor
Bangkok Airways	9,591.3	15.0	2.2	80.0
Nok Air	2,198.3	7.0	2.2	85.0
Orient Thai Airlines	6,010.2	13.0	1.5	74.0
Thai Air Asia	4,217.6	8.0	n.a.	82.0
Thai Airways	73,216.8	80.0	5.1	80.0

Table 4-33 Thailand's airline performance indicator: 2007
Source: (Euromonitor, 2009b) and Author's calculation

% Breakdown	2003	2004	2005	2006	2007
Thai Airways International PCL	54.5	48.3	47.4	47.0	47.5
Bangkok Airways Co Ltd	6.0	5.9	5.8	5.9	6.2
Orient Thai Airlines	3.6	3.7	3.9	4.1	3.9
Thai AirAsia Co Ltd	-	2.1	2.4	2.7	2.7
Sky Asia Co Ltd (Nok Air)	-	1.2	1.2	1.4	1.4
Other	35.9	38.8	39.2	39.0	38.3
Total	100.0	100.0	100.0	100.0	100.0
Modified HHI (by excluding market shares of 'others')	7,348.1	6,373.7	6,229.5	6,100.2	6,092.0

Table 4-34 Thailand's airline market share: 2003- 2007
Source: (Euromonitor, 2009b) and Author's calculation

Vietnam

Vietnam is located on the South China Sea coast of the Indo-Chinese region. The country follows the coast for more than 2,000 km from the Chinese border in the north to the far south where it joins Cambodia on the Gulf of Thailand. There is also a western border with Laos. The climate is tropical and extremely humid. The capital is Hanoi.

Political structure and risk

The influence of the communist party remains dominant despite attempts at economic and political reform. The country has a semi-executive president who has until recently been elected from single-candidate lists, and a 493-member National Assembly which formally hold all legislative power. In addition, the ruling party, Communist Party of Vietnam (CPV), practically controls the armed forces and the judiciary. The head of state is President Nguyen Minh Triet and the head of government is Nguyen Tan Dung.

Apart from the natural disaster like the outbreak of SARS and the avian flu epidemic which could risk the political as well as economic, the private sector which is growing rapidly, induces heavy corruption and a pervasive bureaucracy.

Regional/International Conflicts

Vietnam is involved in an ongoing territorial dispute over the potentially hydrocarbon rich Spratly Islands. Vietnam, China, the Philippines, Brunei, Taiwan, and Malaysia all make claims to the Spratlys. In addition, Vietnam has trade disputes with both the US and the EU.

Economic situation

Vietnam has been in transition from a centrally planned to a market-based economy since 1986. Market elements were introduced as part of a broad economic reform package called 'Doi Moi', which included some forms of private enterprise, competition (particularly through trade liberalisation) and FDI. Vietnam broadened its reforms in 1989 and has progressed towards a market economy through the reform of agriculture and land use, liberalisation of prices, reform of taxes, gradual restructuring and diversification of ownership of state-owned enterprises, development of the financial system, exchange rate stabilisation, and moves towards more liberal trade and foreign investment regimes. The government still holds a tight restriction over some major sectors of the economy, including the banking system, telecommunications, areas of foreign trade, oil and gas and distribution. Vietnam

achieved around 7 % annual GDP growth in the decade up to the Asian financial crisis, with foreign investment and exports growing rapidly. The country successfully concluded its lengthy negotiations to join the World Trade Organisation(WTO) and joined in January 2007.

Vietnam is a low-income country, rich in resources and with a relatively literate population. It has been industrialising for well over a decade – agriculture's share of the economy had declined to 22 % of GDP in 2004 and manufactures had risen to 20 %. Labour-intensive agricultural and manufactured products, particularly seafood, rice, coffee, shoes, clothing and textiles are some of Vietnam's most successful exports. Farm output is held back by drought, livestock diseases and avian flu. Growth in 2008 was slightly less than the historical trend. Rice shortages and rapid increases in the world price for rice have led to export restrictions. A bumper rice harvest in 2008 helped to ease pressure. Industrial output grew by about 10.6% in 2008. Led by strong growth in trade and finance, the service sector reported gains of 8.6% in 2008. In the tourism industry, the number of tourist arrivals has been steadily rising. Strains to the banking system grew in 2008. Public investment is being channelled into infrastructure, including roads, ports and power generation facilities. The government also plans a US$33 billion rail link between Hanoi and Ho Chi Minh City.

During the past decade, the average growth was more than 7% per year but the pace slowed in 2008. Initially, the slowdown was the result of government efforts to encounter inflation but more recently it has been due to weakening exports. Private remittances, investment and tourism receipts are also slowing. Economic progress is uneven. Ho Chi Minh City alone accounts for 17% of national output, 30% of foreign investment and 40% of exports – far in excess of its 9% share of population. Poverty has nonetheless fallen dramatically from 51% in 1993 to around 20% at the end of 2004. Unemployment has been around 2% for several years but the number of jobless in the larger cities remains relatively high.

Air Transport Industry

From 2004 to 2008, Vietnam had experienced rapid growth of passenger number. The two busiest airports in Vietnam are Ho Chi Minh City - Tan Son Nhat International and Hanoi Noi Bai International Airports. The former one serves 38 airlines operating to/from 43 destinations. There were more than 11 million passengers using the airport in 2008; international traffic sharing 51.6 %, 47.9 % for domestic one and the rest for transit passenger. Hanoi Noi Bai International is the second busiest airport in the country. It serves 18 airlines and links to 15 destinations, mainly in the country and Southeast Asia. Unlike the Ho Chi Min, Hanoi serves more domestic traffic than international one. Considering the total traffic of both airports, the number of domestic passenger has remarkably increased at nearly 115% during the review period, while, the international one achieves almost 70% growth. (See Table 4-35)

Ho Chi Minh City - Tan Son Nhat International Airport						
Categories	**Details**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	2.508	3.021	3.596	4.657	5.624	47.96
International passenger	3.716	4.301	4.854	5.589	6.052	51.61
Terminal passengers	6.224	7.322	8.450	10.246	11.676	99.57
Transit passengers	0.020	0.023	0.023	0.041	0.050	0.43
Total passengers	6.244	7.345	8.472	10.287	11.726	100.00
Airline Serving: 38	CA-Air China, AF-Air France, AK-AirAsia, NH-All Nippon Airways, OZ-Asiana Airlines, PG- Bangkok Airways, S1-Cargolux Airlines International, CX-Cathay Pacific, 5J-Cebu Pacific Air, CI-China Airlines, CZ-China Southern Airlines, BR-EVA Air, GA-Garuda Indonesia Airways, VP-Indochina Airlines, JL-Japan Airlines, JQ-Jetstar Airways, 3K-Jetstar Asia Airways, Jetstar Pacific, KE-Korean Air, JT-Lion Airlines, LH- Lufthansa, MH-Malaysia Airlines, AE-Mandarin Airlines, NW-Northwest Airlines, PR-Philippine Airlines, QR-Qatar Airways, BI-Royal Brunei Airlines, FM-Shanghai Airlines, F4-Shanghai Airlines Cargo International, ZH-Shenzhen Airlines, SQ-Singapore Airlines, FD-Thai AirAsia, TG-Thai Airways International, TR-Tiger Airways, B7-UNI Air, UA-United Airlines, VN-Vietnam Airlines, VIVA Macau					
Destination: 43 Asia- 36 Europe- 3 North America- 1 South Pacific- 3	**Asia:** Ban Me Thuot, Bangkok Suvarnabhumi International, Brunei International, Busan - Gimhae International, Con Son, Da Nang, Dalat, Fukuoka International, Guangzhou Baiyun International, Haiphong, Hanoi Noi Bai International, Hong Kong International, Kaohsiung International, Kuala Lumpur International, Macau International, Manila Ninoy Aquino International, Nanning Nha-Trang, Osaka Kansai International, Phnom Penh International, Phu Bai International, Phuquoc, Pleiku, Quinhon, Rach Gia, Seoul Incheon International, Shanghai Pudong International, Shenzhen Baoan International, Siem Reap International, Singapore Changi, Taichung, Taiwan Taoyuan International, Tamky-Chulai Airport, Tokyo Narita International, Tuyhoa Vinh City **Europe:** Frankfurt, Moscow Domodedovo International, Paris Charles de Gaulle **South Pacific:** Darwin International, Melbourne Tullamarine International, Sydney Kingsford Smith International					

Ho Chi Minh City - Tan Son Nhat International Airport	
Categories	**Details**
Regional Analysis	Asia : North East Asia 25.65% Asia : South East Asia 65.22% Europe : Eastern/Central Europe 1.30% Europe : Western Europe 2.61% Middle East 0.43% North America 1.74% Southwest Pacific 3.04%

Hanoi Noi Bai International Airport						
Categories	**Categories**					
Traffic Statistics (millions):	**2004**	**2005**	**2006**	**2007**	**2008**	**% total**
Domestic passenger	1.947	2.25	2.669	3.437	3.934	56.09
International passenger	1.661	2.08	2.502	2.921	3.068	43.74
Terminal passengers	3.607	4.33	5.172	6.359	7.002	99.83
Transit passengers	n.a.	0.015	0.013	0.013	0.011	0.16
Total passengers	3.607	4.345	5.185	6.371	7.014	100.00
Airline Serving: 18	AK-AirAsia, OZ-Asiana Airlines, PG-Bangkok Airways, CI-China Airlines, KA-Dragonair, FY-Firefly, JQ-Jetstar Airways, KE-Korean Air, LT-LTU International Airways, MH-Malaysia Airlines, DD-Nok Air, OX-Orient Thai Airlines, MI-SilkAir, XT-Skystar Airways, FD-Thai AirAsia, TG-Thai Airways International, TR-Tiger Airways, UN-Transaero Airlines					
Destination: 15 Asia- 12 Europe- 2 South Pacific- 1	**Asia:** Bangkok Don Muang International, Bangkok Suvarnabhumi International, Busan - Gimhae International, Hong Kong International, Koh Samui, Kuala Lumpur International, Penang International, Seoul Incheon International, Singapore Changi, Subang - Sultan Abdul Aziz Shah, Taiwan Taoyuan International, Utapao **Europe:** Moscow Domodedovo International, Munich International **South Pacific:** Sydney Kingsford Smith International					
Regional Analysis	Asia : North East Asia 21.11% Asia : South East Asia 74.44% Europe : Eastern/Central Europe 1.11% Europe : Western Europe 1.11% Southwest Pacific 2.22%					

Table 4-35 Vietnam's first two busiest airports traffic data
Source:(ATI, 2009) and Author's calculation

Airline Capacity and Utilisation

As a result from late entrance of low cost carrier in Vietnam, the most airline capacity belongs to the schedule airline. Unlike many ASEAN countries, Vietnam airline seat capacity was not negatively affected by SARS crisis in 2003. Total airline capacity had expanded from 14.7 million seats in 2002 to 26.1 million seats in 2007, which accounted for 77.7 % growth over 6 years. For load factor, the schedule flights had started to perform above 78% load factor in 2005.

'000 seats	2002	2003	2004	2005	2006	2007
Total Airline capacity	14,707.20	14,901.20	16,681.50	20,051.20	22,864.70	26,136.90
-Schedule (capacity)	14,592.5	14,780.0	16,544.3	19,708.9	22,476.8	25,688.5
-Charter (capacity)	114.7	121.2	137.2	159.3	183.1	197.3
-Low cost carriers (capacity)	-	-	-	183.0	204.8	251.2
Total Airline seats sold	9,357.0	9,512.8	11,643.1	14,396.6	16,700.0	19,500.0
-Schedule (utilisation)	9,251.6	9,400.1	11,514.9	14,111.6	16,363.1	19,086.5
-Charter (utilisation)	105.4	112.7	128.3	148.5	173.1	187.4
-Low cost carriers (utilisation)	-	-	-	136.5	163.8	226.0
% Load Factor	2002	2003	2004	2005	2006	2007
Total airline seats sold	63.6	63.8	69.8	71.8	73.0	74.6
-Schedule	63.4	63.6	69.6	71.6	72.8	74.3
-Charter	91.9	93.0	93.5	93.2	94.5	95.0
-Low cost carriers	-	-	-	74.6	80.0	90.0

Table 4-36 Vietnam's airline capacity, utilisation, and load factor: 2002-2007
Source: (ICAO, 2009a), (Euromonitor, 2009b) and Author's calculation

Airline Seat Class and Distance

Quite similar to Thailand, business class seats acquire a large portion of total seat sold at more than 20%, and getting grown in the positive direction as well. Economy class seats still dominates the biggest share of total seats sold at around 70%. The first class seat accounted for the lowest portion with the regressive growth. For the distance flown, it is very contrast to other ASEAN countries, as its short haul flights' seat sold had decreased, while the long haul's one had increased in stead. The short haul flight lost about 0.3% share and long haul gain back about the same number over the review period.

% Breakdown	2002	2003	2004	2005	2006	2007
Airline seats sold by class	100.0	100.0	100.0	100.0	100.0	100.0
-Economy class	69.8	70.9	69.7	70.0	70.2	70.1
-Business class	24.6	24.1	25.1	25.0	25.0	25.1
-First class	5.6	5.0	5.2	5.0	4.8	4.8
Airline seats sold by distance	100.0	100.0	100.0	100.0	100.0	100.0
-Short haul	79.5	80.8	79.3	79.8	79.8	79.2
-Long haul	20.5	19.2	20.7	20.2	20.2	20.9

Table 4-37 Vietnam's airline sales volume by seat class and distance: % Breakdown: 2002-2007
Source: (Euromonitor, 2009b)

Airline Performance

Fleet size

Vietnam Airlines operates the biggest fleet with 45 aircrafts, followed by Pacific Airlines with 6 aircrafts.

Load factor

Comparing two airlines, Vietnam Airlines and Pacific Airlines, Vietnam Airlines has a worse performance in filing up its seat than Pacific Airlines. Vietnam Airlines accounted for 75 % load factor, while Pacific Airlines acquired load factor at around 85% in 2007.

Passengers carried

Undoubtedly, Vietnam Airlines, as operating the biggest fleet, carried 9.2 million passengers in 2007, followed by Pacific Airlines, which served around 6.3 million passengers.

Airline Market Shares

It was very clear about the difference of market share growth among airlines in Vietnam. Vietnam Airlines accounted for more than 85% market share and Pacific Airlines acquired around 10 % share. However, market share of Pacific Airlines had improved gradually to reach 11 % in 2007, corresponding with the decreasing of modified HHI over the review period.

Performance indicator	Sale Value(Local currency millions)	Fleet size	Passenger carried (million)	% average load factor
Pacific Airlines	3,362,093.90	6.0	6.3	85.0
Vietnam Airlines	19,700,100.00	45.0	9.2	75.0

Table 4-38 Vietnam's airline performance indicator: 2007
Source: (Euromonitor, 2009b) and Author's calculation

% Breakdown	2003	2004	2005	2006	2007
Vietnam Airlines	85.1	85.8	85.6	85.1	85.0

% Breakdown	2003	2004	2005	2006	2007
Pacific Airlines	10.9	10.2	10.3	10.1	11.0
Other	4.0	4.1	4.1	4.8	4.0
Total	100.0	100.0	100.0	100.0	100.0
Modified HHI (by excluding market shares of 'others')	7,348.1	6,373.7	6,229.5	6,100.2	6,092.0

Table 4-39 Vietnam's airline market share: 2003-2007
Source: (Euromonitor, 2009b)

4.3 General Conclusions

The chapter illustrates many different aspects among 10 ASEAN countries. The economic and market size wises categorise these 10 countries into two groups, ASEAN-5 and BCMLV. The former one has the larger economic and market size, while, the latter one's output is posted on the opposite side of scale. The ASEAN Economic Community Development scheme aims to fuel the practical development at two levels, regional and country levels. The regional levels would develop economic growth in the region and create more competitive economies, whereas, the country level would facilitate these three driving forces, opening market to enhance productivity, fostering innovation and SMEs, and meeting infrastructure needs. In term of political dimension, each of all 10 ASEAN nations has its own political structure and risks. The less developed countries tent to be more set back economic development progress by its internal political situations. The evolutionary time of country's economic system could be another factor affecting development progress. The country started an economic reformation earlier achieves better economic development progress.

For the air transport context in the region, all 10 ASEAN nations witness growing air traffic during the review period, though there were some contractions in certain years. In addition, their airlines have also improved operating performance in term of passenger load factor. The competition in all ASEAN-5 countries is intensifying. The emergence of Low Cost Carriers (LCCs) plays significant role on influencing higher competition. In all ASEAN-5 countries, LCCs have not only been stimulating new market demands and expanding their operations, but also growing market share at the expense of the countries' airline incumbents. As a result, short

haul operations and economy seat class sold achieve higher growth rate than long haul operations and business and fist seat class sold. For BCMLV group, Vietnam achieves the highest growth of both international and domestic traffic. Brunei has been facing the invasion from foreign carriers which lead to significant loses of its market share.

As mentioned at the beginning of the chapter, all collected data and findings in this chapter will be merged with the next chapter's findings at the final stage and be analysed by constant comparative method in order to the research objectives. This chapter provides the meaningful context of ASEAN airline business and could effectively facilitate the interpretation of emerged changes and market phenomena at the later research stages. The next chapter will present and discuss the outputs of the first research module (RM 1), which will certainly provide the first list of key change drivers and emerged changes/market phenomena.

5 Discovery of Key Change Drivers and Emerged Changes in 10 ASEAN Countries: Content Analysis and Thematic Analysis

This chapter illustrates the results and discussions of research module 1 (RM 1) which aims to explore key drivers and emerged changes in 10 ASEAN nations. The module is designed to investigate the underlying critical factors that drive changes and changes themselves in the Southeast Asia airline business, covering the period start from 2003 to 2008. The research consists of two sub-modules, RM1-1 and RM1-2, which use 'hermeneutics phenomenology' and 'mixed methods' as their research methodologies. Reviewing document is the core method employed. The units of analysis are those relevant articles/news obtained from the Air Transport Intelligence (ATI) Database. The first research sub-module applies content analysis technique to extract key change drivers cited in the units of analysis. The second sub-module uses thematic analysis to tap emerged changes and map their interrelationships. The findings from both sub-modules are merged with the seand interpreted to construct the integrated results at the last research stage.

5.1 Sample and Content Analysis of Key Change Drivers

A first step in content analysis is to determine the documents to be analysed and the units of analysis (Krippendorff, 1980; Guthrie et al., 2004). The choice of documents that provide the source data for a content analysis depends on their availability, accessibility and relevance (Cullinane and Toy, 2000). As this study aims at assessing the frequency of different key change drivers, therefore, the content analysis encompasses six years (2003-2008) of relevant articles and/or news in ATI database. Content analysis typically uses smaller units of analysis such as paragraphs, sentences, words or characters and/or looks at the layout of, e.g. advertisements to evaluate the communicative power of a report (Unerman, 2000). Nevertheless, entire articles can also be used as the unit of analysis in a content analysis (Cullinane and

Toy, 2000; Larson and Poist, 2004; Miyazaki et al., 1999; Stock, 1997). For this research module, all relevant articles and/or news are selected as sample to ensure the richness of data. A total of 1,984 articles and/or news of 72 Airlines in all 10 ASEAN nations are reviewed under the research conceptual framework of the research module. Content analysis builds on a coding scheme that is developed on the basis of a theoretical framework (Guthrie et al., 2004). In order to derive patterns in the presentation and reporting of information, content analysis involves the codifying of qualitative and quantitative information into pre-defined categories (Guthrie et al., 2004; Pasukeviciute and Roe, 2005). Therefore, nine categories of business environment derived from the literature review in chapter 2 are defined as main categories of coding for the analysis. They are competition, market, technology, regulations/policy, cooperation, distribution, infrastructure/resources, broad and other factors. All relevant keywords are counted in order to analyse the frequency of matched codes under those nine categories. This following table (Table 5-1) shows the summary of number of sample for the analysis.

No. of Sample (articles/news)	No. of Airline	2003	2004	2005	2006	2007	2008	Total
Brunei Darussalam	1	9	11	4	4	8	5	41
Cambodia	7	7	9	2	8	4	3	33
Indonesia	21	58	52	54	35	44	75	318
Lao PDR	1	7	2	1	1	1	4	16
Malaysia	7	68	58	63	74	79	104	446
Myanmar	6	8	10	8	1	10	4	41
Philippines	8	21	20	15	28	25	46	155
Singapore	5	42	82	102	68	69	93	456
Thailand	10	65	76	70	53	38	51	353
Viet Nam	6	19	23	11	18	28	26	125
Total	72	304	343	330	290	306	411	1,984

Table 5-1 Number of selected sample and airlines of 10 ASEAN nations: 2003-2008

5.2 Reliability of the analysis

As mentioned in chapter 3, in order to ensure reliability of findings from content analysis, the researcher is suggested to invite another coder to perform coding

and counting sampled materials for assessing 'Inter-coder reliability'. The coder is selected by invitation of the qualified person. The Ph.D. student, who works on exploring critical factors of the outsourcing relationships management, is invited to e the coder as her research area is related to key factor exploration of this researcher's works. The coder performs coding 10% of total samples randomly selected from each country's and airlines' articles, but forced to be at least 10% sample from each particular year and country. Therefore, total number of sample is 204 (see Table 5-2). The coder's coding results are recorded and compared to the results of the researcher's works by kappa coefficient calculation. The formula is shown in Equation 1 in page 75 and the calculation details are presented in Appendix D. The criterion to evaluate the inter-coder reliability is as follows:

kappa = 1.00   indicates   complete agreement

kappa = 0.00   indicates   poor agreement

kappa = 0.21-0.41   indicates   fair in agreement and

kappa = 0.81-1.00   indicates   high in agreement

The calculation's output indicates reliability of the work. The assessment shows kappa = 0.87, which indicates 'high' in agreement between the coder and researcher. The different judgements between the coder and researcher are mostly observed within judgments toward two categories, 'market' and 'competition'. In summary, the result could claim high reliability of the analysis.

No. of Sample (articles/news)	No. of Airline	2003	2004	2005	2006	2007	2008	Total	% Total
Brunei Darussalam	1	1	1	1	0	1	1	5	12.20
Cambodia	3	1	2	0	1	1	0	5	15.15
Indonesia	17	6	5	5	4	4	8	32	10.06
Lao PDR	1	1	0	0	0	0	1	2	12.50
Malaysia	7	7	6	6	7	8	11	45	10.09
Myanmar	4	1	1	1	0	1	1	5	12.20
Philippines	8	2	2	2	3	2	5	16	10.32
Singapore	5	5	8	10	7	7	9	46	10.09
Thailand	10	7	8	7	5	4	5	36	10.20
Viet Nam	5	2	2	1	2	3	3	13	10.40
Total	**61**	**33**	**35**	**33**	**29**	**31**	**44**	**204**	10.33

No. of Sample (articles/news)	No. of Airline	2003	2004	2005	2006	2007	2008	Total	% Total
%Total	84.72	10.86	10.20	10.00	10.00	10.13	10.71	10.33	

Table 5-2 Number of selected sample for 'inter-coder reliability' assessment: 2003-2008

5.3 Key Change Drivers Coding Categories

Regarding the discovered business environment categories, cited in chapter 2, the content analysis is coded by using those nine categories as a framework to construct the cited frequency record. After partly progressing on the coding, the researcher found many emerging drivers could be categorised as sub-codes. This could benefit constant comparative analysis at a later stage when all processed data are combined. Therefore, all emerged drivers are coded and categorised to the relevant category. Table 5-3 to Table 5-11 illustrates the summary of nine categories and their codes:

Com=Competitive Factors:	
CA=Competition-Avoid	CI=Competition-Increased
CAd=Competitive Advantage	CL=Competition-Low
CAn=Competition-Anti	CN=No competition
CC=Competition-Changed	CoB=Competitor-Behaviour
CF=Competition-Facing	CP=Competition-Price
CH=Competition-High	CR=Competition-Reduced

Table 5-3 Competition category and its codes

Mar=Market Factors:	
BA=Brand Awareness	MV=Market-Void
BR=Brand Reputation	ND=Network Contraction
BRe=Re-Brand	NE=Network Expansion
CaI=Capacity-Increased	NR=Network Rationalisation
CaO=Capacity-Over	OL=Operation-Launched
CaR=Capacity-Reduced	OLD=Operation-Launch Delayed
DB=Demand-Boosted	OR=Operation-Reinstated
DI=Demand-Increased	OS=Operation-Suspended
DL=Demand low	RA-Route-Added
DR=Demand-Reduced	RR=Route-Reinstated
FrI=Frequency-Increased	RS=Route-Suspended
FrR=Frequency-Reduced	RW=Route Withdraw
MC=Market-Changes	SA=Service-Added
MP=Market Positioning	SB=Service-Boosted
MPl=Marketing Plan	SI=Service Improvement
MPt=Market Potential	SR=Service-Reduced
MR=Market Re-Positioning	TPI=Ticket Price-Increased
MRec=Market-Recovered	TPR=Ticket Price-Reduced
MS=Market Segmented	TP-Ticket Price

Mar=Market Factors:
MT=Market-Targeted

Table 5-4 Market category and its codes

Tec=Technology Factors:	
TA=Technology-Advancement	TS=Technology-Suitable
TE=Technology-Efficiency	

Table 5-5 Technology category and its codes

Reg/Pol=Regulatory/Policy Factors:	
AsaF=Air Service Agreement-Failed	GD=Government Decision
AsaL=Air Service Agreement-Liberalised	GDi=Government Dispute
AsaN=Air Service Agreement-Negotiation	GN=Government Negotiation
AsaS=Air Service Agreement-Signed	GP=Government Policy
CRS=Competition Rules-Set	GPL=Government Policy-Liberalisation
FGA=Foreign Government Approval	GS=Government Subsidy
FGC=Foreign Government Conditions	PN=Privatisation of National Carrier
GA=Government Approval	ReL=Regional Liberalisation
GAg=Government Agreement	RT=Regulator Transformation

Table 5-6 Regulation/Policy category and its codes

Coo=Cooperation/Relationship Factors:	
CodeS=Code Share	JS=Joint Sales Outlet
CodeSE=Code Share-Ended	JV=Join Venture
CoopP=Co-operative partnership	KT=Knowledge Transferred
FRC=Franchise	RCAsean=Regional Cooperation ASEAN
JA=Join Alliance	RCAseanS=Sub Regional Cooperation
JC=Joint Cooperation	

Table 5-7 Cooperation category and its codes

Dis=Distribution Factors:	
DAtm=Distribution-ATM	DPS=Distribution-pooling sale
DET=Distribution-E Ticket	DRS=Distribution-Reservation System
DO=Distribution-Online Direct	DSms=Distribution-SMS
DPO=Distributing-Post	DSO=Distribution-Sales Outlet

Table 5-8 Distribution category and its codes

Inf/Res=Infrastructures/Resources Factors:	
AA=Aircraft-Added	FIE=Fleet Expansion
AAv=Aircraft Availability	FIH=Fleet Homogeneous
AD=Aircraft-Delivered	FIM=Fleet Modernisation
ADD=Aircraft-Delivery Delayed	FIPC=Fleet Plan-Changed
ADS=Aircraft-Delivery Suspended	FIR= Fleet Renewal
AE=Aircraft Evaluation	FIRa=Fleet Rationalisation
AG=Aircraft-Grounded	FS=Financial Source
AL-Aircraft-Leased	FuH=Fuel price-High
ANm=Aircraft -Needed more	Hr=Human resource
ANSI=Air navigation service-improved	HrP=Human Resource-Pilot
AO=Aircraft-Ordered	HrS=Human Resource-Strike
ApC=Airport-Charge	ID=Investment Deal

Inf/Res=Infrastructures/Resources Factors:	
ApCL=Airport Capacity-Limited	IFL=Infrastructure Limitation
ApD=Airport Improvement/Development	InH=Interest Rate-High
ApN=Airport-New	IO=Investor offer
ApOC=Airport Ownership-Changed	IS=Investor-Seek
ApP=Airport-Poor condition	IW=Investor Withdraw
ApRO=Airport-re opened	MroE=MRO Expansion
ApS=Airport slot	MroI=MRO Investment
ApU=Airport-Usage	PS=Partner-Seek
AR-Aircraft-Returned	SuC=Supplies-Contracted
ARI=Aircraft Rental Increased	SuD=Supplies-Delayed
ARp=Aircraft Replacement	SuDL=Supplies-Delivered
AS=Aircraft-Sourcing	SuE=Supplies-Evaluation
ASc=Aircraft-Scrapped	SuL=Supplies-Lack
ASD=Aircraft-Sourcing Difficulties	SuP=Supplies-Purchased
FD=Financial Difficulties	SuS=Supplies-Supported
FDRe=Financial Difficulties Resolution	SuV=Supplies-void

Table 5-9 Infrastructures/Resources category and its codes

Bro=Broad factors:	
EcCrA=Economic Crisis-Asian	Ge=Geographic
EcCrG=Economic Crisis-Global	OSars=Outbreak-SARS
EcCrR=Economic Crisis-Regional	PoS=Political Situation
EcCrW=Economic Crisis-World	SC=Safety Concerns
EcS=Economic Situation	TA=Terrorist Attack
FI=Foreign investment	WIraq=War-Iraq
FrEx=Foreign Exchange Rate	WTs=Wake of Tsunami

Table 5-10 Broad category and its codes

Oth=Other Factors:	
BuE=Business Expansion	CorI=Corporate Improvement
BuI=Business-Investment	CorO=Corporate-Ownership
BuLP=Business-Long-term Plan	CorP=Corporate Performance
BuMP=Business-Medium term Plan	CorR=Core-Restructuring
BuP=Business Plan	MgC=Management-Changed
BuPR=Business process improvement	MgFP=Management-Financial Performance
BuS= Business-Unit Spinned off	MgOP=Management-Operational Performance
BuSA=Business-Sale Asset	MgRC=Management-Raise Cash
BuT=Business-Turnaround	MgUR=Management-Union Request
CorC=Corporate Change	

Table 5-11 Other category and its codes

5.4 Sample and Thematic Analysis of Emerged Changes

Sample of research sub-module 1-2 is the same as the first one. All 1,984 articles/news are conveyed to get analysed by the selected technique, thematic analysis. The process of thematic analysis is to reduce the data into meaningful grouping which are easier to manage by 'conceptual mapping'. Conceptual mapping is the method constructing blocks of factor/concept/category and links them together

as their interrelationships' patterns found from investigation. For this research sub-module, Banxia's Decision Explorer-Version 3.3.0, is used as facilitating software for constructing conceptual mapping. Decision Explorer is a flexible mapping and analysis tool, providing help with structuring and analysing the qualitative information that surrounds the targeted issues.

The map is made up of prior defined concepts (short phrases) whose relationships are indicated by the links drawn between them. The map could be extended through new explored concepts and their links. All articles/news form research module 1-1 are passed over to the module 1-2 and analysed country by country. The outputs are 10 maps of 10 ASEAN nations created by thematic analysis-conceptual mapping. Each map represents all concepts and links extracted from all relevant articles/news of each country's airlines. Through the constructed maps, the researcher could consolidate understanding and explore the emergent properties of the map. As a result, emerged change and their interrelationships could be found and help to elaborate understanding and interpret the underlying phenomenon at the final stage of performing constant comparative analysis.

5.5 Research Findings: Key Change Drivers and Emerged Changes

5.5.1 ASEAN's Overview

Findings from the content analysis are presented in Table 5-12 and Table 5-13. For the broad picture throughout all ASEAN countries, 'Market' driver acquires the highest frequency cited. On the other hand, 'distribution' represents the lowest one. Considering each driver through all ten ASEAN countries (see Table 5-13), Indonesia has the highest frequency of 'competition' and 'broad' cited in the articles. The first rank of 'market' frequency cited falls on Singapore. Brunei posts the highest rank in 'technology' cited. Cambodia represents 'regulations/policy' the most cited. The highest 'cooperation' cited belongs to Laos again. Malaysia is found the highest rank in 'distribution' and 'other' cited. Vietnam and have the highest rate of 'infrastructure/resources'.

Frequency cited	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth	Total
Brunei	4	19	4	8	7	0	14	3	2	*61*
Cambodia	3	19	0	11	5	0	17	2	0	*57*
Indonesia	49	221	34	65	49	3	226	43	44	*734*
Laos	1	17	3	5	7	0	12	0	5	*50*
Malaysia	17	207	5	40	39	6	155	10	92	*571*
Myanmar	0	26	3	10	7	0	21	2	1	*70*
Philippines	9	75	0	14	15	1	71	12	20	*217*
Singapore	20	242	13	44	58	0	112	18	65	*572*
Thailand	9	170	10	31	51	4	136	19	51	*481*
Vietnam	4	42	1	18	13	0	56	3	10	*147*
Total	**116**	**1038**	**73**	**246**	**251**	**14**	**820**	**112**	**290**	**2,960**
% breakdown	*3.92*	*35.07*	*2.47*	*8.31*	*8.48*	*0.47*	*27.70*	*3.78*	*9.80*	*100*
Rank	*6*	*1*	*8*	*5*	*4*	*9*	*2*	*7*	*3*	

Table 5-12 Total number of 9 factors cited in selected samples of 10 ASEAN countries from 2003-2008

% breakdown/Rank		Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
Brunei	%	6.56	31.15	6.56	13.11	11.48	0.00	22.95	4.92	3.28
	Rank	*5*	*1*	*5*	*3*	*4*	*9*	*2*	*7*	*8*
Cambodia	%	5.26	33.33	0.00	19.30	8.77	0.00	29.82	3.51	0.00
	Rank	*5*	*1*	*7*	*3*	*4*	*7*	*2*	*6*	*7*
Indonesia	%	6.68	30.11	4.63	8.86	6.68	0.41	30.79	5.86	5.99
	Rank	*4*	*2*	*8*	*3*	*4*	*9*	*1*	*7*	*6*
Laos	%	2.00	34.00	6.00	10.00	14.00	0.00	24.00	0.00	10.00
	Rank	*7*	*1*	*6*	*4*	*3*	*8*	*2*	*8*	*4*
Malaysia	%	2.98	36.25	0.88	7.01	6.83	1.05	27.15	1.75	16.11
	Rank	*6*	*1*	*9*	*4*	*5*	*8*	*2*	*7*	*3*
Myanmar	%	0.00	37.14	4.29	14.29	10.00	0.00	30.00	2.86	1.43
	Rank	*8*	*1*	*5*	*3*	*4*	*8*	*2*	*6*	*7*
Philippines	%	4.15	34.56	0.00	6.45	6.91	0.46	32.72	5.53	9.22
	Rank	*7*	*1*	*9*	*5*	*4*	*8*	*2*	*6*	*3*
Singapore	%	3.50	42.31	2.27	7.69	10.14	0.00	19.58	3.15	11.36
	Rank	*6*	*1*	*8*	*5*	*4*	*9*	*2*	*7*	*3*
Thailand	%	1.87	35.34	2.08	6.44	10.60	0.83	28.27	3.95	10.60
	Rank	*8*	*1*	*7*	*5*	*3*	*9*	*2*	*6*	*3*
Vietnam	%	2.72	28.57	0.68	12.24	8.84	0.00	38.10	2.04	6.80
	Rank	*6*	*2*	*8*	*3*	*4*	*9*	*1*	*7*	*5*

Table 5-13 Percentage of 9 factors cited in selected samples of 10 ASEAN countries from 2003-2008

Furthermore, in each particular category, the frequency cited of its codes is recorded. The results are slightly different from when considering only those nine categories as a main code. Regarding the first top ten of most frequently cited code, the highest one is adding route, 246 times cited, followed by codeshare, service-

added, aircraft-leased, supplies-contracted, market positioning, demand-increased, business expansion, aircraft-ordered, and management change. Those codes are in market, cooperation, infrastructure/resource and other categories. By extending the list to cover the second top ten cited codes, the other two categories, regulation/policy (Liberal ASA signed and government's decision) and competition (facing competition), are emerged as their codes included in the list. However, the codes related to aircraft are highly frequently cited, which could be described as ATI database also focuses on aircraft leasing and purchasing, therefore, the news about such activities are more published. (See Table 5-14)

Code	No. of cited	%	Rank	Cat.	Code	No. of cited	%	Rank	Cat.
RA=Route-Added	246	8.31	1	Mar	Corl=Corporate Improvement	5	0.17	87	Oth
CodeS=Code Share	126	4.26	2	Coo	BuPR=Business process improvement	5	0.17	87	Oth
SA=Service-Added	120	4.05	3	Mar	BuSA=Business-Sale Asset	5	0.17	87	Oth
AL-Aircraft-Leased	93	3.14	4	Inf/Res	EcS=Economic Situation	5	0.17	87	Bro
SuC=Supplies-Contracted	92	3.11	5	Inf/Res	BA=Brand Awareness	4	0.14	95	Mar
MP=Market Positioning	89	3.01	6	Mar	PS=Partner-Seek	4	0.14	95	Inf/Res
DI=Demand-Increased	87	2.94	7	Mar	GPL=Government Policy-Liberalisation	4	0.14	95	Reg/Pol
BuE=Business Expansion	82	2.77	8	Oth	FRC=Franchise	4	0.14	95	Coo
AO=Aircraft-Ordered	69	2.33	9	Inf/Res	CodeSE=Code Share-Ended	4	0.14	95	Coo
MgC=Management-Changed	68	2.3	10	Oth	BuS= Business-Unit Spin off	4	0.14	95	Oth
AsaL=Air Service Agreement-Liberalised	67	2.26	11	Reg/Pol	WIraq=War-Iraq	4	0.14	95	Bro
CF=Competition-Facing	60	2.03	12	Com	CL=Competition-Low	3	0.1	102	Com
FuH=Fuel price-High	60	2.03	12	Inf/Res	BR=Brand Reputation	3	0.1	102	Mar
AS=Aircraft-Sourcing	59	1.99	14	Inf/Res	BRe=Re-Brand	3	0.1	102	Mar
GD=Government Decision	56	1.89	15	Reg/Pol	MgRC=Management-Raise Cash	3	0.1	102	Oth
CaI=Capacity-Increased	51	1.72	16	Mar	DL=Demand low	3	0.1	102	Mar
TS=Technology-Suitable	51	1.72	16	Tec	MPl=Marketing Plan	3	0.1	102	Mar
OSars=Outbreak-SARS	49	1.66	18	Bro	ND=Network Contraction	3	0.1	102	Mar
JC=Joint Cooperation	48	1.62	19	Coo	OLD=Operation-Launch Delayed	3	0.1	102	Mar
MT=Market-Targeted	47	1.59	20	Mar	RCAsean=Regional Cooperation ASEAN	3	0.1	102	Coo
AA=Aircraft-Added	46	1.55	21	Inf/Res	IO=Investor offer	3	0.1	102	Inf/Res
DR=Demand-Reduced	42	1.42	22	Mar	GP=Government Policy	3	0.1	102	Reg/Pol
AD=Aircraft-Delivered	41	1.39	23	Inf/Res	ApS=Airport slot	3	0.1	102	Inf/Res

Code	No. of cited	%	Rank	Cat.	Code	No. of cited	%	Rank	Cat.
NE=Network Expansion	40	1.35	24	Mar	BuT=Business-Turnaround	3	0.1	102	Oth
RW=Route Withdraw	38	1.28	25	Mar	EcCrG=Economic Crisis-Global	3	0.1	102	Bro
ApD=Airport Improvement/Development	34	1.15	26	Inf/Res	CAd=Competitive Advantage	2	0.07	116	Com
RS=Route-Suspended	34	1.15	26	Mar	CN=No competition	2	0.07	116	Com
SI=Service Improvement	32	1.08	28	Mar	DAtm=Distribution-ATM	2	0.07	116	Dis
MgFP=Management-Financial Performance	32	1.08	28	Oth	DET=Distribution-E Ticket	2	0.07	116	Dis
JV=Join Venture	31	1.05	30	Coo	MgUR=Management-Union Request	2	0.07	116	Oth
SuP=Supplies-Purchased	30	1.01	31	Inf/Res	DO=Distribution-Online Direct	2	0.07	116	Dis
GA=Government Approval	29	0.98	32	Reg/Pol	MC=Market-Changes	2	0.07	116	Mar
FlE=Fleet Expansion	28	0.95	33	Inf/Res	NR=Network Rationalisation	2	0.07	116	Mar
RR=Route-Reinstated	28	0.95	33	Mar	ANSI=Air navigation service improved	2	0.07	116	Inf/Res
MPt=Market Potential	27	0.91	35	Mar	ApCL=Airport Capacity-Limited	2	0.07	116	Inf/Res
FS-Financial Source	24	0.81	36	Inf/Res	HrS=Human Resource-Strike	2	0.07	116	Inf/Res
CorO=Corporate-Ownership	23	0.78	37	Oth	SuD=Supplies-Delivered	2	0.07	116	Inf/Res
ApU=Airport-Usage	22	0.74	38	Inf/Res	DRS=Distribution-Reservation System	2	0.07	116	Dis
FGC=Foreign Government Conditions	22	0.74	38	Reg/Pol	AsaN=Air Service Agreement-Negotiation	2	0.07	116	Reg/Pol
OL=Operation-Launched	21	0.71	40	Mar	CorP=Corporate Performance	2	0.07	116	Oth
SC=Safety Concerns	21	0.71	40	Bro	ADS=Aircraft-Delivery Suspended	2	0.07	116	Inf/Res
TA=Technology-Advancement	21	0.71	40	Tec	ApP=Airport-Poor condition	2	0.07	116	Inf/Res
CorR=Core-Restructuring	21	0.71	40	Oth	DSms=Distribution-SMS	2	0.07	116	Mar
AE=Aircraft Evaluation	19	0.64	44	Inf/Res	ReL=Regional Liberalisation	2	0.07	116	Coo
IS=Investor-Seek	19	0.64	44	Inf/Res	ApRO=Airport-re opened	2	0.07	116	Inf/Res
CH=Competition-High	17	0.57	46	Com	FlH=Fleet Homogeneous	2	0.07	116	Inf/Res
SB=Service-Boosted	17	0.57	46	Mar	DSO=Distribution-Sales Outlet	2	0.07	116	Mar
HrP=Human Resource-Pilot	16	0.54	48	Inf/Res	Ge=Geographic	2	0.07	116	Bro
MV=Market-Void	14	0.47	49	Mar	WTs-Wake of Tsunami	2	0.07	116	Bro
ApC=Airport-Charge	14	0.47	49	Inf/Res	BuLP=Business-Long-term Plan	2	0.07	116	Oth
CoopP=Co-operative partnership	14	0.47	49	Coo	CAn=Competition-Anti	1	0.03	141	Com
SuL=Supplies-Lack	13	0.44	52	Inf/Res	CC=Competition-Changed	1	0.03	141	Com
AsaS=Air Service Agreement-Signed	13	0.44	52	Reg/Pol	CoB=Competitor-Behaviour	1	0.03	141	Com
FGA=Foreign Government Approval	13	0.44	52	Reg/Pol	CR=Competition-Reduced	1	0.03	141	Com
CA=Competition-Avoid	12	0.41	55	Com	CaO=Capacity-Over	1	0.03	141	Mar
CaR=Capacity-Reduced	12	0.41	55	Mar	MRec=Market-Recovered	1	0.03	141	Mar
RCAseanS=Sub Regional Cooperation	12	0.41	55	Coo	FrR=Frequency-Reduced	1	0.03	141	Mar

Code	No. of cited	%	Rank	Cat.	Code	No. of cited	%	Rank	Cat.
FD=Financial Difficulties	12	0.41	55	Inf/Res	MS=Market Segmented	1	0.03	141	Mar
BuI=Business-Investment	12	0.41	55	Oth	TP-Ticket Price	1	0.03	141	Mar
CorC=Corporate Change	12	0.41	55	Oth	MgOP=Management-Operational Performance	1	0.03	141	Oth
FrI=Frequency-Increased	11	0.37	61	Mar	TE=Technology-Efficiency	1	0.03	141	Tec
MR=Market Re-Positioning	11	0.37	61	Mar	ID=Investment Deal	1	0.03	141	Inf/Res
ApN=Airport-New	11	0.37	61	Inf/Res	SuD=Supplies-Delayed	1	0.03	141	Inf/Res
ARp=Aircraft Replacement	11	0.37	61	Inf/Res	SuE=Supplies-Evaluation	1	0.03	141	Inf/Res
SR=Service-Reduced	10	0.34	65	Mar	IFL=Infrastructure Limitation	1	0.03	141	Inf/Res
GC=Government Condition	10	0.34	65	Reg/Pol	InH=Interest Rate-High	1	0.03	141	Inf/Res
CI-Competition-Increased	9	0.3	67	Com	IW=Investor Withdraw	1	0.03	141	Inf/Res
GS=Government Subsidy	9	0.3	67	Reg/Pol	MroE=MRO Expansion	1	0.03	141	Inf/Res
FlPC=Fleet Plan-Changed	9	0.3	67	Inf/Res	MroI=MRO Investment	1	0.03	141	Inf/Res
AG=Aircraft-Grounded	9	0.3	67	Inf/Res	AsaF-Air Service Agreement-Failed	1	0.03	141	Reg/Pol
FrEx=Foreign Exchange Rate	9	0.3	67	Bro	GAg=Government Agreement	1	0.03	141	Reg/Pol
TPI=Ticket Price-Increased	8	0.27	72	Mar	JS=Joint Sales Outlet	1	0.03	141	Coo
ADD=Aircraft-Delivery Delayed	8	0.27	72	Inf/Res	KT=Knowledge Transferred	1	0.03	141	Coo
AR-Aircraft-Returned	8	0.27	72	Inf/Res	ANm=Aircraft -Needed more	1	0.03	141	Inf/Res
CP=Competition-Price	7	0.24	75	Com	ApOC=Airport Ownership-Changed	1	0.03	141	Inf/Res
JA=Join Alliance	7	0.24	75	Coo	FlRa=Fleet Rationalisation	1	0.03	141	Inf/Res
FDRe=Financial Difficulties Resolution	7	0.24	75	Inf/Res	SuS-Supplies-Supported	1	0.03	141	Inf/Res
PoS-Political Situation	7	0.24	75	Bro	DPO=Distribution-Post	1	0.03	141	Dis
TA=Terrorist Attack	7	0.24	75	Bro	GDi=Government Dispute	1	0.03	141	Reg/Pol
AAv=Aircraft Availability	7	0.24	75	Inf/Res	RT=Regulator Transformation	1	0.03	141	Coo
BuP=Business Plan	7	0.24	75	Oth	ARI=Aircraft Rental Increased	1	0.03	141	Inf/Res
OS=Operation-Suspended	6	0.2	82	Mar	ASD=Aircraft-Sourcing Difficulties	1	0.03	141	Inf/Res
GN=Government Negotiation	6	0.2	82	Reg/Pol	FlM=Fleet Modernisation	1	0.03	141	Inf/Res
Hr=Human resource	6	0.2	82	Inf/Res	SuV=Supplies-void	1	0.03	141	Inf/Res
TPR=Ticket Price-Reduced	6	0.2	82	Mar	DPS=Distribution-pooling sale	1	0.03	141	Dis
PN=Privatisation of national Carrier	6	0.2	82	Reg/Pol	SuAL-Supplies-Aircraft Leasing	1	0.03	141	Inf/Res
DB=Demand-Boosted	5	0.17	87	Mar	EcCrA=Economic Crisis-Asian	1	0.03	141	Bro
OR=Operation-Reinstated	5	0.17	87	Mar	EcCrW=Economic Crisis-World	1	0.03	141	Bro
ASc=Aircraft-Scrapped	5	0.17	87	Inf/Res	FI=Foreign investment	1	0.03	141	Bro
FlR= Fleet Renewal	5	0.17	87	Inf/Res	BuMP=Business-Medium term Plan	1	0.03	141	Oth

In conclusion, the explored categories and codes of key change drivers in this first stage of analysis provide the extensive understanding of key changes drivers' categories and their common properties. The frequency cited of each code alone does not represent the significant level to the changes of airline business environment. There will be other research works and analysis to identify the codes' significant level at the later research stages. The next research process is to merge the results from content analysis with those from thematic analysis and interpret them to order to surface the emerged changed/market phenomena of each ASEAN country's airline business environment.

5.5.2 Brunei Darussalam

Brunei has only international air transport market. Airlines serving the country with direct non-stop over flight are all from ASEAN countries which mainly are Malaysia and Singapore. Traffic connected to other regions is put through codeshare operation.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	5	1	2	1	0	2	0	0	0	0
2007	8	0	3	2	2	0	0	3	0	0
2006	4	0	3	0	1	2	0	2	0	0
2005	4	0	0	0	0	0	0	4	0	2
2004	11	2	7	1	4	2	0	3	1	0
2003	9	1	4	0	1	1	0	2	2	0
Total	41	4	19	4	8	7	0	14	3	2
% breakdown		6.56	31.15	6.56	13.11	11.48	0.00	22.95	4.92	3.28
Rank		5	1	5	3	4	9	2	7	8

Table 5-15 Total frequency cited of each category during 2003 -2008: Brunei

Performing content analysis and thematic analysis provides initial interesting findings. The findings from the content analysis are presented in Table 5-15. Marketing (31.15%) and infrastructure/resource (22.95%) factors acquire the highest frequency. The third and forth ranks are regulation/policy (13.11%) and

cooperation(11.48%) factors subsequently. Most of codes cited under market category are related to changes upon serving routes (e.g. route-added and route withdraw) which are caused by changing demand (demand-increased) and airline business plan (e.g strengthen core route and network expansion). Infrastructure/recourses factor involve mainly adding aircraft and sourcing pilot. The Royal Brunei Airline (RBA) changed its CEO twice over the reviewing period. The country's government has progress on adding the country air service agreements, especially in 2004. Codeshare agreement is main activity under cooperation category. Suitability of aircraft is mainly cited under technology factor. Competition factor highlights increasing and high competition from foreign carriers. The SARS outbreak is mostly cited as broad factor affecting changes. Other category refers to RBA's management changes and MRO business unit spin off.

According to Figure 5-2, the thematic diagram illustrates two main essences regarding emerged changes/market phenomena; business turnaround behaviour and reversed effect of market growth.

Business turnaround behaviour: In 2002, Royal Brunei Airline had experienced financial difficulty for the first time and proposed for one-off bailout from the government. In April 2003 the airline launched business plan to reduce US$19.5 million lost occurred a year before and gain US$ 630 million over next 10 years. RBA admitted cutting cost through lay-off its 44 managers which mostly are foreign employees, voluntary retirement scheme, drop low marginal routes and use gain capacity to strengthen core route instead, and spin-off its MRO which is non core business unit. The airline seeks to enhance it status as a 'medium-sized hub and spoke Asian carrier' through fleet and network expansion. The bigger and longer range aircraft was added as a part of the programme. The longer haul non-stop (some has no competitor) and regional routes are added to service. New in flight entertainment (IFE) are installed and frequent flyer programme are launched to enhance customer satisfaction. In addition, strong and long relationships with its suppliers and fleet utilisation improvement have been continuously developed.

Brunei
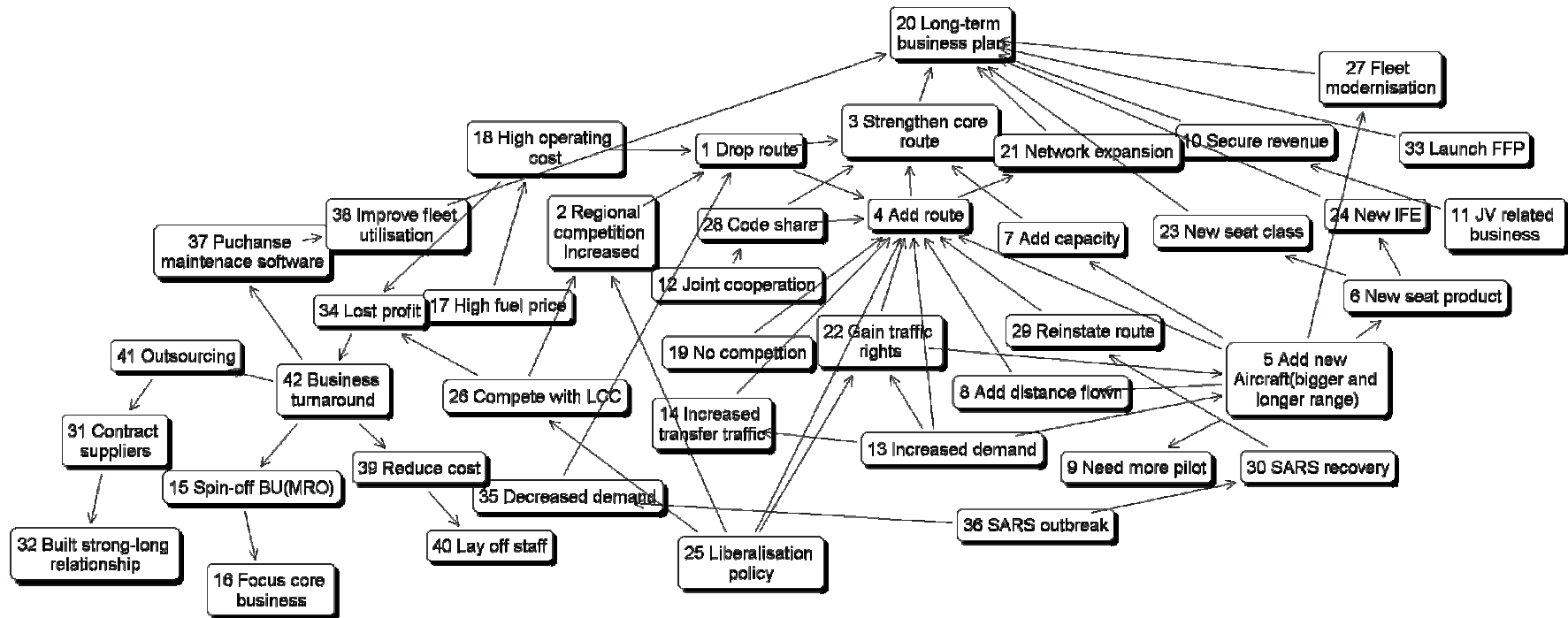
Figure 5-1 Brunei' airline businesses thematic diagram

Reversed effect of liberalisation and market growth: The country's government has put a lot effort to liberalise its air transport industry. During the reviewing period, four air service agreements were signed and two of them are very liberal ones. Such moves result in more rapid traffic growth of both terminal and transfer passengers. In order to capture the increasing demand, the airline had to expand and/or renew its fleet. The lack of some aircraft types and pilot's availability emerged as a short-term challenge. In addition, open skies induced more new competitors entering the market which had limited growth. RBA launched new products to encounter the emerging competition from low cost carrier like AirAsia. In 2005, RBA introduced its new simplified service offering in economy class on short-haul flights so it could reduce costs and cut ticket prices. Fewer frills were offered at the back of the aircraft and fare schemes simplified to be more attractive for the price-conscious customers.

5.5.3 Cambodia

Cambodia is the second poorest ASEAN country in term of GDP per capita. The country has inadequate infrastructure but richness of natural resources. Its politics is still unstable though the national assembly and constitution were set. Since the government tried to implement more liberal regulations, the country's air transport industry had gained more international traffic, mainly from leisure travellers. There were many new airlines launched and suspended operations during the review period. According to the content analysis of the country, the results are shown in Table 5-16.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	3	0	0	0	2	0	0	1	0	0
2007	4	0	1	0	3	1	0	0	0	0
2006	8	1	7	0	2	0	0	5	0	0
2005	2	0	2	0	0	0	0	2	1	0
2004	9	2	5	0	2	2	0	7	0	0
2003	7	0	4	0	2	2	0	2	1	0
Total	33	3	19	0	11	5	0	17	2	0
% breakdown	-	5.26	33.33	0.00	19.30	8.77	0.00	29.82	3.51	0.00
Rank	-	5	1	7	3	4	7	2	6	7

Table 5-16 Total frequency cited of each category during 2003 -2008: Cambodia

The sample size of Cambodia is the second smallest one. There are 33 articles collected from seven airlines in the analysis. Table 5-16 shows the summary of content analysis. The factor, which gains highest frequency, is market (33.33%) followed by infrastructure/resources (29.82%) and regulation/policy (19.30%). The most frequent cited codes under market factor are related to adding route from new established airlines. Airport's limited capacity and condition seems to be the main concerns of Cambodia's infrastructure. Regulation issues are linked to both local and foreign governments' decision toward, mainly, safety regulations. The most of cited codes contributing to cooperation factors are codeshare and joint establishing new airlines. The competition is remarked as too high for very small market like Cambodia. SARS outbreak is still mentioned as a cause of reduced demand which worsen the already difficult situation of many airlines.

The thematic conceptual mapping diagram helps to elaborate more understanding. The mapped concepts with their links shown in Figure 5-2 mainly contribute to causes and effects of the discussing situation. Cambodia's government had tried to open air transport market, but unfortunately, its safety and economic regulations may be not well prepared. As a result, foreign investors withdrew investment in new airline and many airlines found themselves facing financial difficulties and finally had to suspend their operations. The main causes of such incidents are summarised as follows.

- Airport poor condition and limited capacity
- No systematic and fair system in allocating traffic rights
- Ineffective safety and economic oversight system
- Limited number of international traffic rights

The airport condition leads to the market growth limitation. While many born-new airlines joined the market, the critical infrastructure like airport should have been developed in order to support traffic growth induced by those players. The systematic and fair system in allocating traffic right is crucial factor to drive an effective economic mechanism. This could lead to fair competition forcing operator to improve its competitiveness as well as proving feedback for the government to gain more-

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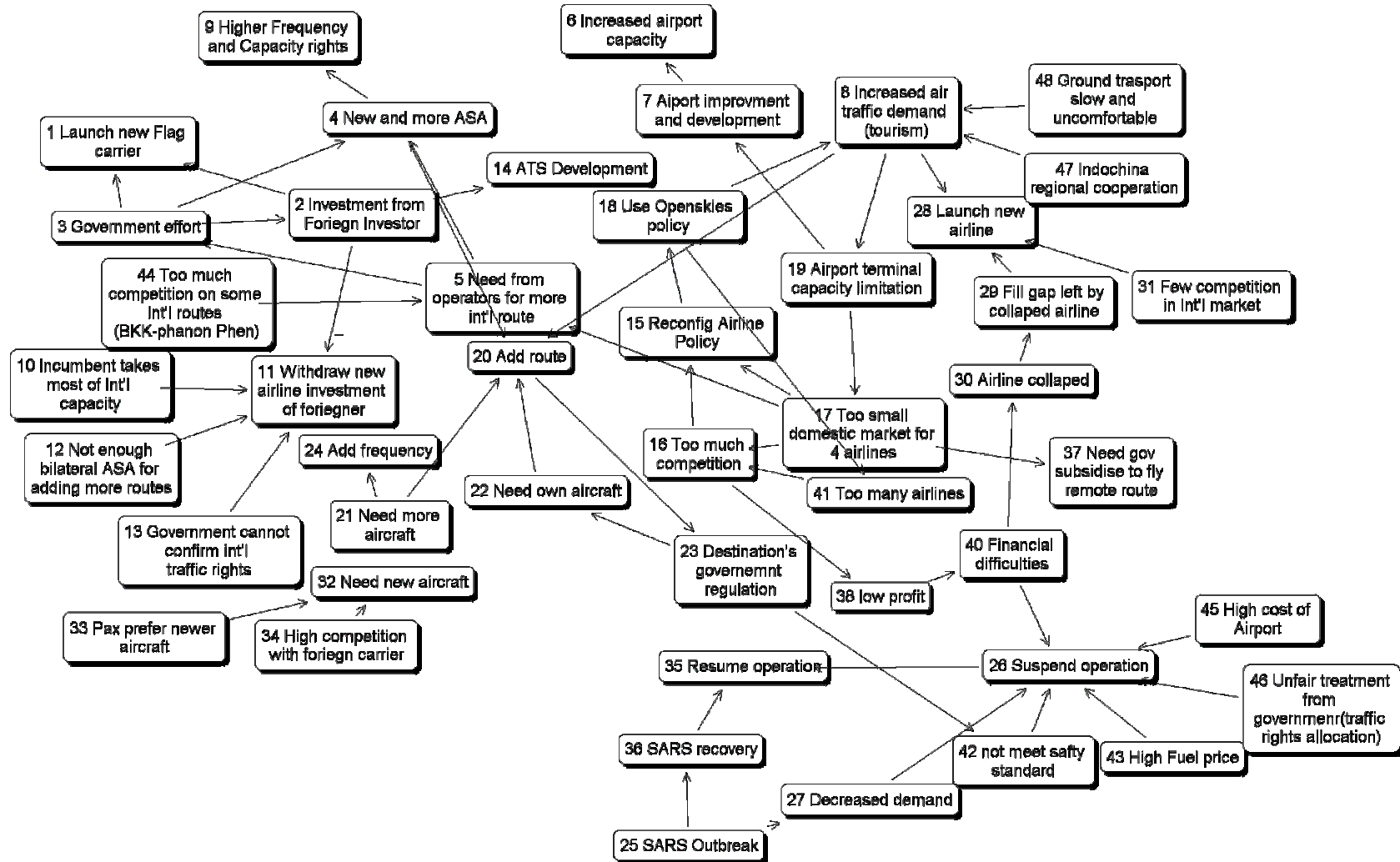
Cambodia

Figure 5-2 Cambodia's airline businesses thematic diagram

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-liberal and new ASAs when needed. Ineffective economic measure system results in having too many airline established and over capacity. The country's safety oversight system was probed by foreign regulatory bodies and found substandard performance, resulting in the EU and the FAA banning all Cambodian airline operators. Finally, a number limitations on an international traffic rights could obstruct expansion of just-established airlines as most of international capacity had been acquired by the incumbents. The new comers were forced to penetrate in the very inadequate domestic market-low income population- and lead to their operations suspended and/or collapsed.

5.5.4 Indonesia

Indonesia, the largest country in ASEAN, produces the highest gross domestic product (GDP) which account at 33% share of all ASEAN nations. The country has been still facing the terrorism problem which adversely affects its tourist industry. Since the liberalisation taking place, the numbers of passenger both international and domestic have been increased dramatically. Competition between full services carriers (FSC) and low cost carriers (LCC) become one of the major change drivers. LCCs have continuously gained more passengers at the expenses of FSC's share.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	75	10	49	6	19	14	1	53	12	10
2007	44	1	12	7	10	7	1	41	3	10
2006	35	4	23	2	10	8	0	21	3	3
2005	54	5	38	6	13	6	0	33	3	6
2004	52	19	53	5	10	9	1	38	10	10
2003	58	10	46	8	3	5	0	39	13	5
Total	318	49	221	34	65	49	3	225	44	44
% breakdown	-	6.68	30.11	4.63	8.86	6.68	0.41	30.65	5.99	5.99
Rank	-	4	2	8	3	4	9	1	6	6

Table 5-17 Total frequency cited of each category during 2003 -20a08: Indonesia

Regarding the content analysis of Indonesia airline business market, there are 318 sampled collected from 21 airlines (see Table 5.8). Infrastructure/recourses (30.65%) and market (30.11%) factors still plays the most substantial roles with the

highest frequency recorded. Regulation/policy (8.86%) posts the third rank. Within the infrastructure /resource category, high fuel price and financial difficulties are cited frequently. Change on servicing routes and airline market positioning holds the highest frequently mentioned item. Grounding airlines' fleet is the most cited item in the regulation/policy categories. Facing-high competition and joint cooperation-venture are the most frequently recorded item in the competition and cooperation categories correspondingly. Regarding the broad factor, the SARS outbreak and safety concerns are mostly mentioned. Other factor involves business investment & expansion and corporate restructuring & management changes as a highest frequently cited. Technology suitability and online direct-ATM-sales outlet distribution channel are mostly cited under technology and distribution categories respectively.

The thematic diagram of Indonesia's airline business is presented in Figure 5-3. The mapped diagram contributes to understanding of market environment and airline behaviour under the country's circumstance. In late 1995, the government started to deregulate the industry. The number of operating airlines has been growth from 4 to more than 20 airlines currently. The destructive competition has been increasing severely. Many airlines, including state-owned operators, had faced financial difficulty, even thought the market has grown promisingly. Moreover, in 2007, there were five airline fatal accidents and all of the country's carriers were put on the European Union's blacklist after Indonesia failed an ICAO safety audit. The government even had to warn its citizens that flying in the country was not safe. Currently, safety seems to be the most critical challenge for both regulator and operator.

Indonesia
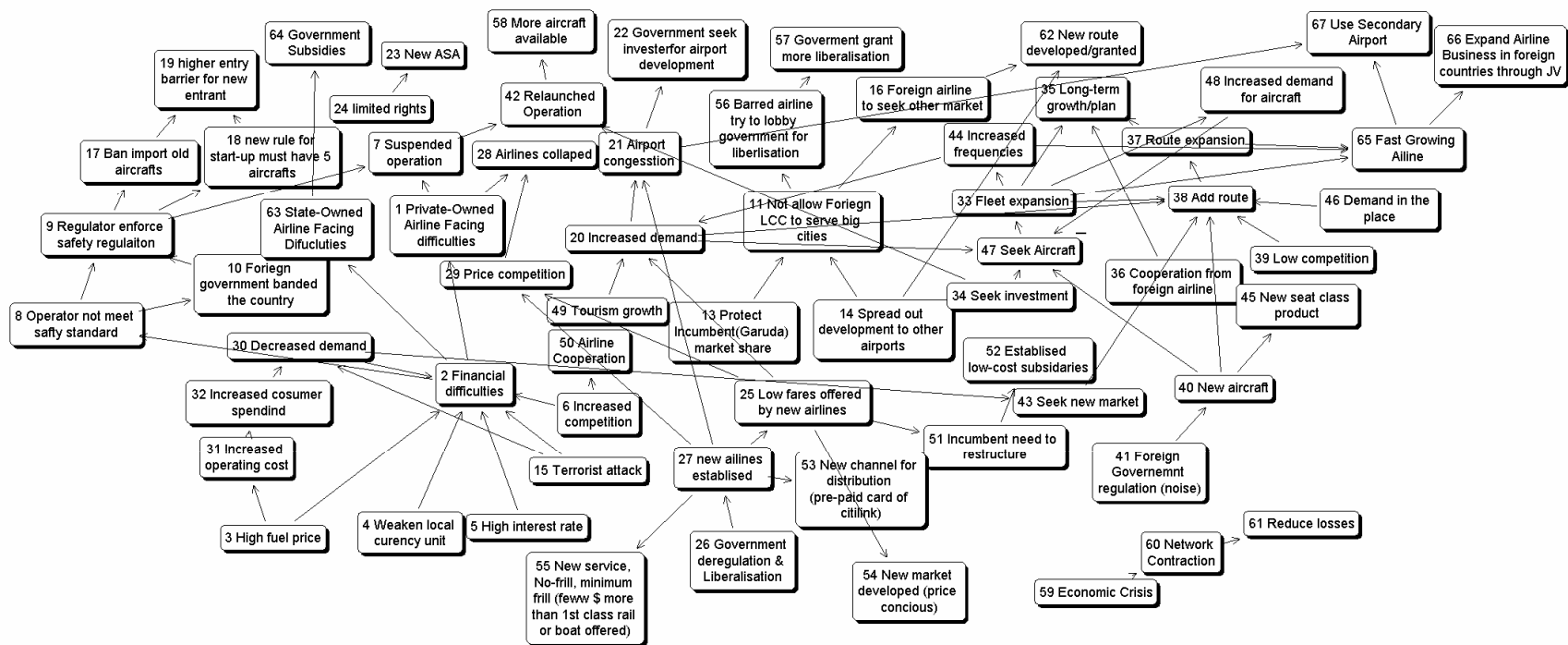
Figure 5-3 Indonesia's airline businesses thematic diagram

The exploration of Indonesia's airline market, facilitated by thematic analysis, could lead to the results concluded emerged changes as follows:

Destructive competition: Since the LCC emerged in the post deregulated market, the *number of airline operators* has been increased rapidly. This makes higher *level of industry competition*, which theoretically, would be better for consumer. The key driver that contributes to this is the government's deregulation, which leads to the *lower level of barrier to entry*. During past 6 years, consumer in Indonesia has enjoyed low fare travelling as a result of *airlines' price war*. Unfortunately, each airline company has a different *level of resource availability*, especially financial one. Such severely competitive behaviour could lead to a number of *operational difficulties*, especially in getting enough cash and allocating it to the right place at the right time, which operational safety should be the first priority for getting such resource. Finally, five hull losses in one single year initiated radical changes in the country. As series of safety audit of regulatory bodies from both inside and outside the country had been placed. Many airlines were grounded and finally the country was banned as performing nonqualified safety oversight system. Therefore, the government demanded regulatory reform to enhance both its safety and economic oversight system. For the economic one, the new rule to bar foreign LCCs from serving big cities was initiated in 2005. This could help fencing up the *level of barrier to entry* to decelerate the competitive rate over such trunk routes. This rule has been removed at a later stage by the lobbying efforts from barred airlines.

Changing airline behaviour: The first behaviour could be observed is *cooperative behaviour* among small airlines. This is the result from higher competition. In in 2001, four Indonesian airlines, Bouraq Indonesia Airlines, Dirgantara Air Service (DAS), Mandala Airlines and Pelita Air Service signed a memorandum of understanding in allied ticketing and joint aircraft operations which could help them better compete in an increasingly cut-throat market. Other behaviour is *avoiding competition* evidenced by the state-owned carrier, Merpati Nusanara repositioning. It announced in 2008 that to cope with the new intense competition it has tried to shift its focus to operating feeder services in the more remote eastern - regions of the country, where there is less competition. The last observed behaviour is *fencing behaviour*. Lion Air, the fastest growing and largest LCC in Indonesia, could

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be the best sample representing this behaviour. The airline is leasing Halim Perdanakusuma Airport from the Indonesian government and Air Force for 25 years and has agreed to invest in upgrades including a refurbishment and expansion of the passenger terminal. The airline founder and president director Rusdi Kirana said that in addition to having advantages by being so much closer to downtown Jakarta, he answered the question-if other airlines will be able to use the airport- that: "They can, but they have to pay me to use my airport. If you are my competitor will you come to my airport? Everything will be under us – security, fuel, everything. If you are my competitor will you go there?" (Ionides, 2006).

5.5.5 Laos

Laos is the lowest population density country in ASEAN. Since Laotian government launched a 'new economic mechanism' in 1986, many economic instruments have been applied and helped to gradually shift away from a central-planned economy to an emerging market economy. Air transport industry has witnessed dramatically growth during the review period, mainly contributing by tourism. Laos has only one operating airline named Lao Airlines serving 14 destinations in the Southeast Asia and Kunming in China. The Laotian government has been putting effort to invite private and/or foreign investor to join developing the airline. Table 5-18 shows the results of content analysis that identify the key change drivers.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/Pol	Coo	Dis	Inf/Res	Bro	Oth
2008	4	1	4	2	1	0	0	2	0	0
2007	1	0	1	1	0	0	0	2	0	0
2006	1	0	3	0	0	0	0	0	0	0
2005	1	0	0	0	0	0	0	1	0	0
2004	2	0	1	0	2	4	0	1	0	0
2003	7	0	8	0	2	3	0	6	0	5
Total	16	1	17	3	5	7	0	12	0	5
% breakdown	-	2.00	34.00	6.00	10.00	14.00	0.00	24.00	0.00	10.00
Rank	-	7	1	6	4	3	8	2	8	4

Table 5-18 Total frequency cited of each category during 2003 -2008: Laos

The sample size of Laos is the smallest one, 16 articles were collected from one airline over six-year period. The results show the factor, which gains highest frequency, is market (34.00%) followed by infrastructure/resources (24.00%) and cooperation (14.00%). The most frequent cited code under market factor is airline's positioning. Seeking investor and ordering aircraft seems to be the main concerns of Laos' resources. Codeshare and joint venture effort are the most of cited codes contributing to cooperation factors. Expanding ASAs and corporate investment have highest frequency recorded under regulation/policy and other categories respectively. Technology suitability has the highest shares of frequency cited under technology factor. Finally, the competition is remarked as increasing for the small market like Laos (see Table 5-18).

The thematic diagram of Laos' airline business is presented in Figure 5-4. The emerged changes could be summarised in one single scene named, *opening market*. The Laotian government has been driving the country's economy growth at the successful rate of 6% per year since 2002. Air transport market could be one of its targets. The government need *resource inflow*, combining of *capital and knowledge,* to prepare the state-owned carrier to be ready for emerging competition. As a result, airline experts were hired and national carrier part-privatisation was introduced. Loss-making flag carrier has been restructured by fleet renewal, network expansion and management improvement. On the other hand, the government also had improved old airport and developed new one in order to meet infrastructure needs.

Laos
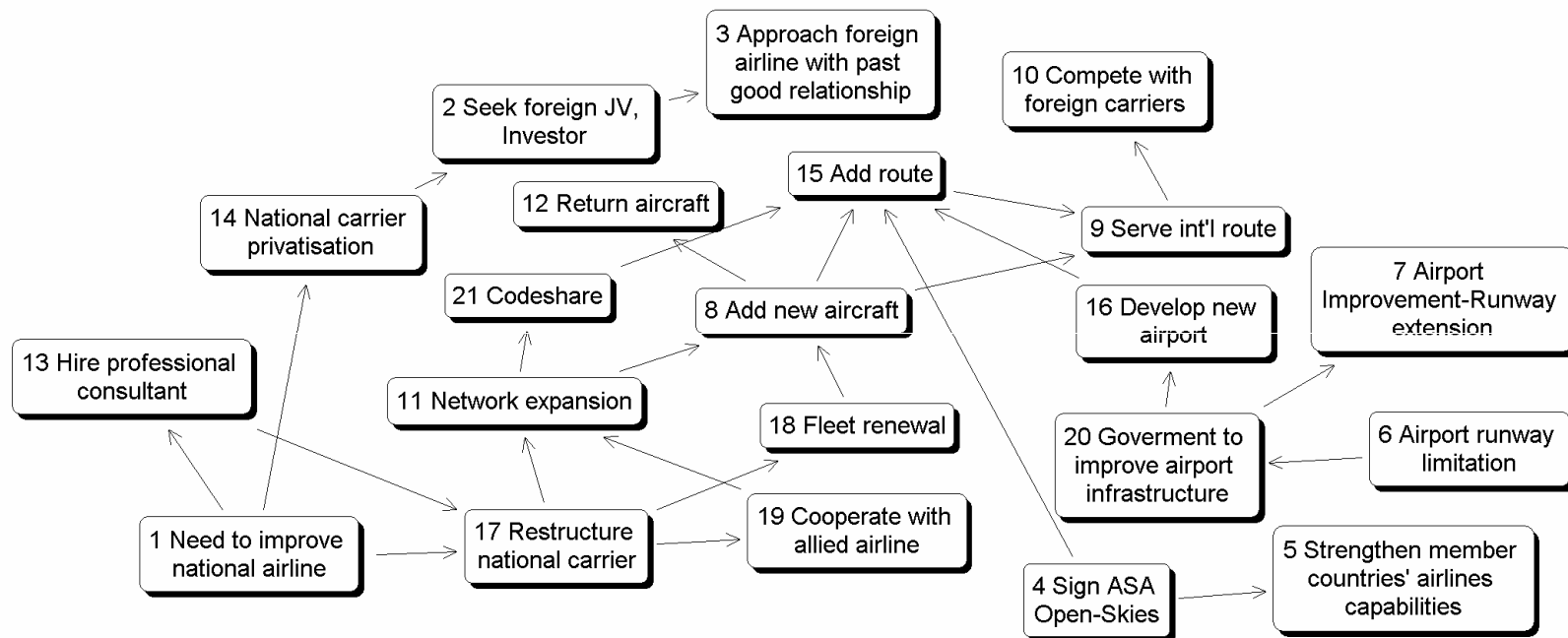
Figure 5-4 Laos' airline businesses thematic diagram

5.5.6 Malaysia

Malaysia is one of the largest countries in Asia-Pacific. The country has the third strongest ASEAN economy and holds the first rank of the number of intra-ASEAN tourist arrivals. The country's air transport market has witnessed the remarkable growth. The country's LCC, AirAsia, is the most well-known LCC in Asia-Pacific and has created many changes in the market it penetrate. In contrast, Malaysia Airlines (MAS) as a flag full-service carrier (FSC) had suffered from financial loss for many years. The government refused to give it a bailout and urged for radical restructuring. It just got first recorded profit in 2008.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	104	4	55	2	12	11	0	38	4	21
2007	79	4	31	0	9	4	1	24	0	16
2006	74	3	39	0	3	10	2	18	0	21
2005	63	3	14	1	8	3	0	30	0	18
2004	58	1	25	2	5	6	0	23	0	6
2003	68	2	43	0	3	5	3	22	6	10
Total	446	17	207	5	40	39	6	155	10	92
% breakdown	-	2.98	36.25	0.88	7.01	6.83	1.05	27.15	1.75	16.11
Rank	-	6	1	9	4	5	8	2	7	3

Table 5-19 Total frequency cited of each category during 2003 -2008: Malaysia

Table 5-19 illustrates the results of content analysis of Malaysia airline business market. There are in total 446 samples collected from 7 airlines. Market (36.25%), Infrastructure/recourses (27.15%), and other (16.11%) are the key factors with highest frequency recorded. The most cited items under market category are related to airline route and adding services. High fuel price, supplies-contracted and airport development are most frequently cited under infrastructure/resource category. The drivers make other factor posting on third rank are MAS's financial performance and AirAsia's business expansion. Within regulation/policy category, many ASAs signed are most frequently recorded, which represents the government's effort contributing to the industry expansion. The highest frequently cited code under cooperation category is produced by MAS's codeshare activities. Facing competition is most frequently cited codes of competitive factor. Regarding broad factors, the SARS outbreak is most frequently mentioned. Distribution by computer reservation

system shares the highest frequency in distribution factor. Finally, technology advancement and suitability are only two codes cited in technology category.

According to Figure 5-5, the mapped diagram shows all concepts and their interrelationships of Malaysia's airline business market phenomenon. The emerged changes that are extracted from the diagram are summarised as follows:

Government roles as sponsor and catalyser: The Malaysian government's intervention could be viewed as these two characteristics. Acting like as *sponsor* means offering direct subsidy for the industry, while *catalyser* is an indirect one. For an indirect subsidy, Malaysia's national airports operator, Malaysia Airports Holdings (MAHB) had introduced an incentive programme for airline customer since 2001 to promote the traffic at Kuala Lumpur International Airport (KLIA). For a direct one, the government subsidises the turboprop services within and between the eastern states of Sabah and Sarawak. These routes used to be loss-making, and after corporate restructuring, MAS dropped those routes. Fly Asian Xpress (FAX), which was established by some of the owners of low-cost carrier AirAsia, took over those routes before passing them back to newly established MASWings, in 2008. In contrast, when the MAS asked the government for bailout, in 2005, to help recover from the financial difficulties, the Prime Minister refused.

Expansion behaviour of LCC: the largest and very successful Malaysian LCC is AirAsia. The airline has implemented three main actions in order to get business expansion sustained. They are *create*, *eliminate* and *penetrate*. The airline *creates* many innovative products. The LLC business model itself is an outstanding creation. It expands the model to many promising markets in other countries by franchising and tying-up with high profile local investors. Booking via Short Message Service (SMS) is another example. In addition, ancillary revenues have been created for services such as checked baggage, priority boarding and new onboard communication service like mobile & internet. To *eliminate* costs, the airline outsources its non-core business like IT and MRO in order to eliminate any burden cost as much as possible. Any unnecessary services or procedure which does not involve safety and is not what targeted customer needs are eliminated as well. To *penetrate* in the targeted market, the airline has to keep cost and fare at the lowest level to enable its competitive advantage.

Malaysia
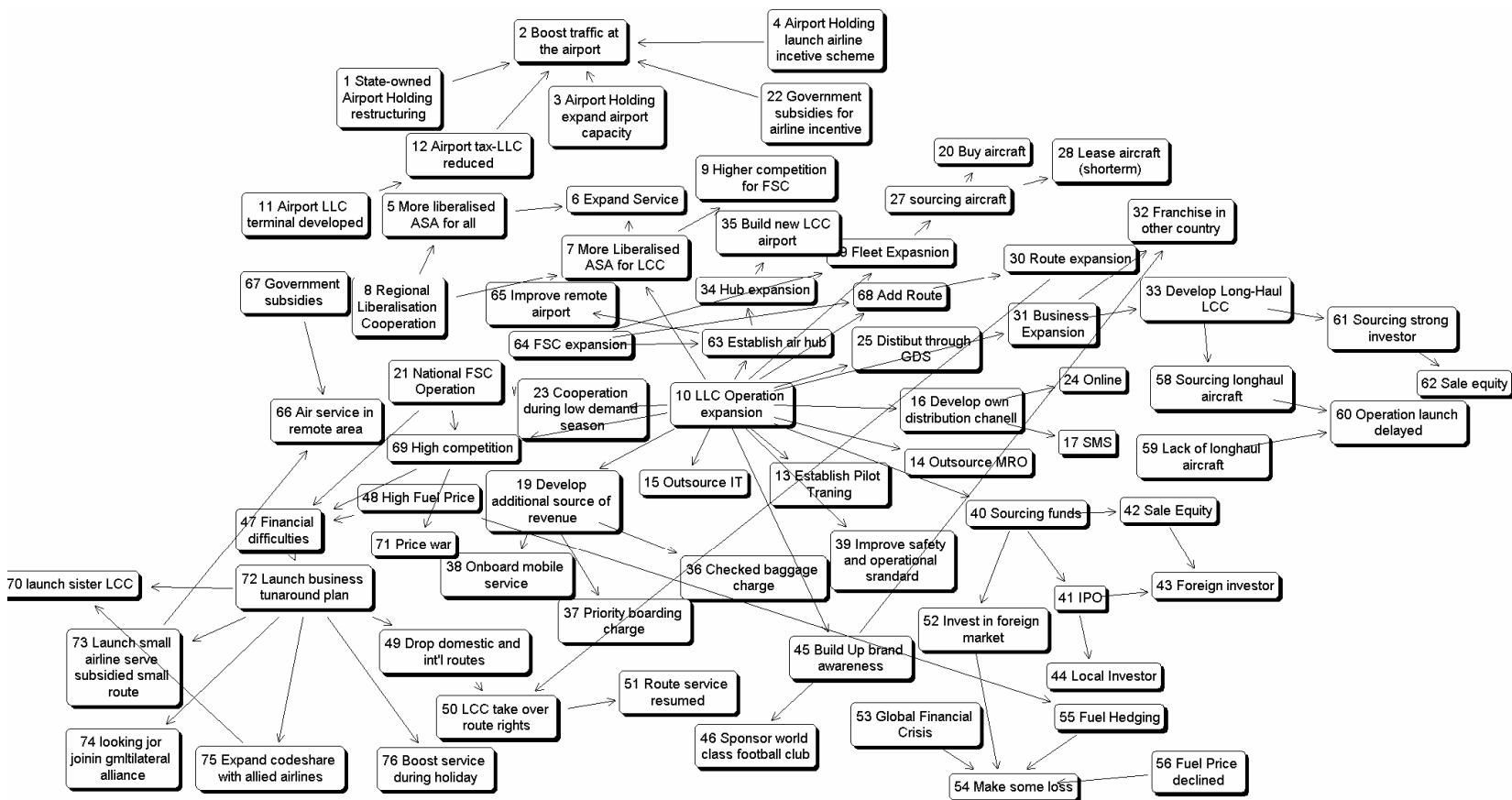
Figure 5-5 Malaysia's airline businesses thematic diagram

Turnaround behaviour of FSC: MAS as a biggest FSC in Malaysia and had been facing the large financial difficulties. In December 2005, newly appointed CEO, Idris Jala, started to improve the loss-making national airline. The 'Business Turnaround plan' was developed under 4 main strategic actions; *reduce, liquidate, collaborate and rebuild*. The airline had to *reduce* many of unperforming resources. At that time (2005), 66 international routes were unprofitable and just 48 were profitable. On the domestic side 114 were losing money and only four were profitable. As a result, dozens of unprofitable routes and thousand of jobs were dropped. At the financial crisis stage-without government bailout, MAS had to *raise* much-needed financial resources. It had to sell some of its few remaining assets, even its headquarter building in Kuala Lumpur's city centre, to build liquidity. The next move is to *rebuild*. MAS launched its new vision called 'five star value carrier'. This is to reposition itself as promising to deliver a high quality product but reduce its cost so that they can offer affordable fares. The last move is to *collaborate* and compete at the same time. MAS has expanded codeshare agreement with many airlines during the reviewing period. The collaboration could be extended to even its competitor in non-customer are, such as pilot raining and MRO. Currently, the airline is looking to join a global alliance as well.

5.5.7 Myanmar

Myanmar is the ASEAN poorest economy in term of GDP per capita. In 2007, the country gained the second lowest number of tourist arrival in ASEAN. Myanmar is still facing international sanction from under house arresting of the opposition party's leader. A number of airlines servicing routes have been suspended due to the sanction. However, Myanmar's air transport traffic has still been rising gradually. The government launched a number of airport developments projects with supports from foreign government like Singapore.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	4	0	1	0	2	0	0	3	1	0
2007	10	0	8	0	1	0	0	2	1	1
2006	1	0	0	0	0	0	0	1	0	0
2005	8	0	5	2	1	3	0	6	0	0

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/Pol	Coo	Dis	Inf/Res	Bro	Oth
2004	10	0	6	0	4	0	0	6	0	0
2003	8	0	6	1	2	4	0	3	0	0
Total	41	0	26	3	10	7	0	21	2	1
% breakdown	-	0.00	37.14	4.29	14.29	10.00	0.00	30.00	2.86	1.43
Rank	-	8	1	5	3	4	8	2	6	7

Table 5-20 Total frequency cited of each category during 2003 -2008: Myanmar

Regarding the content analysis of Myanmar's airline business market, the sample size of the selected article is 41 from 6 airlines. The results are shown in Table 5-20. Like many other countries analysed, the factor gains highest frequency is market (37.14%) followed by infrastructure/resources (30.00%) and regulation/policy (14.29%). Competition and distribution factors have no citing frequency recorded. The most frequent cited codes under market factor are airline's changing route, by either adding or suspending. The infrastructure/resource's code s which are mostly cited, are all about aircraft leasing and related issues. Foreign government's conditions, such as sanction and demanding that Myanmar's airlines operate only dry lease aircraft are the most frequent recorded. Technology suitability has the highest shares of frequency cited under technology factor. Finally, management change, in other category, is the only one cited.

The thematic diagram of Myanmar' airline business is presented in Figure 5-6. The clearly emerged changes in the place are produced by the Myanmar government. The positive side is an effort that has been trying to expand the national carrier's business and set up the new airline. The government still takes control not just of its national carrier, but all operating airlines as some part of their shares are held by the government arm airline, Myanma Airways. Such a centralised policy could lead to a conflict of interests and result in unfair competition which might discourage foreign investors. The political and social unrest in Myanmar obviously deteriorates the airline business growth which could be evidenced by many suspended routes and few growth of tourist arrivals. It could be concluded that the government's policies do limit growth of the market unintentionally.

Myanmar
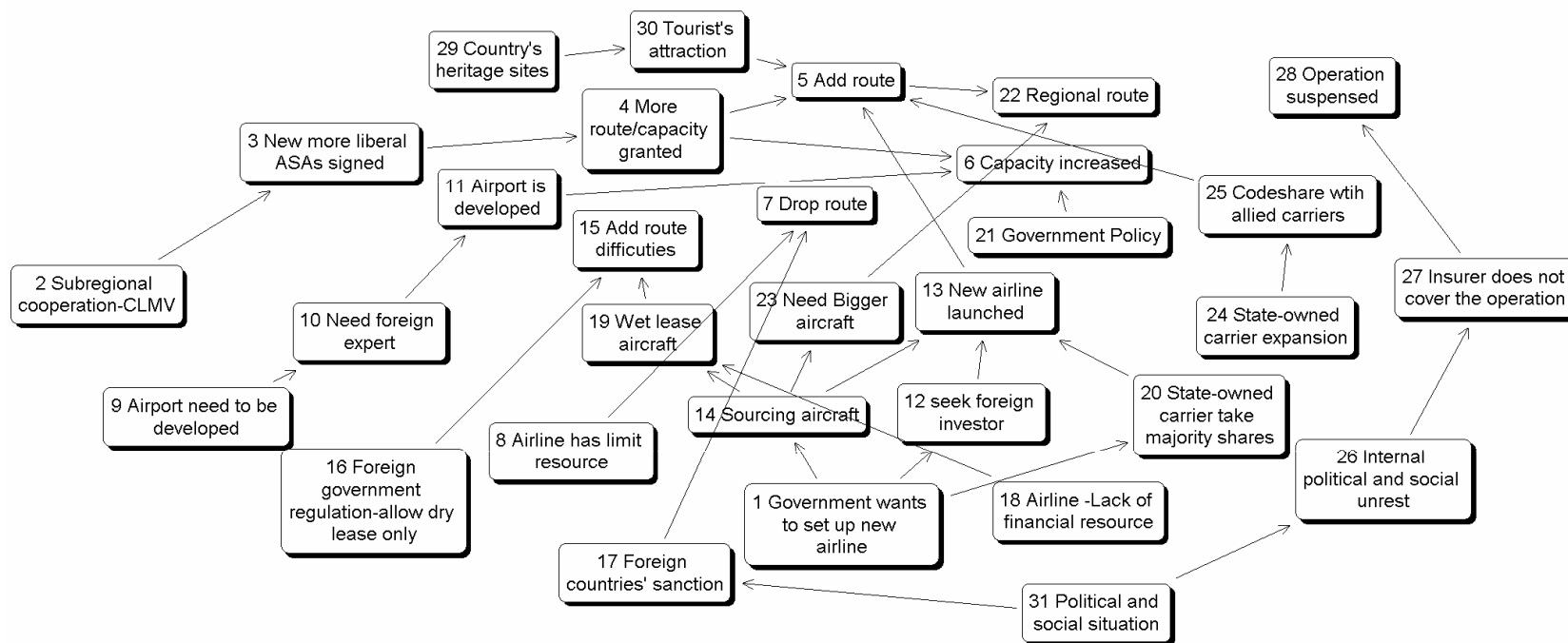
Figure 5-6Myanmar's airline businesses thematic diagram

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5.5.8 Philippines

The Philippines has the second biggest number of population in ASEAN. The country consists of more than 7,000 small islands, which makes air transport more necessary. Its economic growth has lagged behind the fast-growing economies in other Asian countries. The Philippines is the second largest labour-exporting country in the world. More than 7 million Filipinos workers are scattered in 182 countries around the world. This is a huge market for the airline industry. The number of airline passenger carried had been increased by almost 30% over reviewing period.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	46	4	22	0	7	4	0	23	4	5
2007	25	3	12	0	3	1	0	14	1	1
2006	28	1	13	0	3	5	0	15	0	2
2005	15	1	5	0	1	0	0	8	2	1
2004	20	0	9	0	0	3	0	7	2	4
2003	21	0	14	0	0	2	1	4	3	7
Total	155	9	75	0	14	15	1	71	12	20
% breakdown	-	4.15	34.56	0.00	6.45	6.91	0.46	32.72	5.53	9.22
Rank	-	7	1	9	5	4	8	2	6	3

Table 5-21 Total frequency cited of each category during 2003 -2008: Philippines

Table 5-21 illustrates the results of content analysis of Philippines airline business market. There are in total 155 samples collected from 8 airlines. Market (34.56%) and Infrastructure/recourses (32.72%) factors are still the most important. The most cited codes in market category are related to adding airline route and services. Apart from aircraft related issues, airport development and usage, high fuel price and supplies-contracted are cited most frequently in infrastructure/resource category. Details about Philippines Airlines (PAL)'s financial performance and management changes in other airlines make other factors was rank as third most important. PAL's codeshare agreement mainly contributes to code cited in cooperation category. The expanding number of ASA signed lead to the highest frequency share in regulation/policy category. Regarding broad factor, SARS outbreak is mostly mentioned in the sample articles. Facing competition is most frequently cited codes of competitive factor. Distribution by e-ticket is the only one cited in distribution factor.

The thematic diagram in Figure 5-7 represents the results of the key change drivers and their interrelationships exploration in Philippines airline market. The competition in Philippines airline market is very different from other countries in ASEAN. Foreign players are seeking to challenge the incumbents while existing local operators are stepping on each other. Over-all the emerging changes could be summarised that the market is experiencing '*Invading Growth*' which is driven by three key drivers; *growing economy, expanding market size* and *expanding airline*.

The *Growing economy* has directly energised the industry growth on both the demand and supply side. On the demand side, the *size of market is expanding*. The number of both buying power of price conscious and non-price conscious consumers are increasing. This contributes to the *expansion of the supply side*. FSC and LCC could benefit from such growth. Though there could be enough market for everyone, the airlines' expansion is driving more severe competition. The two different segment operators seem to be willing to cross each other's boarder. Air Philippines and Cebu Pacific Air, which operate narrowbody jets, are planning to add turboprop operations, whilst, SEAir and Asian Apirit as turboprop operators are seeking to acquire narrowbody jets. This kind of invasion could increase the hostility level of competition. The bright side of higher competition is that consumer enjoy lowering fares, which in turn will lead to further growth in demand. Interestingly, there is no 'financial difficulties' cited in the samples. This could be interpreted that despite the fact that competition is increasing, but the growing market could be enough for existing operators.

Philippines
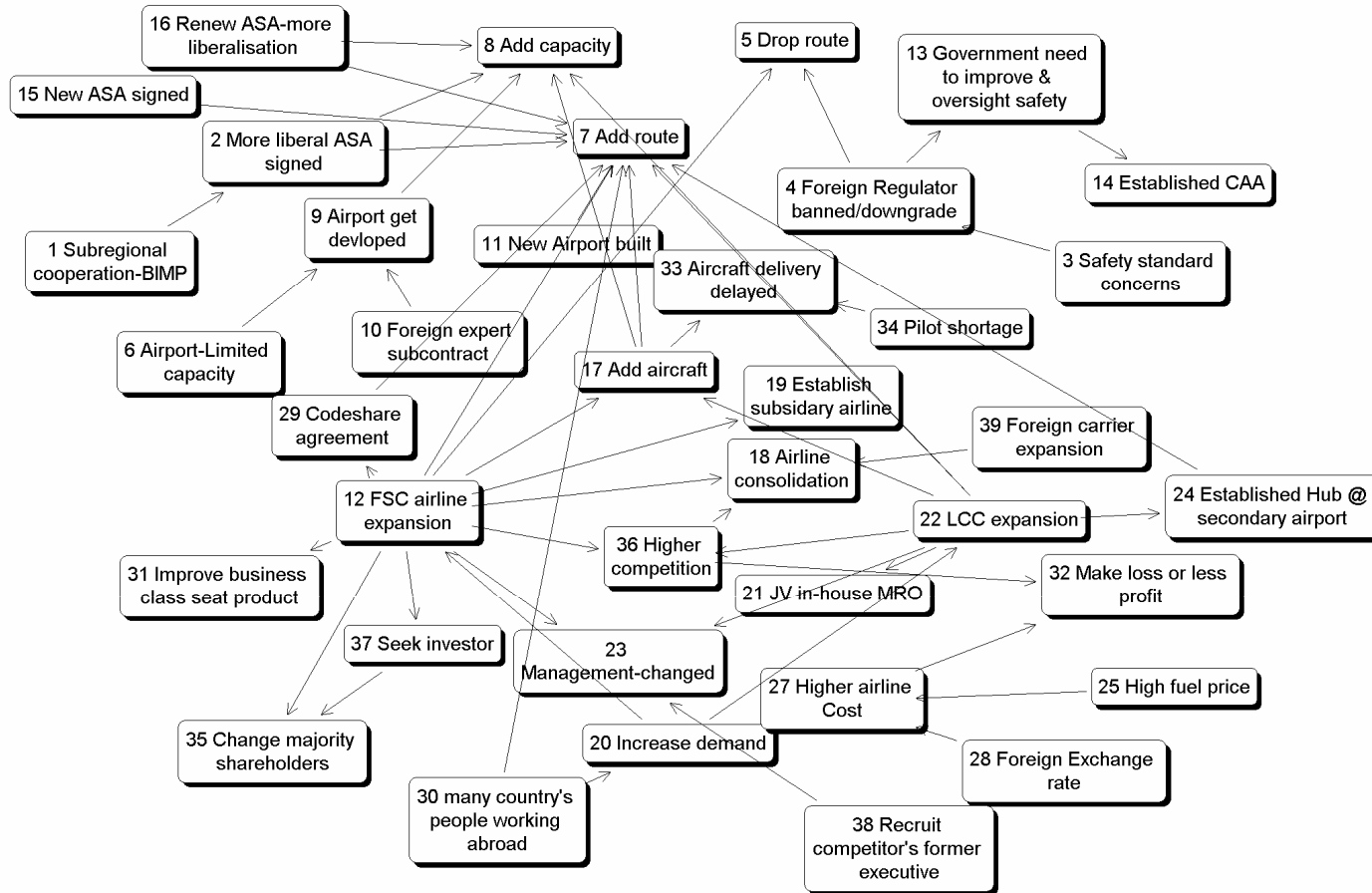
Figure 5-7 Philippines' airline businesses thematic diagram

5.5.9 Singapore

Singapore is the smallest ASEAN country but has the highest GDP per capita. Singapore has very stable politics. The single political party is ruling the country. The country is a highly urbanised city-state. Currently, there are four operating airlines, two FSCs and 2 LCCs. Its air transport industry has grown rapidly. The national carrier, Singapore Airlines (SIA), is one of the best performing airlines in the world. Singapore Changi International Airport, only one commercial airport, has been awarded as on of top 5 best airports for many years.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	93	2	55	1	7	11	0	24	2	11
2007	69	2	30	1	11	5	0	20	2	14
2006	68	2	34	5	7	5	0	23	0	10
2005	102	6	62	2	8	19	0	17	0	10
2004	82	8	37	3	6	12	0	19	6	14
2003	42	0	24	1	5	6	0	9	8	6
Total	456	20	242	13	44	58	0	112	18	65
% breakdown	-	3.50	42.31	2.27	7.69	10.14	0.00	19.58	3.15	11.36
Rank	-	6	1	8	5	4	9	2	7	3

Table 5-22 Total frequency cited of each category during 2003 -2008: Singapore

The results of content analysis of Singapore airline business market are shown in Table 5-22. There are 456 samples collected from 5 airlines. Market (42.31%) and Infrastructure/recourses (19.58%) are again the most frequently discussed factors. The highest frequency cited codes in market category are about airline adding route and service and increasing demand. In the infrastructure/resource category, apart from aircraft and supply related issues, high fuel price and airport development are cited most frequently. The drivers that make Other Factor achieve the third rank are about airlines' business expansion and management changes. SIA's codeshare agreement and other airlines' joint cooperation mainly contribute to most code cited in cooperation category. The number of ASA signed is the highest frequency share in regulation/policy category. Facing competition is the most frequently cited codes of competitive factor. Regarding broad factor, the SARS outbreak is the most mentioned in the sample articles.

Figure 5-8 illustrates the results of thematic analysis. The emerged changes of Singapore's airline business market during the reviewing period could be concluded in two main themes: *fighting while turnaround (FSC)* and *low marginal expansion (LCC)*

Fighting while turnaround (FSC) : SIA, as a national carrier, had been facing two main adverse situations, resulting from 9/11 turmoil and SARS outbreak. These two drivers did not severely harm other ASEAN nations' air transport industry. However, SIA could not rely only on its own country population which, at around 4.5 million, is the ASEAN second lowest population. Inbound international traffic, both terminal and transfer one, play exceptional role toward the industry growth. The World Trade Center terrorist attacked in September 2001 pulls its international traffic down dramatically and led the airline to very difficult time. Again in 2003, SARS outbreak hardly hit the industry for a year. In addition, the intense competition from foreign LCCs had been invading its home market. SIA had launched turnaround plan with series of *reducing & eliminating, liquidating* and *rebuilding* actions. The airline *eliminated* non-core business by outsourcing, excessive staff by lay-off and voluntary retirement, aircraft orders and some low marginal routes and *reduced* serving capacity in many routes and number of operating aircraft by grounding its A340 fleet. SIA *liquidated* its business by raising cash from leasing back its Boeing 747-400 and a 777-200ER to Amsterdam-based IEM Airfinance and selling its non-core asset like some buildings. To *rebuild*, the airline restructured its wage as well as its management system by calling in professional management consultant (L.E.K). On the other hand, SIA had started to fight back and distributed its capital risk through an overseas investment strategy. In 2004, the airline's subsidiary LCC, Tiger Airways, launched service and has gradually gained back more the price-conscious market share. Regarding overseas investment strategy, SIA has commenced the strategy of expanding by buying into other carriers since 2001. Buying into Air New Zealand (ANZ) and Virgin Atlantic were the very first successful deals.

Singapore
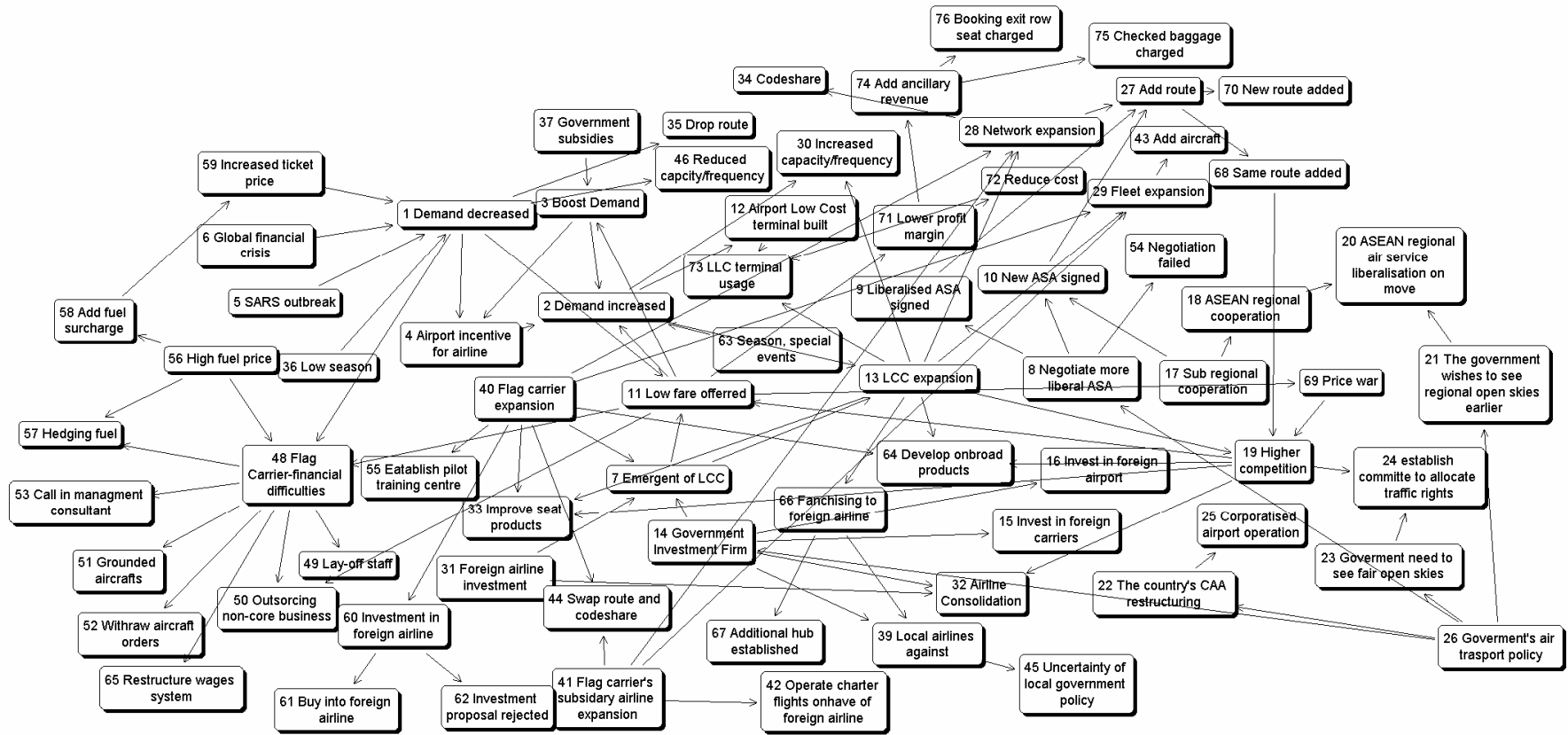
Figure 5-8 Singapore's airline businesses thematic diagram

Low marginal expansion (LCC): In 2004, Singapore witnessed a sudden emergence of low-cost activity by the launch of three carriers; Tiger Airways, Jetstar and ValuAir. The market has been slowly growing and is close to maturity due largely to the restricted bilateral agreements in the region. None of the carriers were profitable in the first three years. In 2007 some profitability was finally achieved, but the margins are not yet sustainable. All three airlines turned into full-year profit in 2008. Singapore's low-cost carriers are still relatively small, operating less than ten A320s. As a result, LCCs have to seek to expand it business by buying into foreign airlines. Jetstar, of which majority shareholders are Qantas Airways and the Singapore Government's investment arm Temasek Holdings, proposed buying into Far Eastern Air Transport (FAT), a Taiwanese carrier that was in financial trouble in 2008. Two year earlier, Tiger Airways commenced to look to partner other companies to set up an associate carrier in another country to enable its business. Philippines is the first target as it was granted five-year operating to/from Clark airport. Originally, the airline had agreed a franchise deal with Philippine carrier Seair based of operations at Manila's secondary Clark airport and to start in February 2007. Unfortunately, Singapore's Tiger postponed the plan to against regulatory uncertainty over the future of its operations there. However, in 2007, the airline successfully established subsidiary in Australia, Tiger Airways Australia, to solely operate domestic service.

5.5.10 Thailand

Thailand is the third largest country in term of land areas and the forth strongest economy in term of GDP per capita, comparing to other ASEAN nations. It has the biggest extra-ASEAN tourism market.   The country has still facing unstable politics as on going opposition's political movement. Thailand is the largest ASEAN air transport market in term of total passenger carried over the review period. At the present, there are eight airlines operating in the country. During 2003-2008, its air transport market had been growing rapidly. One of underlying changes in the market is an emergence of LCCs in 2003 and 2004.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	51	2	27	0	3	5	3	28	4	9
2007	38	1	19	0	2	4	0	19	0	7

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2006	53	0	15	1	4	14	0	15	0	11
2005	70	0	36	3	6	9	1	28	5	7
2004	76	2	44	3	10	12	0	22	0	8
2003	65	4	29	3	6	7	0	24	10	9
Total	353	9	170	10	31	51	4	136	19	51
% breakdown	-	1.87	35.34	2.08	6.44	10.60	0.83	28.27	3.95	10.60
Rank	-	8	1	7	5	3	9	2	6	3

Table 5-23 Total frequency cited of each category during 2003 -2008: Thailand

Table 5-23 presents the explored key change drivers in Thailand airline business market, analysed by content analysis technique. The total 353 samples of ten airlines and the country are collected and analysed. Market (35.34%) and infrastructure/recourses (28.27%) acquire the first two highest ranks. Cooperation (10.60%) and other factors (10.60%) share the same third rank. Adding services, routes and capacity are again the most frequently cited codes in market category. For infrastructure /resource category, apart from aircraft related issues, high fuel price is cited most frequently. Codeshare is the main cooperation activity, while business expansion and management change are the other factors' most frequently cited. The number of signed liberal ASAs holds the highest cited frequency in regulation/policy category. Regarding broad factors, the SARS outbreak and safety concerns are mostly mentioned in the sample articles. Suitable technology is the most cited codes under regulation/policy category. Facing and high competition are the most frequent cited codes as competition factor.

For the thematic analysis,

Figure 5-9 shows the results of the works. All selected-article/new samples are transformed to the concepts and links which could be easier to explore the key changes and their drivers. The main essences that could be extracted from the diagram is Thailand's LCC behaviour as the *constantly changing the business model.* Thailand has seen a launch of low-cost activity since late of 2003, when One-Two-Go became the country's first low-cost carrier launching in December 2003 to serve all domestic routes. At that time, the airline positioned itself as low-cost airline, offering one single low price for each route and using B757-200s aircraft. Early in the next year, B747-200s of its parent airline were used to operate on some domestic routs and MD-82s

were planed to add the fleet. In the mid of 2004, The airline's CEO unveiled a plan to add its 747-200s operation against Malaysian AirAsia on some southeast Asia routes with no-frills services. In the mid of 2005, Its CEO commenced to reposition itself by exploring new aircraft, an extended economy class service, and more flexible fare. Currently, One-Two-Go is serving only domestic routes using its MD-82s, offering some meal and a geographical fixed price with some seasonal discount fares.

The second LCC in Thailand is Thai AirAsia, launched its operation in February 2004, two months after One-Two-Go. The airline is an offshoot of Malaysian LCC AirAsia offering multi-simple price structure and sale-frills services. B737-300s of parent carrier were used. Thai AirAsia seems to be the only one LCC in Thailand that constantly hold its original market positioning. It have expanded network to mainly trunk domestic and regional routes. The airline has never offered any in-flight services for free, in contrast, new for-sale services have been introduced continuously such as checked baggage and priority boarding charges.   Nok Air, the third Thailand's LCC, launched its service in late July 2004, positioning as low-fare carrier, with a simple price structure and initially targeted the domestic market with 2 seat classes on its 737-400s. Nok Air had tried to add a number of international routes in China, Vietnam and India but all are suspended due to low load factors and low market share gained. In late 2005, the airline started to take over its part owner Thai airways' ATR 72s operations. In early 2006, it announced the codeshare with Thai airways, plan to launch sub-brand career to operate taken over ATR routes and forming alliance with Indian domestic low-cost Air Deccan for pooling their ticket sales. In early 2007, the airline added another codeshare with Thai small feeder airline. In 2008, its CEO admitted that the airline to increase its fares by focusing more on the business market through the launch of a corporate programme. It is also focusing on ancillaries, selling holiday packages on its website.

Thailand
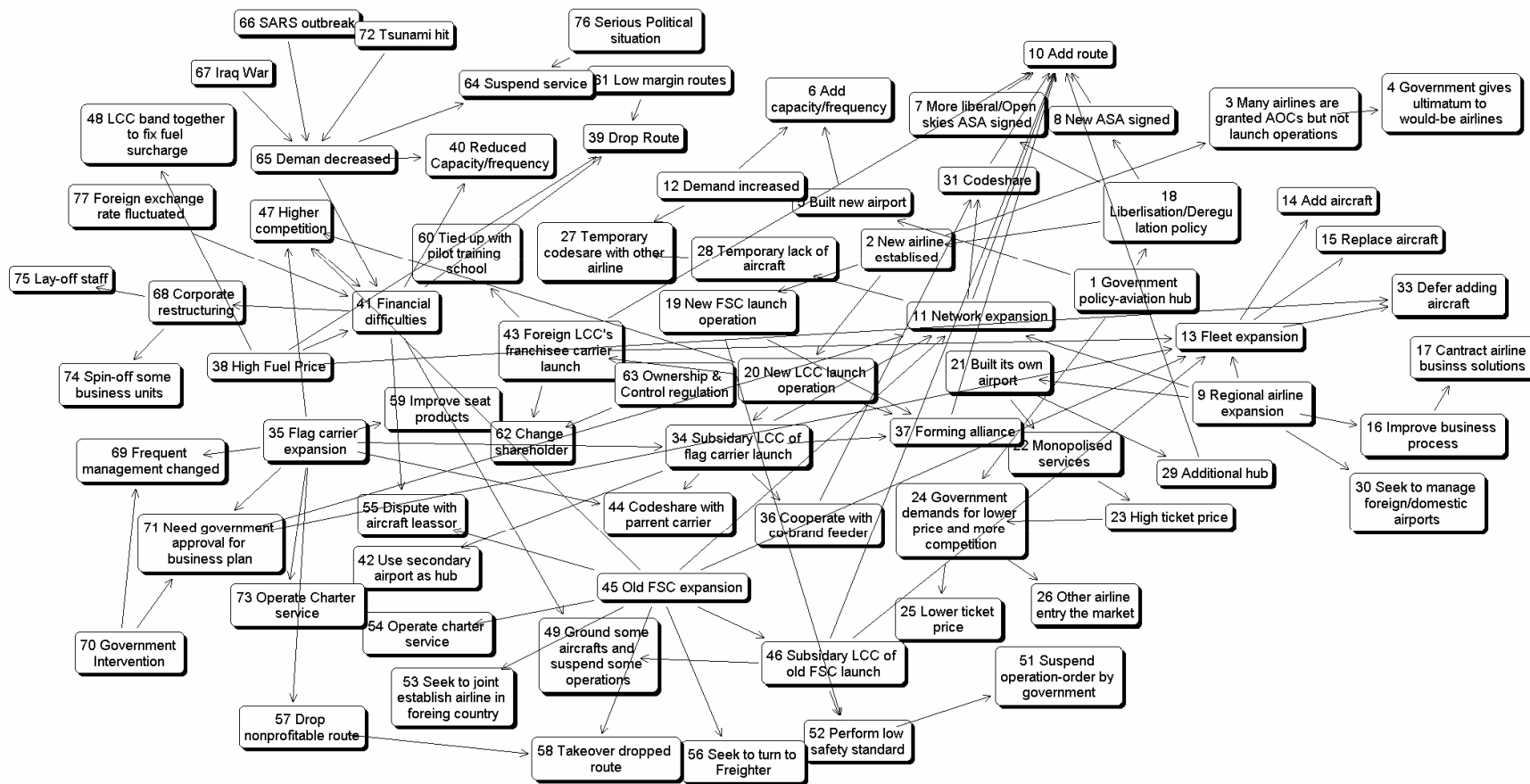
Figure 5-9 Thailand's airline businesses thematic diagram

5.5.11   *Vietnam*

Vietnam has the second largest land area and the highest number of population with the highest GDP, merchandise trade volume and number of extra-ASEAN tourist arrivals, comparing to other BCLMV countries. Since 1986, after launching 'Doi Moi' reform package, the country has been in transition from a central planned to a market-based economy. The package included some forms of private enterprise, competition and Foreign Direct Investment (FDI). During 2003-2008, the country's airline industry had witnessed a double growth of carried passenger number. There are more than 2 million passengers increased. Currently, Vietnam has six operating airlines, half of them are either part or full own by the government. In December 2003, the country and USA signed a historic air service agreement, allowing airlines to operate passenger and cargo flights between the two countries for the first time since the end of their war in 1975. Table 5-24 shows the results of content analysis that identify the change drivers.

Frequency of cited codes	No. of articles	Com	Mar	Tec	Reg/ Pol	Coo	Dis	Inf/ Res	Bro	Oth
2008	26	2	11	1	5	3	0	12	0	2
2007	28	1	11	0	3	3	0	11	0	5
2006	18	0	1	0	3	2	0	12	0	0
2005	11	1	5	0	0	2	0	4	0	2
2004	23	0	7	0	1	2	0	12	0	1
2003	19	0	7	0	6	1	0	5	3	0
Total	**125**	**4**	**42**	**1**	**18**	**13**	**0**	**56**	**3**	**10**
% breakdown	*-*	*2.72*	*28.57*	*0.68*	*12.24*	*8.84*	*0.00*	*38.10*	*2.04*	*6.80*
Rank	*-*	*6*	*2*	*8*	*3*	*4*	*9*	*1*	*7*	*5*

Table 5-24 Total frequency cited of each category during 2003 -2008: Vietnam

Regarding the content analysis of Vietnam's airline business market, the sample size of the selected article is 125 collected from 6 operating airlines. The results are shown in Table 5-24. As for other countries, the factor gains highest frequency is infrastructure/resources (38.10%) followed by market (28.57%) and regulation/policy (12.24%). The most frequent cited codes in infrastructure/resource factor, apart form aircraft related issues, are airport development and usage. The market's codes which are mostly cited are about airline's changing routes. Expanding the number of ASA signed shares the highest frequency in regulation/policy category. The codeshare activities of Vietnam Airlines contribute the highest frequency cited in

cooperation category. For the other factor, changing corporate ownership structure is cited most frequently. Facing competition is cited as the highest rank in competition category. SARS outbreak is still mostly mentioned as broad factor. Finally, technology suitability has the highest shares of frequency cited under technology factor.

The thematic diagram of Vietnam' airline business is presented in Figure 5-10. It could be clearly seen that the Vietnamese government plays a very important roles in driving changes in the place. Its efforts could be summarised as follows; *improving state infrastructure, adding traffic rights, promoting investment* and *re-regulating rules*. Regarding *improving state infrastructure*, airport and air navigation services (ANS) are the main concerns. The government started to upgrade its air navigation services (ANS) in 2003 and launched the new ATM system in 2006. Since 2003, many airports have been improved, developed and reopened to accommodate growing traffic. In 2007, it announced long term plan to quadruple airport capacity by 2020. In order to *add traffic rights*, the historic Vietnam-USA ASA signed in late 2003 obviously reveals the government's determination toward the open skies policy. During the reviewing period, there were 3 new and 6 renew-more liberal ASAs signed.

To *promote investment*, in 2006, the Vietnam's Civil Aviation Authority announced to raise the ceiling on foreign ownership of locally registered airlines from 30% to 49% which should lead to the establishment of new carrier and/or buying into existing airlines. In addition, the government had kept moving forward with plans for a part-privatisation of its national carrier, Vietnam Airlines, up to 20% sold through an initial public offering (IPO) in 2008. Finally, regarding *re-regulating rules*, to facilitate the traffic growth, the government had rolled out the domestic passenger airfare reunification process, started from 2001 and completed in 2003, which made foreigners being charged the same as locals for domestic airfares. Another example is when the government to stop issuing new airlines licenses for some time to slow down the rapidly increasing competition.

Vietnam
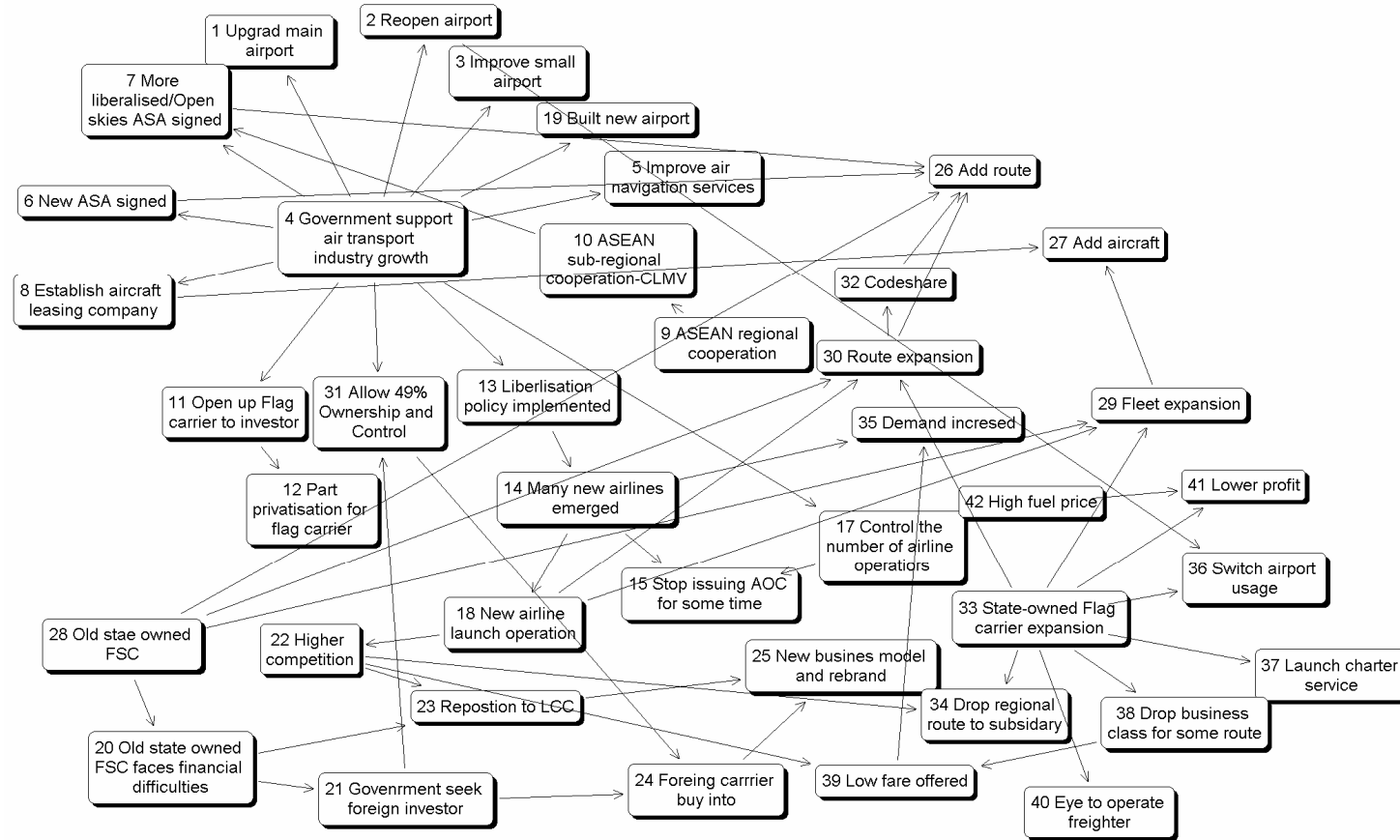
Figure 5-10 Vietnam's airline businesses thematic diagram

5.6 General Conclusions

Findings from the content analysis and thematic analysis presented above are just the initial results of the first research stage. For the content analysis, the findings are the lists and categories of explored key change drivers which are prioritised by the frequencies of cited code. However, it does not mean that the highest frequency always represents the most importance. These findings offer more understanding toward each emerged driver and its common properties in particular category. The researcher needs to do further analysis about the generalisation of the key change driver categories at the final research stage. For the thematic analysis, concepts' links and interrelationships are discovered. Furthermore, there are many essential issues arisen from the mapped models. Regarding each country's thematic diagram, the conceptual mapping is analysed by an inductive approach to interpret and summarise either the main theme of emerged changes and their properties or the emerged changes and only their causes, depending on the richness of acquired data. The more in-depth analysis is undertaken at the last stage of the research, when the constant comparative analysis is performed to compare all related findings from the second research module and generalise emerged changes/market phenomena.

The findings from the first research module could lead to the initial conclusions that market, infrastructure/resource, other, cooperation, government's regulations/policy, competition, broad, technology, and distribution factors are explored key change drivers playing vital roles in the ASEAN airline business environment. All of them are inter-connected to each other. Changes of each particular driver could lead to others' changes consequentially. In addition, each country market's context and airline strategic behaviours have both common properties and different characteristics. All of these initial findings will be integrated with the findings from the second research module and analysed by comparative method at the final stage of the research in order to generalise key change drivers, emerged change/market phenomena and develop the new conceptual frameworks for airline business environmental analysis.

6 The In-Depth Field Study of Airline Market in Thailand

This chapter presents outputs of the second research module (RM 2) covering the investigation of the airline market in Thailand. The main research objectives are to discover underlying change drivers and the emerged changes and to understand, in-depth, the phenomena of airline business in Thailand. The 'single-embedded case study' and 'mixed methods' are employed as research methodologies. Therefore, two research sub-modules are constructed. The first research sub-module (RM 2-1) aims to explore key change drivers with their interrelationships and the changes that have emerged in Thailand's airline market. The second one (RM 2-2) is designed to indentify the industry executives' and experts' perceptions toward significant level of each key change driver and emerged change. The findings from these two research sub-modules will be combined with results from the first research module to produce generalised and/or developed outputs in the next chapter. In order to achieve such research objectives, understanding of the market context is vital. The first part of this chapter engages with Thailand's market context. The second, third and forth parts present the changes' investigation of the country's airline market in these aspects; industry characteristics, airline industry structure and competition, and intra-industry analysis. The following two main parts illustrate both research sub-modules' samples, processes and results. The last part provides a general discussion and key conclusions.

6.1 Country's Market and Context

Thailand's market is investigated through three selected dimensions of its population; distribution and density; income and expenses; transport, leisure and recreation. These dimensions provide the understanding toward changing country's market characteristics and its consumer lifestyle.

Figure 6-1 Map of Thailand and its neighbouring countries

6.1.1 Growing Buying Power and Changing Consumer Lifestyle

Growing Population, proportion of adults, educational level attained and urban households: Thailand is facing an upward trend in total population growth. The number increased 12.8% from nearly 56 million people in 1995 to 63.1 million in 2007. From 2004 to 2008, the population growth increased at around 2.3% in total. In addition, the median age of the population increased from 27.4 in 1995 to 33 in 2007. Regarding the population's education, the National Education Act states that people shall equally receive at least 12 years of compulsory education without any fees, provided by the state. This compulsory education leads to growing number of Thais completing primary and secondary levels of education. In Thailand, educational level attained is widely used as a criterion to distinguish job applicants and reflects social status. This attitude remains and drives the higher percentage of Thais enrolled in higher education, rising from 5% in 1995 to 8.2% of the total population in 2007. Lastly, Thailand's urban households grew sharply during the review period. The highest population

concentration is in Bangkok, the country's capital. Total urban households increased 37.1% from 4.7 million in 1995 to 6.5 million in 2007 whereas total rural households increased by 21.5% from 9.3 million in 1995 to 11.3 million in 2007. A number of companies, shopping complexes, educational institutes and state agencies are concentrated in Bangkok and other big cities; such as Chaing Mai in the North, Udon Thani in the Northeast, Chonburi & Rayong in the East, Hat Yai in Songkla province of the South. Therefore, Thai people migrated to Bangkok and other big cities nationwide for more job opportunities and higher education. (See Table 6-1 and Table 6-2)

Region	Land Area-km^2	2004	2005	2006	2007	2008
Whole Kingdom	513,115.0	61,973,621	62,418,054	62,828,706	63,038,247	63,389,730
Bangkok	1,565.2	5,634,132	5,658,953	5,695,956	5,716,248	5,710,883
Central Region	102,336.0	14,797,068	15,030,613	15,264,732	15,409,587	15,615,968
Northern Region	169,644.3	11,842,299	11,883,517	11,890,752	11,871,934	11,878,641
Northeastern Region	168,855.3	21,267,426	21,328,111	21,376,830	21,385,647	21,442,693
Southern Region	70,715.2	8,432,696	8,516,860	8,600,436	8,654,831	8,741,545

Table 6-1 Thailand's population from registration and land area by region: 2004-2008
Source: Department of Local Administration, Ministry of Interior

Categories	1995	2000	2007	1995-2007 % Growth*
Median age of population	27.39	29.72	32.96	5.58
No education ('000s)**	18,491	18,527	17,604	-4.80
Primary education ('000s)	11,298	10,793	11,193	-0.93
Secondary education ('000s)	9,317	12,190	16,022	71.96
Higher education ('000s)	2,819	3,654	5,152	82.78
Other education ('000s)	14,029	13,712	13,166	-16.8
Urban households('000s)	4,732.51	5,405.50	6,489.04	37.12
Rural households('000s)	9,301.17	10,256.80	11,300.8	21.50

*Calculated by % of the population / % growth, **Include all ages of population*
Table 6-2 Thailand's changing demographic: 1995, 2000, 2007
Source: National statistical office and Euromonitor International

The growing population leads to rising demand on goods and services. Especially for adults over age 30. According to consumer lifestyles in Thailand report of Euromonitor International (2009a), the report states that the adults over age 30 tend

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to require more convenience, modern patterns and differentiation in the products they consume. The increasing number of higher-educated people has led to a shift of tastes in products and services delivering to this group. These people mostly work for private companies, public agencies and government agencies in urban areas. They value more functional products and technology, as well as reliable brands of products and services with less price sensitivity. Higher-educated Thais prefer products and services that reflect their higher educational status and modern lifestyles. At the same time, groups with only primary or secondary levels of education tend to be more price sensitive. Lastly, growing urban households, which is driven by education and work migrant, could lead to rising demand of transportation. Furthermore, in Thailand, there are a number of culture-related holidays bringing all Thais back to their home.

Rising country's output, population income and their expenses on transport and leisure: during the review period (2001-2007), the country experienced a rapid growth of gross regional product (GRP). Eastern region gained the highest GRP growth at 105.02 % because of governmental policy to develop the eastern seaboard and industrial estate in the region. The mean annual disposable income, per capita income (PCI), in Thailand significantly increased in all regions. Such increases can be explained by a growing economy and a better business environment after the 1997-1998 Asian economic crisis. In addition, Thai people demands more leisure and recreational activities amidst their highly competitive work environment. Thus, expenditures for activities within this sector have raised more than double (114%) from 1995 to 2007. Transport expenses rose 87% from Bt449.2 billion in 1995 to Bt831.1 billion in 2007 making it the second most important area of consumer expenditure. The country also experienced a surge in communication expenditures with 77% growth during 1995-2007 due mainly to the increasing popularity of mobile phones. (See Table 6-3 and Table 6-4)

Unit: GRP- million Baht and PCI-Baht

Region	Categories	2001	2004	2007	2001-2007 % Growth
Whole Kingdom	GRP	5,133,502	6,489,476	8,469,060	64.98
	PCI	81,697	100,564	128,239	56.97
Bangkok and Vicinities	GRP	2,453,931	2,880,908	3,599,131	46.67

Region	Categories	2001	2004	2007	2001-2007 % Growth
	PCI	233,811	262,438	316,350	35.30
Sub-Central Region	GRP	346,960	471,886	595,523	71.64
	PCI	116,274	157,619	197,963	70.26
Eastern Region	GRP	677,942	961,921	1,389,931	105.02
	PCI	162,750	223,510	312,325	91.90
Western Region	GRP	217,535	274,042	357,530	64.35
	PCI	61,009	76,287	98,690	61.76
Northern Region	GRP	442,362	568,063	763,010	72.49
	PCI	37,676	47,742	63,388	68.25
Northeastern Region	GRP	529,137	682,192	904,611	70.96
	PCI	24,604	30,897	40,165	63.25
Southern Region	GRP	465,635	650,465	859,325	84.55
	PCI	55,578	74,889	95,229	71.34

Table 6-3 Gross regional product (GRP) and per capita income (PCI) at current market prices by region: 2001, 2004, and 2007
Source: Office of the National Economic and Social Development Board and Author's calculation

Unit: Billions baht

Categories	1995	2000	2007	1995-2007 % Growth*
Food and non-alcoholic beverages	756.0	1,088.1	1,148.0	51.86
Alcoholic beverages and tobacco	179.5	243.9	248.1	38.23
Clothing and footwear	470.8	362.6	341.5	-27.47
Housing	256.9	342.5	348.0	35.45
Household goods and service	352.7	261.2	253.5	-28.13
Health goods and medical services	223.8	272.7	282.5	26.23
Transport	*445.2*	*754.5*	*831.1*	*86.66*
Communications	*44.6*	*75.0*	*79.0*	*77.14*
Leisure and recreation	*141.2*	*277.4*	*302.4*	*114.21*
Education	32.3	41.3	41.7	29.23
Hotels and catering	316.5	338.7	336.9	6.46
Miscellaneous goods and services	132.8	330.1	390.9	194.4
Total	**3,352.2**	**4,388.0**	**4,603.6**	**37.33**

Calculated by % of the population / % growth

Table 6-4 Consumer expenditures by broad category: 1995, 2000, and 2007
Source: National statistical office, Euromonitor International and Author's calculation

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The stronger economy and higher incomes could lead to shifts in the social system, buying behaviour and consumer life-style. To reward the hard work and relief from higher competitive working environment, many Thais prefer to spend more money and time on leisure activities such as reading, playing sports, and travelling. The growing economy in all regions could also induce more business activities and trips linking all regional hubs together. Such increases may explain the growing demand for transport services, especially for air transport which offers faster and more convenience service. In Thailand, employees are normally granted 40 days of annual paid leave: 10 days for personal leave; 10 days for vacation and 30 days for sick leave. There are at least 13 national and religious holidays per year. When national or religious holidays fall on Friday or Monday, it is common for Thai workers to spend those longer weekends for travel in the country or to other countries nearby. After the introduction of low-cost airlines in 2004, travel to other big cities and neighbouring countries become more affordable, encouraging people to travel more frequently. Thailand's low-cost airlines are Thai AirAsia, Nok Air and One-Two-Go. Budget carriers cover domestic routes in dense population regional provinces, including Chiang Mai, Chiang Rai, Hat Yai, Phuket, Surat Thani, Udorn Thani, Khon Khaen, and Ubon Ratchathani (see Table 6-5).

Airport		2001	2002	2003	2004	2005	2006	2007	2008
Chiang Mai	Pax:'000	2,090	1,921	1,837	2,612	2,725	2,886	2,926	2,730
	% growth	n.a.	-8.08	-4.41	42.23	4.33	5.91	1.39	-6.71
Chiang Rai	Pax:'000	533	457	417	606	682	686	754	679
	% growth	n.a.	-14.24	-8.75	45.26	12.56	0.61	9.81	-9.83
Hat Yai	Pax:'000	180	163	162	196	205	285	356	337
	% growth	n.a.	-9.45	-0.62	20.65	4.88	38.81	24.93	-5.40
Phuket	Pax:'000	2,220	2,226	2,098	2,801	2,238	2,999	3,499	3,307
	% growth	n.a.	0.25	-5.74	33.52	-20.10	34.03	16.65	-5.49
Surat Thani	Pax:'000	664	622	635	1,054	1,099	1,155	1,309	1,263
	% growth	n.a.	-6.40	2.11	66.13	4.19	5.12	13.35	-3.52
Udorn Thani	Pax:'000	373	356	357	613	672	675	691	652
	% growth	n.a.	-4.75	0.42	71.57	9.67	0.35	2.43	-5.56
Khon Khaen	Pax:'000	387	374	387	508	460	386	390	386
	% growth	n.a.	-3.21	3.32	31.21	-9.37	-16.02	0.83	-0.85
Ubon Ratchathani	Pax:'000	246	229	252	352	387	371	383	389
	% growth	n.a.	-6.97	10.37	39.48	9.92	-4.21	3.19	1.66

Table 6-5 Total domestic passenger number and % growth at eight main provincial airports: 2001-2008

Considering the surge in the population, especially for the adult group, country's output, and per capita disposal income, the market *buying power* could be propelled by these growing drivers. The middle class and age population are expanding. They have financial performance and stability, represent high market potential group with higher education level attained, and tend to be motivated by more convenience, differentiated and modern goods and service (Euromonitor, 2009a). These could represent the shifts of *consumer lifestyles* from the traditional to the modern way. Time saving, convenience, differentiation and reasonable prices are more considered as an influencing factor in buying decision processes. Therefore, airline business could benefit from such changes as it offers those needed quality.

6.1.2 Expanding Tourism Market and Air Travelling

Growing Inbound and Outbound Tourism Market: Thailand experienced remarkable growth of both inbound and outbound tourism market during the review period. The total number of tourist arrivals increased 42.75% from around 10 million arrivals in 2001 to nearly 14.5 million arrivals in 2007. East Asia has the largest number of tourist arrivals, followed by Europe, ASEAN, and America correspondingly. Air transport is the largest mode of traveller arrivals with 41.61% growth over 2001-2007. However, tourists from ASEAN region use land & sea transport modes more than air transport. This could be explained by the highest share of tourist arrival from Malaysia which is located just next to Thailand's southern broader. For the outbound market, ASEAN region shares the highest proportion of travelling destination. East Asia, Europe and Oceania acquired the next highest ranks respectively. The South Asia region posted the highest growth as targeted destination of Thais at almost 200% over the period. (See Table 6-6 and Table 6-7)

Unit: tourist arrivals

Region	Transport mode	2001	2004	2007	2001-2007 % Growth
ASEAN	Air	987,609	1,302,803	1,573,134	59.29

Region	Transport mode	2001	2004	2007	2001-2007 % Growth
	Land & Sea	*1,253,953*	1,432,944	1,946,917	55.26
	Total	*2,241,562*	*2,735,747*	*3,520,051*	*57.04*
East Asia	Air	3,470,291	3,780,671	3,952,321	13.89
	Land & Sea	74,550	117,542	139,559	87.20
	Total	*3,544,841*	*3,898,213*	*4,091,880*	*15.43*
Europe	Air	2,316,265	2,610,369	3,667,257	58.33
	Land & Sea	192,301	240,864	238,014	23.77
	Total	*2,508,566*	*2,851,233*	*3,905,271*	*55.68*
The Americas	Air	622,828	754,066	849,629	36.41
	Land & Sea	60,167	69,891	70,737	17.57
	Total	*682,995*	*823,957*	*920,366*	*34.75*
South Asia	Air	334,292	472,304	680,622	103.60
	Land & Sea	16,582	20,389	29,189	76.03
	Total	*350,874*	*492,693*	*709,811*	*102.30*
Oceania	Air	366,359	447,274	715,976	95.43
	Land & Sea	54,192	37,642	48,096	-11.25
	Total	*420,551*	*484,916*	*764,072*	*81.68*
Middle East	Air	205,006	264,540	426,958	108.27
	Land & Sea	10,142	7,899	9,142	-9.86
	Total	*215,148*	*272,439*	*436,100*	*102.70*
Africa	Air	84,420	85,617	109,595	29.82
	Land & Sea	12,993	5,888	7,082	-45.49
	Total	*97,413*	*91,505*	*116,677*	*19.78*
Grand Total	**Air**	**8,456,412**	**9,803,081**	**11,975,492**	**41.61**
	Land & Sea	**1,676,097**	**1,934,332**	**2,488,736**	**48.48**
	Total	***10,132,509***	***11,737,413***	***14,464,228***	***42.75***

Table 6-6 Inbound tourist arrivals by region: 2001, 2004, and 2007
Source: Immigration Bureau, Royal Thai Police and Author's calculation

Unit: Thai tourist departures

Region	2001	2004	2007	2001-2007 % Growth
ASEAN	1,043,573	1,404,726	2,232,200	113.90
East Asia	628,485	860,342	*1,136,121*	80.77
Europe	161,187	*222,912*	*317,699*	97.10
The Americas	42,079	36,392	63,479	50.86
South Asia	27,882	50,548	83,072	197.94
Oceania	68,806	*71,402*	*90,460*	31.47
Middle East	35,030	60,174	87,164	148.83
Africa	3,574	2,445	7,518	110.35

Region	2001	2004	2007	2001-2007 % Growth
Total	2,010,616	*2,708,941*	*4,017,713*	99.82

Table 6-7 Outbound Thai tourist departures by region: 2001, 2004, and 2007
Source: Immigration Bureau, Royal Thai Police and Author's calculation

Upward Internal Tourism and Business Trips Growth: During the research review period from 2001 to 2008, the tourism industry of Thailand has been affected by five main crisis; US terrorist attack in 2001, SARS outbreak and Iraq war in 2003, Tsunami disaster in late 2004, 2 political turmoil during 2005-2006 and 2008 in which finally led to the temporary closure of many airports, including Bangkok's Suvarnabhumi International Airport. The most influencing crisis was the Tsunami disaster which led to the sharp, but short-term, drop in both Thai and foreign travellers' number in the beginning of 2005. The growing economy during 2005-2007seem to produces more Thai travellers at around 18.5% growth, whereas, foreign travellers experienced around the same growth rate at around 17.5% during 2005-2007. Apart from Bangkok, the Eastern and Southern regions are the most favourite destinations of foreign travellers, while Thai people make the majority of their trips to the North-eastern and Northern parts of the country (see Table 6-8). Considering the purpose of international tourist arrivals, holiday travel is the main group, followed by business travel. Apart from others' category, business trip shares the highest proportion of tourist arrival purpose, especially for the travellers from Europe, East Asia and the American regions (see Table 6-9).

Unit: Traveller-Trip

Region	Nationality	2005	2006	2007	2005-2007 % Growth
Bangkok	Foreigner	12,268,212	12,371,381	11,628,458	-5.21
	Thai	22,570,492	23,800,757	24,325,088	7.77
	Total	*34,838,704*	*36,172,138*	*35,953,546*	*3.20*
Central Region	Foreigner	2,238,765	2,276,057	2,598,135	16.05
	Thai	10,507,177	12,159,195	13,823,002	31.56
	Total	*12,745,942*	*14,435,252*	*16,421,137*	*28.83*
Eastern Region	Foreigner	4,586,902	5,203,435	5,812,691	26.72
	Thai	11,063,083	12,611,279	13,843,582	25.13
	Total	*15,649,985*	*17,814,714*	*19,656,273*	*25.60*

Region	Nationality	2005	2006	2007	2005-2007 % Growth
Western Region	Foreigner	1,163,232	1,359,824	1,318,951	13.39
	Thai	11,257,032	11,818,002	12,795,603	13.67
	Total	*12,420,264*	*13,177,826*	*14,114,554*	*13.64*
Northern Region	Foreigner	3,087,857	3,358,592	3,083,782	-0.13
	Thai	10,779,325	13,004,607	13,905,389	29.00
	Total	*13,867,182*	*16,363,199*	*16,989,171*	*22.51*
Northeastern Region	Foreigner	901,750	964,181	1,000,133	10.91
	Thai	18,618,417	20,207,432	21,321,836	14.52
	Total	*19,520,167*	*21,171,613*	*22,321,969*	*14.35*
Southern Region	Foreigner	4,069,361	7,109,840	7,821,348	92.20
	Thai	8,976,929	10,002,563	11,023,359	22.80
	Total	*13,046,290*	*17,112,403*	*18,844,707*	*44.44*
Grand Total	**Foreigner**	**28,316,079**	**32,643,310**	*33,263,498*	**17.47**
	Thai	**93,772,455**	**103,603,835**	**111,037,859**	**18.41**
	Total	***122,088,534***	***136,247,145***	***144,301,357***	***18.19***

Table 6-8 Domestic tourist visits by region: 2005, 2006, and 2007
Source: Tourism Authority of Thailand and Author's calculation

Unit: tourist arrivals

Region	Purpose of visit	2001	2004	2007	2001-2007 % Growth
ASEAN	Holiday	1,994,934	2,430,420	3,007,335	50.75
	Business	*334,768*	*386,696*	510,732	52.56
	Others	*55,826*	*109,143*	*237,487*	325.41
East Asia	Holiday	3,340,762	3,697,189	3,585,559	7.33
	Business	*301,235*	*341,592*	1,040,957	245.56
	Others	*36,592*	*68,984*	*347,354*	849.26
Europe	Holiday	2,124,668	2,384,195	3,246,015	52.78
	Business	*153,417*	*187,355*	350,075	128.19
	Others	*26,555*	*44,797*	*93,680*	252.78
The Americas	Holiday	504,349	571,750	621,234	23.18
	Business	*77,780*	*87,597*	130,013	67.15
	Others	*21,912*	*33,480*	*66,317*	202.65
South Asia	Holiday	264,152	371,558	495,182	87.46
	Business	*54,959*	*18,623*	139,136	153.16
	Others	*14,137*	*25,286*	*51,256*	262.57

Region	Purpose of visit	2001	2004	2007	2001-2007 % Growth
Oceania	Holiday	365,488	395,538	601,456	64.56
	Business	50,864	53,760	87,388	71.81
	Others	11,321	17,609	42,439	274.87
Middle East	Holiday	210,853	251,106	379,800	80.13
	Business	23,158	28,321	49,177	112.35
	Others	3,257	10,144	24,914	664.94
Africa	Holiday	71,273	63,476	79,652	11.76
	Business	18,244	16,835	20,277	11.14
	Others	1,446	2,400	5,012	246.61
Grand Total	Holiday	8,876,479	10,165,232	12,016,233	35.37
	Business	1,014,425	1,173,628	1,817,023	79.12
	Others	171,046	311,843	630,972	268.89

Table 6-9 Purpose of inbound tourist visit by region: 2001, 2004, and 2007
Source: Immigration Bureau, Royal Thai Police and Author's calculation

6.1.3 Air Transport Market Size and Growth

Expanding Market size with Cyclical Growth: from 2001 to 2008, the country's domestic market had experienced more than 50% growth of airline passenger number. The highest growth recorded year is 2004 which is explained by the emergence of three LCCs in the year. During 2002-2003, in 2005 and 2008, there were slightly decreased numbers of passenger due to SARS outbreak and Iraq War, the Tsunami disaster, internal political turmoil and a fuel price crisis. Considering traffic by region, the East experienced the highest growth at more than 300% during the review period. This could be caused by the opening of new airport in Trat province which is surrounded by tourist attractions in many islands and beaches. Whereas, the Southern region gained almost 80% growth as there are many famous tourist destinations in the region and high income of the region's population. (See Table 6-10)

For international traffic, the number of passengers have increased by 43% from 16.1 million passengers in 2001 to 24.7 million passengers in 2008. The growth is cyclical over the review period. There were significant decreases passenger number in

2003 and 2008 and small decrease in 2005. The main causes would be the SARS outbreak and the Iraq war. In 2005, the slight fall was caused by the Tsunami disaster in late December 2004, in the Andaman sea coast, which killed many thousands of both Thais and foreign tourists. The closure of many international airports, due to the public protest, and fuel price crisis could be counted as key drivers making 5% decrease of passenger number in 2008. (See Table 6-11)

Unit: '000 passengers

Region	2001	2002	2003	2004	2005	2006	2007	2008	% Total growth
Bangkok	7,392	7,295	7,356	10,272	10,277	11,450	12,674	11,962	61.82
Eastern Region	32	35	51	99	143	154	136	136	317.51
Northeastern Region	1,199	1,096	1,117	1,609	1,635	1,545	1,563	1,514	26.32
Northern Region	3,345	2,915	2,721	3,694	3,846	3,947	4,031	3,738	11.75
Southern Region	4,142	4,195	4,202	5,716	5,338	6,553	7,803	7,420	79.11
Total	**16,111**	**15,535**	**15,447**	**21,390**	**21,240**	**23,649**	**26,207**	**24,770**	**53.74**
% Growth	*n.a.*	*-3.58*	*-0.56*	*38.47*	*-0.70*	*11.34*	*10.81*	*-5.48*	

Table 6-10 Total number and % growth of domestic passenger at all operating airports by region: 2001-2008

Source: Department of Civil Aviation and Author's calculation

Unit: '000 passengers

Region	2001	2002	2003	2004	2005	2006	2007	2008	% Total growth
Bangkok	21,049	22,522	20,820	25,339	26,472	29,488	31,406	29,744	41.31
Eastern Region	*6.25*	*3.18*	*11.06*	*25.17*	*6.24*	*20.52*	*49.59*	*0.31*	*-95.00*
Northeastern Region	*1.12*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*25.36*	*0.05*	*-95.63*
Northern Region	95	110	132	156	212	305	329	294	210.55
Southern Region	1,116	1,112	1,074	1,660	205	1,666	1,950	1,889	69.19
Total	**22,267**	**23,747**	**22,037**	**27,180**	**26,895**	**31,480**	**33,759**	**31,926**	**43.38**
% Growth	*n.a.*	*6.65*	*-7.20*	*23.34*	*-1.05*	*17.05*	*7.24*	*-5.43*	

Table 6-11 Total number and % growth of international passenger at all operating airports by region: 2001-2008

Source: Department of Civil Aviation and Author's calculation

6.2 Airline Industry Characteristics and Structure

The airline industry characteristics and structure in Thailand are illustrated in four elements; deregulation and liberalisation regime, route traffic and operations, players and market share, and industry concentration. The explored knowledge could benefit the later stage of analysis such as competition evolution and airline strategic moves, which could lead to more understanding toward the market phenomena and underlying changes.

6.2.1 Deregulation and Liberalisation Scheme

The airline industry in Thailand has witnessed remarkable changes since 1994, when the government allowed the establishment of a second, privately owned, national carrier and resulted in the launch of the first privately owned flag carrier, Angle Airlines, in September 1999. From that time till the present, the government has implemented a number of deregulation packages and liberalised policies which lead to significant changes in the airline industry structure and characteristics. The results of the study are discussed in two main themes, pre-liberalisation era (before 1994) and post-liberalisation era (after 1994).

Pre-Liberalisation Era: In 1973, regarding the Announcement of the Revolutionary Party No.58, air transport services were categorised as a state-provided public service. In addition, the cabinet approval on 28th November 1979 announced the commercial aviation policy that only a state-owned airline is designated as its airline. This made only Thai Airways qualified for such category. Thai Airways was demanded by the government to operate on many pubic service obligation (PSO) routes. The government classified air transport as one of high sensitive activities to security matters. Since that time, Thai Airways, the national, state-owned carrier, had been protected by the state as it is deemed to concern public interest and national security. These policies led to a very closed door for the new entrants. In 1983, the first forward move to more liberal scheme was initiated. An Announcement of Transport Ministry on 31st July 1983 indicated that the government would allow the private sector to participate in air

transport services providing feeder services. However, there were a number of restrictions and protections. All operating routes of flag carrier were protected and only new route and/or flag carrier's suspended routes were to be granted to the private carriers. Sahakol Air became Thailand's first privately owned domestic airline when it launched services in 1986 and re-branded as Bangkok Airways in 1990. The turning point of the state's commercial aviation policy was in 1994, when the government moved another forward step by granting the second, private-owned, flag carrier. Angle Airlines, started its operation in mid of 1999, was the result of this policy. The emerging deregulation and liberalisation in the country's neighbours as well as the ASEAN regional and global community, especially for the creation of European single airline market in the mid of 1990s could be claimed as underlying driver influencing such changed policy.

Post-Liberalisation Era: Since 1994, a gradual liberalisation policy has been implemented in the market. There are many emerging changes which could be summarised in four dimensions as follows

- Ownership and Control: Thailand has been one of the first movers in ASEAN to deregulate ownership and control regulation. In 1998, according to Air Navigation Act (No.10)- B.E. 2542, the state allowed foreign investors to take up to 49% share of airlines registered in Thailand. The government declared the reasons for such changes that the country was seeking foreign investment due to Asian financial crisis and the policy could propel privatisation.

- Market Access and Traffic Allotment: Regarding the Civil Aviation Broad (CAB) Approval on 25th September 1999 and the Transport Ministerial Announcement on 14th December 2000, the government announced its first official open sky policy. It continued further forward move toward the airline liberalisation by cancelling the flag carrier's protection regulations and allowing other operators to serve any domestic routes including the operating routes of flag carrier. However, there were two regulation adjustments in 2004 and 2006 due to target airlines solely operating trunk routes and dropping small ones. The latest regulation

toward traffic allotment classified three types of service route; major routes with more than 300,000 passengers per year, minor routes with 50,000-300,000 passengers per year, and small routes with less than 50,000 passengers per year. The airline proposing to serve major and/or minor routes had to operate , at least, one of the small routes. For the international routes, the Department of Civil Aviation (DCA) issued the announcement on 17th August 2005 to allow any Thai airline operators to serve any international routes.

- Pricing Policy: The government has been continuously liberalising its pricing regulation. The first move was in 2000 when the CAB approved a new pricing formula on 26th September with some restrictions on the routes less than 200 km and setting 3.82-6.82 Baht per km for pricing limitation on the route more than 200 km. Three years later, in 9th December 2003, CAB moved out the lower pricing limit but still kept the upper pricing limit at 6.82 Baht per km on the route more than 200 km. Finally, on 6th September 2006, the CAB raised up the upper pricing limit on both routes for more flexibility of airlines' pricing strategy.

- Air Service Agreement: Generally, there are three types of Air Service Agreement (ASA), Bermuda Type Agreements, Capacity Predetermination, and Open Skies. As a result of gradual liberalisation policy, most of the new bilateral agreements signed after 2000 are Open Skies ones. Moreover, DCA has been working on negotiation to add capacity, frequency, route, and traffic rights on the already signed ASAs. In addition, the government has granted the fifth freedom rights to all foreign airlines to serve all routes, including the flag carrier's operating routes which was highly protected by the state in the past.

6.2.2 Airline Route and Operational Characteristics

At the present, there are eight airlines operating a scheduled flight and one airline has been grounded regarding safety concerns. They are Thai AirAsia (AIQ),

Bangkok Airways (BKP), Nok Air (NOK), Orient Thai Airlines (OEA), One-To-Go Airlines (OTG), PB Air (PBA), SGA Airlines (SGN), Skystar Airways (SKT), Thai Airways (THA) and Phuket Airlines (VAP). Some of them are operating both domestic and international flights, whereas some are operating solely either domestic or international services. According to the liberalisation regime in the country, not only the commercial airline activity increased, general and business aviation have been expanding as well. Figure 6-2 shows the evidence of such growth as remarkably increasing number of registered aircraft, both commercial and private ones, over the review period. Especially for commercial aircraft, the number has increased at almost 100% from 120 aircrafts in 2001 to 239 aircrafts in 2009.
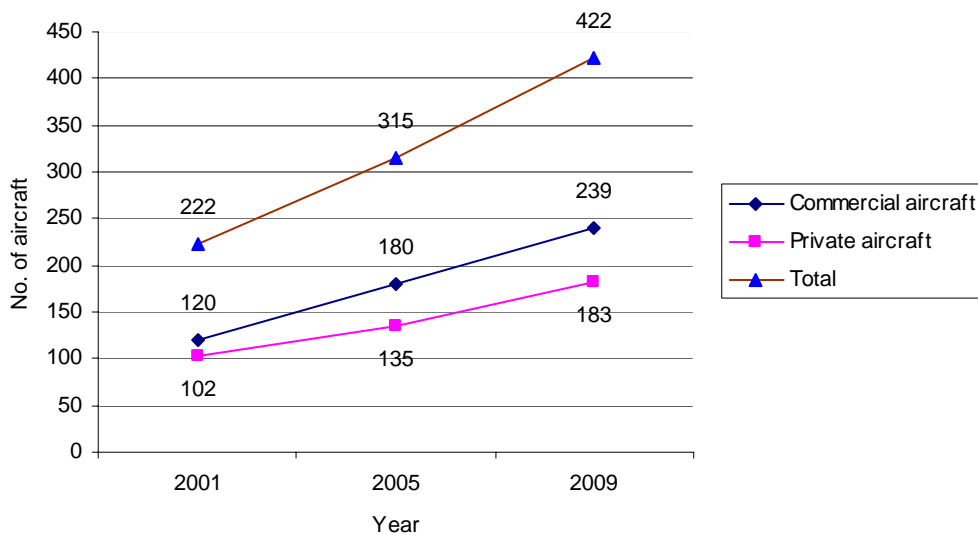
Figure 6-2 Number of registered aircraft by purpose of usage: 2001, 2005 and 2009
Source: Department of Civil Aviation and Author's calculation

Considering fleet characteristic of those eight operating airlines and one ceased operation airline, Phuket Airlines, THA acquires the largest and most heterogeneous fleet with 91 aircrafts and 7 aircraft types. NOK and PBA have the smallest number of aircraft and most homogeneous fleet with 2 aircrafts and 1 aircraft type respectively. THA, again, has the largest seat capacity at around 28,000 seats, while, SGN has the lowest seat capacity at around 42 seats. VAP, which has been grounded, has the oldest average fleet age at more than 30 years old. In contrast, BKP obtains the youngest average fleet age at only 4 years old. (See Table 6-12)

Airline	No. of aircraft	No. of aircraft type	Seat Capacity (seat)				Fleet Age (year)			
			Avg	Max	Min	Total	Avg	Max	Min	SD
AIQ	17	2	165	180	148	2,804	12	25	1	11.61
BKP	21	3	108	162	70	2,269	4	9	0	2.99
NOK	2	1	168	168	168	336	18	18	17	0.71
OEA	14	3	301	563	134	4,220	24	30	20	2.62
PBA	2	1	50	50	50	100	7	7	7	0.00
SGN	3	1	14	14	14	42	6	12	2	5.51
SKT	3	1	168	168	168	504	27	27	27	0.00
THA	91	7	308	423	70	28,004	8	13	2	4.52
VAP	15	3	284	466	64	4,259	32	40	24	5.82
Average	*18.7*	*2.4*	*174.0*	*64.0*	*98.4*	*4,726.4*	*15.4*	*20.1*	*11.1*	*3.8*

Table 6-12 Airlines' fleet characteristics in Thailand: 2009
Source: Department of Civil Aviation and Author's calculation

Both domestic and international routes are analysed. The data were acquired from ATI database. From total eight operating airlines, there are three airlines-AIQ, BKP and THA-serving both domestic and international routes, four airlines-NOK, OTG, PBA, SGN-serving only domestic routes, and two airlines-OEA and SKT-operating solely on international routes. Regarding domestic route, there are 40 city-pairs served. AIQ has the second largest available seat capacity and operates from Bangkok Suvarnabhumi Airport to ten destinations in three regions. BKP acquires second highest flight frequency and third largest seat capacity and serves ten destinations in Bangkok and Eastern, Northern, and Southern regions with seven hub-spoke and three point-to-point routes. NOK serves six city-pairs linking Bangkok-Don Muang Airport with six destinations in North, Northeast, and Southern regions. OTG operates the flights fewest and lowest capacity among narrow body operators, serving six routes in the north and south of the country. PBA operates regional airliners linking Bangkok Suvarnabhumi airports with three and four destinations in the North and the Northeast respectively. SGN serves three point-to-point routes in the north with its two 14-seat Cessna Caravan aircrafts. Lastly, THA, the national carrier, operates on 13 routes in all regions except the East with the highest flight frequency and capacity and

two point-to-point routes linking within the North and between the North and South. (See Table 6-13)

Airline	Schedule	Total	Region Pairs*							
			B-E	B-N	B-NE	B-S	E-S	N-N	N-S	S-S
AIQ	No. of flight	20		4	4	12				
	Flight/week	447		126	42	279				
	Available seat/week	74,188		20,888	6,664	46,636				
BKP	No. of flight	20	2	4		4	4		2	4
	Flight/week	490	28	63		315	29		21	34
	Available seat/week	55,710	1,960	7,036		39,280	2,030		3,024	2,380
NOK	No. of flight	12		2	2	8				
	Flight/week	210		42	42	126				
	Available seat/week	29,400		5,880	5,880	17,640				
OTG	No. of flight	12		6		8				
	Flight/week	126		60		80				
	Available seat/week	17,514		8,340		9,174				
PBA	No. of flight	14		6	8					
	Flight/week	78		30	48					
	Available seat/week	5,226		2,010	3,216					
SGN	No. of flight	6						6		
	Flight/week	62						62		
	Available seat/week	682						682		
THA	No. of flight	26		6	6	10		2	2	
	Flight/week	652		189	126	295		28	14	
	Available seat/week	154,035		49,783	23,766	75,096		1,848	3,542	
Total	No. of flight	110	2	28	20	40	4	8	4	4
	Flight/week	2,065	28	510	258	1,081	29	90	35	34
	Available seat/week	336,755	1,960	93,937	39,526	187,826	2,030	2,530	6,566	2,380
Total no. of city pair served		40	1	10	8	12	2	3	2	2

*B=Bangkok, E=East, N=North, NE=Northeast, S=South

Table 6-13 Domestic route characteristics of seven operating airlines in Thailand: 2009

Source: ATI database (2009) and Author's calculation

Regarding international routes, there are five airlines serving 69 routes in seven regions around the world. AIQ operates on 12 routes linking Bangkok with eight

destinations in ASEAN countries and four destinations in East Asia. BKP serves 14 routes from Bangkok, Samui and Phuket to eight destinations in ASEAN, five in East Asia and Maldives in the South Asia. OEA serves only one city-pair, BKK-HKG. SKT, a new entrant (from 2007) serves two destinations in South Korea from both Bangkok and Phuket. THA operates on 63 routes serving all regions. Interestingly, only THA and BKP exploit fifth-freedom and eight-freedom traffic rights operating two beyond Bangkok routes linking Pakistan with Oman and Phnom Phen with Seam Reap in Cambodia correspondingly. (See Table 6-14)

Airline	Schedule	Total	Destinations						
			AM	AS	EA	EU	ME	OC	SA
AIQ	No. of flight	24		16	8				
	Flight/week	323		225	98				
	Available seat/week	54,108		36,916	17,192				
BKP	No. of flight	28		16	10				2
	Flight/week	238		192	42				4
	Available seat/week	29,848		23,044	6,228				576
OEA	No. of flight	2			2				
	Flight/week	14			14				
	Available seat/week	5,614			5,614				
SKT	No. of flight	6			6				
	Flight/week	30			30				
	Available seat/week	5,190			5,190				
THA	No. of flight	126	2	22	34	26	6	12	24
	Flight/week	1,123	10	280	357	182	36	108	150
	Available seat/week	341,763	2,150	73,250	111,911	65,656	9,830	36,328	42,638
Total	No. of flight	186	2	54	60	26	6	12	26
	Flight/week	1,728	10	697	541	182	36	108	154
	Available seat/week	436,523	2,150	133,210	146,135	65,656	9,830	36,328	43,214
Total no. of city-pairs served		69	1	17	25	13	3	6	14

*AM=America, AS=ASEAN, EA=East Asia, EU=Europe, ME=Middle East, OC=Oceania, SA=South Asia
Table 6-14 International route characteristics of five operating Thai airlines in Thailand: 2009
Source: ATI database (2009) and Author's calculation

6.2.3 Airline Players and Market share

During the review period, from 2001 to 2008, all recorded passengers carried statistics from all operating airlines in Thailand are analysed. The number of players and their market share could represent the strategic choices and relative market performance of each Thai airline as well as underlying changes in the market. For both domestic and international markets, there are totally 11 airlines operated over the period. There are six airlines operated from 2001 to 2003, while, from 2004 to 2008, eight airlines operated except in 2005 that the number reduced to seven. There are three airlines suspended their operation before 2008, ADW did in 2004, while, NGE and VAP ceased their services in 2001 and 2006 correspondingly. In addition, there are five new entrants. AIQ and NOK launched operations in 2004. OTG started its first flights in 2006 and SGN and SKT were launched in 2007. The rest three airlines, BKP, PBA, THA, has operated along the whole period.

Regarding market share analysis, for domestic market, THA has experienced the most significant reduction in its market share, reduced to almost 50 % from 89.97 % in 2001 to 48.25% in 2008. ADW, NGE, and VAP, which suspended their operations during the review period, separately accounted for less than 2% average market share. OTG and its parent airline, OEA, hold around 8% and 7% average market share respectively. BKP's market share has been slightly fluctuating and improved over the period and is at 12.64 % averagely. In contrast, PBA has faced vague oscillation but decrease of its market share over the time with 1.76% average market share. NOK performed the best result of its market share at 16.32 % in 2007 while has 13.2% as an average one. In 2007, SGA witnessed good start with slight growth in 2008. Lastly, after entering to the market, AIQ has been performing a good record of continuous growth, started at almost 8% market share in its first year of operation and nearly reached 20 % in five years later. (See Table 6-15)

Airline	Results	2001	2002	2003	2004	2005	2006	2007	2008	Avg.
ADW	Total pax ('000s)	11	**262**	228	7					
	Market share(%)	*0.07*	***1.69***	*1.48*	*0.03*					*1.54*
AIQ	Total pax ('000s)				1,706	2,193	3,536	4,277	**4,763**	

Airline	Results	2001	2002	2003	2004	2005	2006	2007	2008	Avg.
	Market share(%)				*7.98*	*10.33*	*14.95*	*16.32*	***19.23***	*15.21*
BKP	Total pax ('000s)	1,533	1,670	1,915	2,641	3,101	**3,295**	3,217	3,135	
	Market share(%)	*9.51*	*10.75*	*12.40*	*12.35*	***14.60***	*13.93*	*12.27*	*12.66*	*12.64*
NGE	Total pax ('000s)	**6**								
	Market share(%)	***0.04***								*0.04*
NOK	Total pax ('000s)				801	2,245	2,909	**4,357**	3,371	
	Market share(%)				*3.74*	*10.57*	*12.30*	***16.62***	*13.61*	*13.21*
OEA	Total pax ('000s)		4	78	1,646	**1,709**	227	77	20	
	Market share(%)		*0.03*	*0.50*	*7.70*	***8.05***	*0.96*	*0.30*	*0.08*	*7.10*
OTG	Total pax ('000s)						1,969	**2,460**	1,209	
	Market share(%)						*8.33*	***9.39***	*4.88*	*8.05*
PBA	Total pax ('000s)	62	278	360	438	**439**	405	303	282	
	Market share(%)	*0.39*	*1.79*	***2.33***	*2.05*	*2.07*	*1.71*	*1.15*	*1.14*	*1.76*
SGN	Total pax ('000s)							35	**39**	
	Market share(%)							*0.13*	***0.16***	*0.15*
THA	Total pax ('000s)	**14,496**	13,238	12,638	13,633	11,344	11,297	11,481	11,951	
	Market share(%)	***89.97***	*85.22*	*81.82*	*63.74*	*53.41*	*47.77*	*43.81*	*48.25*	*65.55*
VAP	Total pax ('000s)	4	81	227	**518**	208	11			
	Market share(%)	*0.02*	*0.52*	*1.47*	*2.42*	*0.98*	*0.04*			*1.75*
Total pax. ('000)		16,200	15,372	15,319	21,483	21,340	23,749	26,307	24,870	
No. of airline player		6	6	6	8	7	8	8	8	

Table 6-15 Summary of total domestic passenger carried number and market share of each operating airline and number of airline player: 2001-2008
Source: Department of Civil Aviation (2009) and Author's calculation

For the international market, AIQ still achieves the best market performance with continuous growth and 7.88% average market share over the review period. BKP performs better growth pattern of its domestic segment with 4.37 % average market share and continuous market share growth from 3.06 % in 2001 to 5.25% in 2008. NGE and VAP, which ceased their operations before the end of the period, had 2.51% and 0.85% average market shares respectively. NOK launched its first international service three years after its first domestic flight and experienced slight decay with 0.27 average market share. OEA started its international operation in 2002 with 2.30 % market share

rising to 5.18% in 2004 before falling to 2.12% in 2008. PBA also experienced a similar growth pattern as OEA with less average market share at around 0.13%. SKT, the new player entered in 2007 and operated on only international routes between Thailand's Bangkok and Phuket and South Korea's Pusan and Inchon, shows radical growth during its first two-year operation with 1.12 % average market share. Finally, THA, the leading player in both domestic and international segments, has experienced continuous internal passenger's growth but market share declined from 94.42% in 2001 to 80.54% in 2008. (See Table 6-16)

Airline	Results	2001	2002	2003	2004	2005	2006	2007	2008	Avg.
AIQ	Total pax ('000s)				276	633	1,073	**1,262**	1,600	
	Market share(%)				2.11	4.91	7.17	**7.75**	10.62	7.88
BKP	Total pax ('000s)	317	385	309	451	602	718	**811**	790	
	Market share(%)	3.06	3.37	2.91	3.45	4.66	4.80	**4.98**	5.25	4.37
NGE	Total pax ('000s)	**262**	2							
	Market share(%)	**2.53**	0.02							2.51
NOK	Total pax ('000s)							**44**	39	
	Market share(%)							**0.27**	0.26	0.27
OEA	Total pax ('000s)		263	408	**677**	454	620	658	319	
	Market share(%)		2.30	3.84	**5.18**	3.51	4.14	4.04	2.12	3.88
PBA	Total pax ('000s)		1	9	11	**29**	11	7	8	
	Market share(%)		0.01	0.09	0.08	**0.23**	0.08	0.04	0.05	0.13
SKT	Total pax ('000s)							**7**	176	
	Market share(%)							**0.04**	1.17	1.12
THA	Total pax ('000s)	9,801	10,784	9,902	11,504	11,113	12,509	**13,492**	12,134	
	Market share(%)	**94.42**	94.29	93.11	88.11	86.09	83.68	82.87	80.54	87.43
VAP	Total pax ('000s)		1	6	**137**	77	2			
	Market share(%)		0.01	0.06	**1.05**	0.60	0.01			0.85
Total pax. of Thai operators ('000)		10,381	11,437	10,635	13,056	12,909	14,949	16,281	15,065	
Total pax of all operators ('000)		22,267	23,747	22,037	27,180	26,895	31,480	33,759	31,926	
% share of Thai operators' pax		46.62	48.16	48.26	48.03	48.00	47.49	48.23	47.19	
No. of Thai airline player		3	6	5	6	6	7	7	7	

Airline	Results	2001	2002	2003	2004	2005	2006	2007	2008	Avg.
No. of all airline player		77	84	85	86	84	104	92	94	

Table 6-16 Number of total international passenger carried and market share of each Thai operator and number of airline player: 2001-2008
Source: Department of Civil Aviation (2009) and Author's calculation

6.2.4 Industry Concentration

This section illustrates changes in industry/market concentration. The key factor being used to identify the level of concentration is Herfindahl-Hirschman Index (HHI). The HHI is calculated by summing the squares of the individual market shares of all the participants (DOJ-US, 1997). The higher the HHI, the higher industry concentration is. Therefore, the number of operating firm and its market share significantly affect the level of industry concentration. The results could reflect the distribution of the market share and provide firms' relative importance in competitive interactions. The analysis of industry concentration is based on historical evidence of firms' market shares. All related traffic data of all operating airlines to/from and within Thailand are collected. The results are presents as follows.

For the domestic market, the industry has experienced dramatic decline of industry concentration level at more than 60% from 8,186 in 2001 to 2,708 in 2007. These is explained by the increasing number of new airline operators and their growing market shares as direct consequence of the government's liberalisation policy. Considering five categories of different number of operators in each route, the route with one operator, monopoly market, has dominated the market over the review period. The oligopoly market with two operators had shared the second largest category during 2001-2004, from 2005 it has became the third rank for another three years before reinstated to the second rank again in 2008. The route market with more than 3-4 serving airlines had held the reversed pattern of the oligopoly one. The market with more than five airlines started to expand in 2002 and reached the maximum number of routes at eight in 2006 and 2007, then, only 5-6 operators route existed in 2008. Interestingly, during 2003-2005, the number of city-pairs and route served had been

plunged dramatically. This could be the result from small routes were dropped by THA and new entrant focused on only the major and minor routes. (See Table 6-17)

Results	2001	2002	2003	2004	2005	2006	2007	2008
No. of city-pairs served	54	52	47	41	36	58	55	51
HHI	8,186	7,384	6,858	4,362	3,354	2,940	2,708	3,069
No. of all operating route	108	104	94	82	72	116	110	102
No. of operator	6	6	6	8	7	8	8	8
No. of route with 1 operator	94	59	70	54	44	74	68	55
No. of route with 2 operators	12	34	16	16	12	14	14	22
No. of route with 3-4 operators	2	6	8	8	12	20	20	21
No. of route with 5-6 operators	0	5	0	4	4	4	6	4
No. of route with 7 operators	0	0	0	0	0	4	2	0

Table 6-17 Number of domestic routes served, their number of operator and HHI: 2001 - 2008
Source: Department of Civil Aviation (2009) and Author's calculation

Regarding the international market, the HHI- all operators is very low when comparing with the domestic one. Its value has been gradually declined at almost 25% from 2,061 in 2001 to 1,560 in 2008 as nearly the same rate of the HHI of Thai operators' growth which has dropped from 8,930 in 2001 to 6,633 in 2008. The number of city-pairs served of all airlines and Thai operators have continuously and significantly increased, especially in 2006 when new Bangkok Suvarnabhumi Airport opened and resulted in almost double growth of city-paired served number. In addition, Thai operators have progressively penetrated in the international route market, from 53.85% of city-pairs served by all operators in 2001 to more than 60% in 2008. For the international market, five categories of city-pairs market are segmented by number of operating airline; begin with city-paired with one operator, followed by two, 3-5, 6-10 and more than ten operators. City-pairs market with one operator is the majority one in term of the number of city-pairs. The other four categories' sizes are reversely ordered by their number of operator as the more operators, the smaller size they are. The maximum number of operators is 22 on a single city-paired route between Bangkok-Hong Kong (2007). Lastly, the portions of number of Thai to all operators are ranged from 3.9% in 2001 to 5.9% in 2008. This could be interpreted that there is growing relative presence of Thai operators in the international market. (See Table 6-18)

Results	2001	2002	2003	2004	2005	2006	2007	2008
HHI-all operators	2,061	2,180	2,134	1,898	1,817	1,691	1,701	1,560
HHI-Thai operators	8,930	8,908	8,692	7,808	7,471	7,094	6,969	6,633
No. of city-pairs served by all	143	155	185	189	144	326	248	193
No. of city-pairs served by Thai operators	77	85	107	107	100	226	145	118
% of city-pairs served by Thai operators/all operators	*53.85*	*54.84*	*57.84*	*56.61*	*69.44*	*69.33*	*58.47*	*61.14*
No. of city-pairs served by all with 1 operator	70	71	92	100	61	137	117	89
No. of city-pairs served by all with 2 operators	26	40	42	34	34	74	46	52
No. of city-pairs served by all with 3-5 operators	33	36	44	45	41	83	55	31
No. of city-pairs served by all with 6-10 operators	12	6	4	8	5	24	25	17
No. of city-pairs served by all with more than 10 operators	2	2	3	2	3	8	5	4
No. of all operator	77	84	85	86	84	104	92	94
No. of Thai operators	3	6	5	6	6	7	7	7

Table 6-18 Number of international city-pairs served, their number of operator and HHI: 2001 - 2008
Source: Department of Civil Aviation (2009) and Author's calculation

6.3 Airline Competition

The analysis of airline competition in Thailand is organised in two separate parts. The first part discuses about competition at domestic route level, whereas, the second one illustrates competition at international route level. There are totally 759 routes of 149 airlines being analysed during the period from 2001 to 2008. All 213 routes of 11 operating airlines in domestic market are categorised to 10 segments by the region of their origins and destinations. For the international market, 546 routes of all 146 international airline operators are classified into 8 segments by the region of all international destinations.

6.3.1 Competition at Route level: Domestic Market

Table 6-19 shows the results from the analysis of competition at domestic route level. Firstly, Bangkok-Eastern region network was developed in 2003 by BKP. There are two routes, operating by one airline only, which has acquired a rapid growth of

passenger number over the review period. Bangkok-Northern region network, the second biggest segment in term of passenger number, has experienced the increase of both passenger number and competition level. Its falling HHI at almost 50% over the review period reflects the higher level of competition from both new entrants and incumbents. Likewise, Bangkok-Southern region and Bangkok-Northeastern region segments, the biggest and the second biggest segment in term of passenger number respectively, have the same pattern of growth. Bangkok-Northeastern region network has the lowest level of competition among those three biggest segments as its HHI is 7,614. Interestingly, these three segments had shares the same pattern of rising HHI value since 2007. Eastern-Southern region network had been monopolised by BKP with a radical growth of passenger number since 2001. Within Northeastern region network, which is the smallest passenger volume segment and monopolised market, has the most uncertainty of services. There were three airlines, ADW, NOK, and THA, trying to develop this market through triangular routes. Most of the traffics are transit passengers. The results could conclude unsuccessful efforts.

The route network within Northern region has experienced unsteadily and remarkably declining growth. In 2001, its passenger volume was the forth largest segment. Its number had been falling continuously from more than 400,000 in 2001 to only around 95,000 passengers in 2008. The competition level is also varying as its HHI is ranged from 6,451 to 10,000. This is a direct consequence of triangular routes suspended by THA. Northern-Northeastern region segment is one of small networks. Since the first service launched in 2004 by VAP, the market had no competition, except in 2005, the year NOK came to compete before monopolising all services from 2006. The route network linking the North and the South is another new routes network that has been developed and hit almost double growth during the review period. There had been no competition on the network, except in 2003 when BKP launched Khoa Samui-Hua Hin services. However, there is no direct competition within the network. Lastly, the route network within the South are mostly monopolised by one operator. Each operator develops and operates on their own routes, except in 2004, when THA reduced its capacity and VAP took over the void demand, and again in 2008, when NOK came in to share the traffic.

Segment*	Results	2001	2002	2003	2004	2005	2006	2007	2008
B-E	No. of operator	0	0	1	1	1	1	1	1
	No. of route	0	0	2	2	2	4	2	2
	Total pax.	0	0	15	45	70	81	73	70
	Avg. HHI	0	0	10,000	10,000	10,000	10,000	10,000	10,000
B-N	No. of operator	3	4	5	8	7	7	8	7
	No. of route	18	20	18	18	16	28	21	20
	Total pax	2,475	2,382	2,357	3,312	3,529	3,625	3,688	3,417
	Avg HHI	9,816	9,668	9,466	5,863	4,499	4,237	4,519	5,073
B-NE	No. of operator	2	3	5	7	6	5	4	5
	No. of route	17	21	20	16	14	32	24	19
	Total pax	1,199	1,096	1,117	1,599	1,625	1,526	1,533	1,504
	Avg HHI	9,956	9,525	9,943	6,702	6,449	6,160	6,720	7,614
B-S	No. of operator	6	6	6	7	7	8	7	7
	No. of route	21	22	22	16	18	34	31	29
	Total pax	3,670	3,817	3,866	5,317	5,053	6,219	7,378	6,967
	Avg HHI	9,921	9,699	8,860	6,138	5,843	5,267	5,407	5,831
E-S	No. of operator	1	1	1	1	1	1	1	1
	No. of route	2	4	4	4	4	4	4	4
	Total pax	32	35	35	55	73	74	63	67
	Avg HHI	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
NE-NE	No. of operator	0	0	1	0	0	1	1	0
	No. of route	0	0	1	0	0	2	2	0
	Total pax	0	0	0.1	0	0	0.5	0.3	0
	Avg HHI	0	0	10,000	0	0	10,000	10,000	0
N-N	No. of operator	2	4	5	5	3	3	4	3
	No. of route	24	24	16	14	6	4	10	7
	Total pax	401	232	156	152	130	109	106	95
	Avg HHI	10,000	8,927	9,574	10,000	10,000	6,451	7,173	9,263
N-NE	No. of operator	0	0	0	1	2	1	1	1
	No. of route	0	0	0	2	2	2	2	2
	Total pax	0	0	0	10	10	18	29	13
	Avg HHI	0	0	0	10,000	5,526	10,000	10,000	10,000
N-S	No. of operator	2	2	2	1	2	2	2	2
	No. of route	3	3	3	2	4	4	4	4
	Total pax	68	71	56	67	48	86	106	117
	Avg HHI	10,000	10,000	9,962	10,000	10,000	10,000	10,000	10,000
S-S	No. of operator	4	3	2	3	3	1	2	4
	No. of route	18	9	8	12	7	2	6	8
	Total pax	160	135	121	139	82	87	126	128
	Avg HHI	10,000	10,000	10,000	8,556	10,000	10,000	10,000	9,981
Total	No. of operator	6	6	6	8	7	8	8	8
	No. of route	108	109	100	86	78	120	117	110
	Total pax	8,006	7,767	7,724	10,695	10,620	11,825	13,103	12,378

Segment*	Results	2001	2002	2003	2004	2005	2006	2007	2008
	Avg HHI	8,186	7,384	6,858	4,362	3,354	2,940	2,708	3,069

*B=Bangkok, E=East, N=North, NE=Northeast, S=South

Table 6-19 Number of domestic operator, route, total passenger and average HHI by segment: 2001-2008

Source: Department of Civil Aviation (2009) and Author's calculation

6.3.2 Competition at Route Level: International Market

In international market, 10 regions are segmented as destinations/origins. The first investigated region is the Africa. It is the smallest average passenger volume segment. The competition level of the routes had been mostly very low or no direct competition as its HHI is between 9,962 -10,000. The America region, the second smallest average passenger volume market, had experienced low to no direct competition (in 2005) level over the review period. Its lowest HHI was in 2003, when THA, UAL and NWA was competing each other on two routes. ASEAN market, which is the second largest segment in term of average passenger number, had experienced the highest increased of competition level at more then 20% as HHI drooped from 5,686 in 2001 to 4,436 in 2008. In contrast, the largest passenger volume market, East Asian market, had witnessed the slightly decreased and oscillated level of competition. Its HHI was raised from 3,951 in 2001 to 4,422 in 2008. Europe, Middle East and Oceania segments had shared the same pattern of competition changes as East Asia, but the Middle East acquired the highest growth of passenger volume at more than 200%. Lastly, the South Asia had the slightly dropped HHI at around 2% from 5,803 in 2001 to 5,681 in 2008. (See Table 6-20)

Unit: Pax-'000s

Segment*	Results	2001	2002	2003	2004	2005	2006	2007	2008
AF	No. of operator	4	3	4	4	4	11	10	7
	No. of city-paired	3	4	5	5	4	13	9	8
	Total pax.	109	122	91	87	122	158	242	282
	Avg. HHI	9,962	10,000	10,000	9,985	9,984	9,705	9,962	10,000
AM	No. of operator	3	3	4	3	3	6	11	8
	No. of city-paired	4	4	9	6	6	15	8	8
	Total pax	173	151	146	128	186	185	257	186
	Avg HHI	8,080	7,878	7,594	8,734	10,000	9,380	9,496	9,440

Segment*	Results	2001	2002	2003	2004	2005	2006	2007	2008
AS	No. of operator	40	40	39	38	43	49	51	46
	No. of city-paired	36	32	35	34	30	49	48	40
	Total pax	5,964	6,464	5,939	7,645	7,640	8,860	9,297	8,992
	Avg HHI	5,686	5,601	5,590	5,026	4,583	4,208	4,718	4,436
EA	No. of operator	39	39	46	45	41	56	48	44
	No. of city-paired	37	41	49	55	37	87	66	47
	Total pax	9,156	9,761	8,732	10,823	10,285	12,057	12,236	11,142
	Avg HHI	3,951	4,275	4,557	4,335	4,004	4,186	4,502	4,422
EU	No. of operator	27	28	32	30	31	38	45	42
	No. of city-paired	27	33	44	42	30	79	66	45
	Total pax	3,934	4,100	3,877	4,511	4,388	5,031	5,489	5,266
	Avg HHI	5,322	5,966	6,192	6,324	6,002	6,374	6,858	6,686
ME	No. of operator	16	15	14	15	15	27	30	20
	No. of city-paired	15	17	13	12	11	28	18	13
	Total pax	743	867	917	1,276	1,435	1,905	2,182	2,256
	Avg HHI	7,733	7,562	7,587	7,191	7,614	7,837	8,169	8,277
OC	No. of operator	4	4	4	6	5	10	6	7
	No. of city-paired	6	6	9	9	6	14	7	8
	Total pax	1,005	980	929	1,012	971	1,174	1,591	1,536
	Avg HHI	5,613	6,148	7,509	7,351	6,166	6,673	7,062	7,533
SA	No. of operator	20	16	16	16	13	18	23	23
	No. of city-paired	13	17	19	21	19	38	22	20
	Total pax	1,182	1,302	1,405	1,699	1,868	2,110	2,464	2,266
	Avg HHI	5,803	5,870	5,759	6,212	5,859	5,822	5,515	5,681
Total	No. of operator	77	84	85	86	84	113	102	95
	No. of city-paired	150	158	198	198	152	366	274	214
	Total pax	22,267	23,747	22,037	27,180	26,895	31,480	33,759	31,926
	Avg HHI	2,061	2,180	2,134	1,898	1,817	1,691	1,701	1,560

*AM=America, AS=ASEAN, EA=East Asia, EU=Europe, ME=Middle East, OC=Oceania, SA=South Asia

Table 6-20 Number of international operator, city-paired, total passenger and average HHI of all operators by 10 international segments: 2001-2008

Source: Department of Civil Aviation (2009) and Author's calculation

By comparison, considering only Thai airline operators serving in these 10 segments, the analysis could help to understand and interpret the airlines' behaviours in competing with foreign airline operators. For the Africa market, Thai operators started its first service in 2006 by THA. It has successfully penetrated the market. Its market share rising from 6.32 % in 2006 to 19.94% in 2008. Again, THA is the only one Thai

operator and leader in linking the America with Bangkok market. The airline had obtained around 80% average market share during the review period. In ASEAN market, there had been two to six Thai operators serving from 2001 to 2008. Though they had acquired more passenger volume, the market share had been slightly decreased from 55.41% in 2001 to 52.57% in 2008. The pattern is shared by the markets in East Asia, Europe, and Middle East destinations. In contrast, Thai operators serving the Oceania and South Asia segments had experienced the good record of their growing numbers of passenger carried as well as market share. THA is the carrier mainly contributes to such underlying relative market performance. (See Table 6-21)

Unit: Pax-'000s

Segment*	Results	2001	2002	2003	2004	2005	2006	2007	2008
AF	No. of operator						1	1	1
	No. of city-paired						2	2	1
	Total pax.						10	65	56
	% market share						6.32	26.82	19.94
AM	No. of operator	1	1	1	1	1	1	1	1
	No. of city-paired	1	1	1	1	2	4	2	2
	Total pax.	147	115	109	89	145	148	230	167
	% market share	84.93	75.92	74.58	69.89	78.03	79.95	89.25	89.87
AS	No. of operator	2	5	5	6	6	6	6	6
	No. of city-paired	23	21	25	25	23	38	28	25
	Total pax.	3,305	3,624	3,253	4,008	3,973	4,480	4,856	4,727
	% market share	55.41	56.07	54.77	52.43	52.00	50.57	52.23	52.57
EA	No. of operator	3	4	3	5	6	5	5	6
	No. of city-paired	23	29	35	34	30	64	37	30
	Total pax.	3,663	4,020	3,611	4,672	4,513	5,367	5,492	4,901
	% market share	40.01	41.19	41.36	43.17	43.87	44.52	44.88	43.99
EU	No. of operator	1	1	1	2	2	1	1	1
	No. of city-paired	11	13	13	15	15	40	32	19
	Total pax.	1,814	2,009	1,875	2,136	2,145	2,435	2,575	2,374
	% market share	46.12	48.99	48.35	47.35	48.89	48.41	46.90	45.08
ME	No. of operator	1	1	1	2	2	1	1	1
	No. of city-paired	2	5	5	7	6	9	6	4
	Total pax.	98	169	203	248	213	245	262	263
	% market share	13.25	19.51	22.18	19.46	14.83	12.85	12.02	11.65
OC	No. of operator	1	1	1	1	1	1	1	1

Segment*	Results	2001	2002	2003	2004	2005	2006	2007	2008
	No. of city-paired	6	6	8	8	5	13	6	7
	Total pax.	635	678	685	748	684	866	1,196	1,144
	% market share	63.21	69.18	73.75	73.89	70.46	73.75	75.15	74.45
SA	No. of operator	1	2	2	3	3	2	4	2
	No. of city-paired	8	10	11	13	14	30	17	15
	Total pax.	717	822	899	1,154	1,235	1,379	1,603	1,432
	% market share	60.68	63.16	63.99	67.94	66.14	65.37	65.08	63.19
Total	No. of operator	3	6	5	6	6	6	7	8
	No. of city-paired	74	85	99	105	95	201	133	108
	Total pax.	10,380	11,437	10,635	13,056	12,908	14,931	16,278	15,064
	% market share	46.62	48.16	48.26	48.03	48.00	47.49	48.23	47.19

*AM=America, AS=ASEAN, EA=East Asia, EU=Europe, ME=Middle East, OC=Oceania, SA=South Asia

Table 6-21 Number of operator, city-paired, total passenger and market share of Thai operators by 10 international segments: 2001-2008

Source: Department of Civil Aviation (2009) and Author's calculation

6.4 Intra-industry Analysis

In order to understand changes that emerged and to interpret phenomenon in the market, the intra-industry analysis is designed to facilitate these objectives. First of all, the target market, marketing mix strategies and corporate strategies employed of those airlines are analysed to understand their strategic choices and manoeuvring. The next step is to frame the collective properties of such movements and map their directions. As a result, the intra-industry analysis is constructed into two main elements, strategic choices and strategic group mapping.

6.4.1 Airline Strategic Choices

The summary of the collected and analysed data of all nine operating airlines' strategic choices in Thailand is illustrated in Table 6-22. The sources of data are the announced flight schedule, company's web-site, government's statistics and selected articles in local business newspaper and magazines. The first ten rows represent the operational and target market characteristics. The second part, row 10 − 17, clarifies airlines' marketing mix strategy in four main dimensions, product, price, place and

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promotion strategies. The last three rows show the strategic business unit, cooperation/alliance, and corporate strategies of each airline. However, the further analysis of airline strategic choices is produced for each airline. The analytical framework is based on those four selected classifications of strategies reviewed in chapter 2. They are strategic life cycle, positioning, characters, and interactions.

Thai AirAsia (AIQ): Since its first launched operation in early 2004, the airline has rapidly expanded its route network, both in domestic and internal markets. AIQ employ *develop/growth strategy* to grow through locating new products and exploiting market opportunities. The deployment of LCC business model introduces the new product to the air transport market in Thailand and result in stimulating new, price-conscious, demand. In term of strategic positioning, AIQ positions itself by *commodity strategy*. It targets a mass market, rather than the segmented or niche one, and its product strategy is to deliver *an economy quality with low price* as core benefits. *Prospector* character is the best match with the airline's strategic behaviours as it is always first mover and aggressive in network expansions as well as cost leader and offering low prices. The airline prefers to confront the direct and high competitions through executing *competitive strategy* in mostly the thick route markets as most of its target markets have relatively low HHI.

Bangkok Airways (BKP): the airline is the first privately owned carrier, which, currently, has the youngest fleet and offers the third largest available seat capacity per week. For the life cycle strategy, BKP is in the growth stage and employing *develop/growth strategy*. The airline has develop many truly new route networks through establishing its own airports in promising tourist detonations and/or penetrating the never been targeted airport markets. Its product's core value is to deliver *good quality with above average price*. The airline positions itself as 'Asian Boutique Airline', which represent its *niche strategy*, targeting a small isolated market segments with a sharply delineated products/services. BKP's strategic character could be defined as Analyzer as it attempts to minimise risk by defending its self-developed markets while maximising the opportunity for profit by competing on some selected thick routes as well as developing the new promising markets. The strategic interactions of BKP

represent its *de-competitive and cooperative strategies* as the most of its targeted markets are either no or low competition and many bilateral alliances have been formed.

Nok Air (NOK): NOK commenced its first operation in the mid of 2004 as LCC subsidiary airline of Thai Airways. The airline operates the forth largest available seat capacity per week. It is in the growth cycle and employing *develop/growth strategy* but with slow network expansion. Its product core value is *standard quality with low-average price*. Currently, Nok solely operates domestic flights after experiencing all failed development of international networks in two Asian countries. The airline strategic position is performing through *segmented strategy* as targeting two segments with its offered two seat class products, economy and business classes. The *analyzer* character could be the best fit with NOK's strategic behaviour as it makes an effort to minimise risk through monopolising one-third of all serving routes, whilst, exploiting the opportunity for profit on the high competitive, but thick, routes. The airline has executed both competitive and cooperative strategies as it targets the third lowest HHI routes and ties up operational and marketing alliance with its business partners, both airline and non-airline.

Orient Thai Airlines (OEA): The airline was established in 1992 and had suspended operations many times. OEA launched its LCC subsidiary in late 2003 to compete with AIQ and NOK which announced to serve the country market. Currently, it operates mainly charter and one schedule international city-pairs services, BKK-HKG. For the airline life cycle, the airline is executing *stabilise strategy* to maintain its competitive position through efficient asset unitisation and its targeted market segments. Its positioning represents by those *segmentation strategies* deployed in the market as offering different products for the different targeted segments. The airline's core product value is to deliver *standard quality service with low price*. The *analyzer* could be the most appropriate character reflecting the airlines' strategic behaviours as it aims to defend its promising market as well as expanding to the new markets through its LCC subsidiary airline. The airline is willing to confront with the direct and high competition on its targeted route market through executing *competitive strategies*.

One-To-Go (OTG): The airline was launch in late 2003 by OEA, its parent airline. OTG has played a very important role in domestic market before its first fatal accident in September 2007. Around a year after the accident, the airline was grounded by Thailand's Department of Civil Aviation in July 2008, as investigation found the airline failed to meet safety standard. It took around 19 weeks before the airline resuming its operations in early December 2008. At the present, OTG's operations base is at Bangkok Don Muang Airport, offering the fifth largest available seat capacity and serving the north and south markets. The airline is in decline stage and using turnaround strategy to arrest and reserve the declining fortunes of its business as quickly as possible. The airline's product core value is to deliver *standard quality service with low price*. OTG positions itself through commodity strategies as it targets a mass market with a single, standardised seat class product. The airline strategic character is *reactor* as it has exhibited an inconsistent and unstable pattern of adjustment to its changing environment. For the strategic interaction, OTG executes both *competitive and de-competitive strategies*. These could be explained by is targeted markets as nearly half of them are the monopolised markets, while, the rest are highly competitive ones.

PB Air (PBA): PBA started its first operation in 1998. At the present, its two regional aircrafts serves 14 routes linking Bangkok with Northern and Northeastern regions. The airline's current stage is in growing cycle, which leads to *develop/growth strategy* needed. All of its new operating routes are those being left by THA and/or ADW and VAP. Its core product value is determined by *good quality of products/services with average price*. It offers full service flight with some seasonal sale promotions. The airline employs *niche strategy* to define its positioning as it solely targets small routes, six in the north and four in the northeast. The best fit character of PBA is *analyzer* because it attempts to minimise risk through targeting promising, but small, routes and to make use of its new opportunities left over by the other airline operators. The airline certainly commits de-competitive strategy to avoid competition as it all operating routes have no competitor.

SGA Airlines (SGN): the airline operates the smallest aircrafts and provides least available seat capacity, serving on Northern, point-to-point, routes. SGN is in growth stage and executes develop/growth strategy through developing new routes linking two

favourite tourist destinations, Chiang Mai and Pai, as well as exploiting market opportunities on other low competition and used to be thick routes. The airline's core product value is based on its *standard quality of products/services with above average price*. Its positioning is maintained through niche strategy as targeting a small isolated market segment with a sharply delineated product. The *analyzer* is the most suitable character of SGN because the airline makes an effort to defend its self-developed market while maximise profit through those opportunities left by narrow body operators' service suspension. For the strategic interactions, the airline execute both de-competitive and cooperative strategies through targeting only the market having no or few competition and tying up its operation, ticket sale, and marketing promotion with NOK and other non-airline business partners.

SkyStar Air (SKT): The airline is the youngest operator established in 2005 and commenced its first operation in June 2007. It solely serves international routes, linking Thailand's Bangkok and Phuket with South Korea's Seoul and Pusan. SKT deploys *develop/growth strategy* to facilitate its growing stage as the airline grows through locating new route products linking Phuket and Pusan and exploiting high traffic volume city-paired markets, Bangkok-Seoul and Phuket-Seoul. The airline's core product value is to deliver *standard quality with average price*. The airline positions itself through *segmentation strategy*. Its two seat class products are designed to deliver different vales for different target segments. Only two years of SKT's operations may be too soon to define its strategic character. However, *analyzer* is deemed to be the best fit to the airline as it attempts to minimise risk through serving on promising thick routes and to maximise the opportunity for profit by locating truly new products in the market. SKT commits both *competitive* and *de-competitive strategies* as two-third of its all operating routes are highly competitive, while, the rest is monopolised by the airline.

Thai Airways (THA): The national carrier launched its first operation in May 1960. Currently, its biggest fleet serves 26 domestic and 126 international routes with the largest available seat capacity. The airline's first-ever loss in 2008 leads it to declining stage in which *turnaround strategy* is needed to resolve the situations. THA needs to arrest and reserve the declining fortunes of the business as quickly as possible through limiting negative cash flow, rationalising its route networks and operational

capacity. Its core product value is to deliver *good to superior quality with the average to high price*. The airline's positioning is achieved by employing *segmentation strategy* through targeting different market segments with a range of its route and seat class products. *Defender* is the most appropriate character representing THA's strategic behaviour as the airline focuses on maintaining position and entails aggressive marketing responses to encounter its growing competitors. The airline aims to confront the competition through both competitive and cooperative strategies as most of its serving markets are highly competitive and it performs both bilateral and multilateral alliance with airline and non-airline business partners.

Outputs/Targets/Strategies	AIQ		BKP		NOK	OEA	OTG	PBA	SGN	SKT*	THA	
	Dom.	*Int.*	*Dom.*	*Int.*	*Dom.*	*Int.*	*Dom.*	*Dom.*	*Dom.*	*Int.*	*Dom.*	*Int.*
Available seat/week	74,188	54,108	55,710	29,848	29,400	5,614	17,514	5,226	682	5,190	154,035	341,763
Flight/week	447	323	490	238	210	14	126	78	62	30	652	1,123
No. of operating route	20	24	20	28	12	2	14	14	6	6	26	126
No. of monopolised route	4	1	14	16	4	0	6	14	4	2	6	35
Avg. market share	36.82	33.05	80.91	66.73	71.24	8.68	67.51	100.00	69.23	40.54	68.36	63.44
Avg. HHI	5182	4042	8746	7052	6818	1811	7272	10,000	9526	5,828	6,764	5,962
Avg. relative market share value	0.63	2.62	2.57	0.56	1.42	0.28	0.79	-	0.08	0.22	2.65	1.88
Avg. rank on operating routes	1.88	2.58	1.40	2.41	1.00	4.00	1.57	1	1.33	2.67	1.15	1.22
Avg. number of competitor on operating routes	1.25	3.71	0.50	2.00	0.67	11.00	0.57	0	0.33	1.67	0.85	1.72
No. of aircraft		17		21	8	9	7	2	3	3		91
Seat classes	Economy class		Economy and Business classes		Economy and Business classes	n.a.	Economy class	Economy class	Economy class	Economy and Business classes	Economy/ Premium Economy /Business/First classes	
Free-services	Web check-in, Kiosk Check-In		Web check-in, 20 kg. checked baggage, airport lounges for all, FFP, assigned seat, meal & drink		Telephone check-in, 15-30 kg. checked baggage, assigned seat, snack, FFP	n.a.	20-30 kg. checked baggage, assigned seat, drink & snack, FFP	20 kg. checked baggage, assigned seat, drink & meal, FFP	20 kg. checked baggage	Checked baggage, assigned seat, meal & drink	Web check-in, Kiosk Check-In, 20-40 kg. checked baggage, airport lounges for Bus &Fir, FFP, assigned seat, meal & drink	
Paid – Related services/goods	Mobile Check-In, checked baggage, meal & drink, souvenir, e-gift voucher, assigned seat(partly), add insurance		Souvenir, duty free products		drink, souvenir, extra snack	n.a.	souvenir	-	-	-	Souvenir, duty free products	
Additional paid – Extra services	Holiday package, car rental, medial package, freight		Holiday package		Holiday package and car rental	n.a.	-	Holiday package	Holiday package	-	Holiday package, Hotel, Limousine, Cargo	

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Outputs/Targets/Strategies	AIQ		BKP		NOK	OEA	OTG	PBA	SGN	SKT*	THA	
	Dom.	Int.	Dom.	Int.	Dom.	Int.	Dom.	Dom.	Dom.	Int.	Dom.	Int.
	express											
Corporate service	Y		Y		Y	n.a.	n.a.	N	N	n.a.	Y	
Pricing	Vary-simple		Vary-complex		Vary-simple	Fix	Fix	Fix	Fix	Fix	Vary-complex	
Distribution Channel	Online, mobile, Call Centre, Airport sales counter, Sales office, Authorised travel agents		Online, Call Centre, Airport sales counter, Sales office, Authorised travel agents		Online, Mobile, Call Centre, Airport sales counter, Counter Service, ATM, Authorised Bank branches	Airline sales office and authorised travel agents	Online, Call Centre, Airport sales counter, Authorised Travel agents, Authorised Bank counter	Call Centre, Airport sales counter, Authorised Travel agents,	Online, Call Centre, Airport sales counter, Counter Service, ATM, Authorised Bank branches	Airline sales office and authorised travel agents	Online, mobile, Call Centre, Airport sales counter, Sales office, Authorised travel agents	
Promotion	Sales, package holiday, health package		Sales, package holiday, Prepaid card		Sales, package holiday	Sales, package holiday	Sales, package holiday, Prepaid card & voucher, student discount	Sales, package holiday, student discount	Sales, package holiday	-	Sales, package holiday	
Business unit	-		Ground Services, Catering, Airport		-	-	-	-	-	-	Ground Services, Catering, MRO, Reservation System, Hotel,	
Cooperation/Alliance	Product/service and Promotional Alliance		Product/service and Promotional Alliance		Product/service and Promotional Alliance	Promotional Alliance	Promotional Alliance	Product/service and Promotional Alliance	Product/service and Promotional Alliance	n.a.	Product/service and Promotional Alliance	
Corporate Strategy	Intensive and Diversification Growth		Intensive and Integrative Growth		Intensive Growth	Intensive Growth	Intensive Growth	Intensive Growth	Intensive Growth	Intensive Growth	Intensive, Integrative and Diversification Growth	

Table 6-22 Summary of Thai operators' outputs and strategies

6.4.2 Airline Strategic Group Mapping

Whereas the analysis of segmentation competition at route level concentrates on the characteristic of market, the strategic group analysis segments the industry on the bases of strategies pursued by the airlines. The strategy canvas of Blue Ocean Strategy is applied to capture the current state of airlines' strategies. Strategy canvas consists of airlines' offered value curve and strategies executed which could depict each airline's relative performance across the industry's competitive factors and develop more understanding about where the competition is currently focusing and what the factors the industry is competing on. Figure 6-3 shows the mapped offering value and strategies of all nine operating airlines in Thailand by fourteen competitive factors discussed in the previous section as an input data. The level of each offering value and executing strategy (vertical axis) are indicated by estimating relative outputs of all nine airlines.
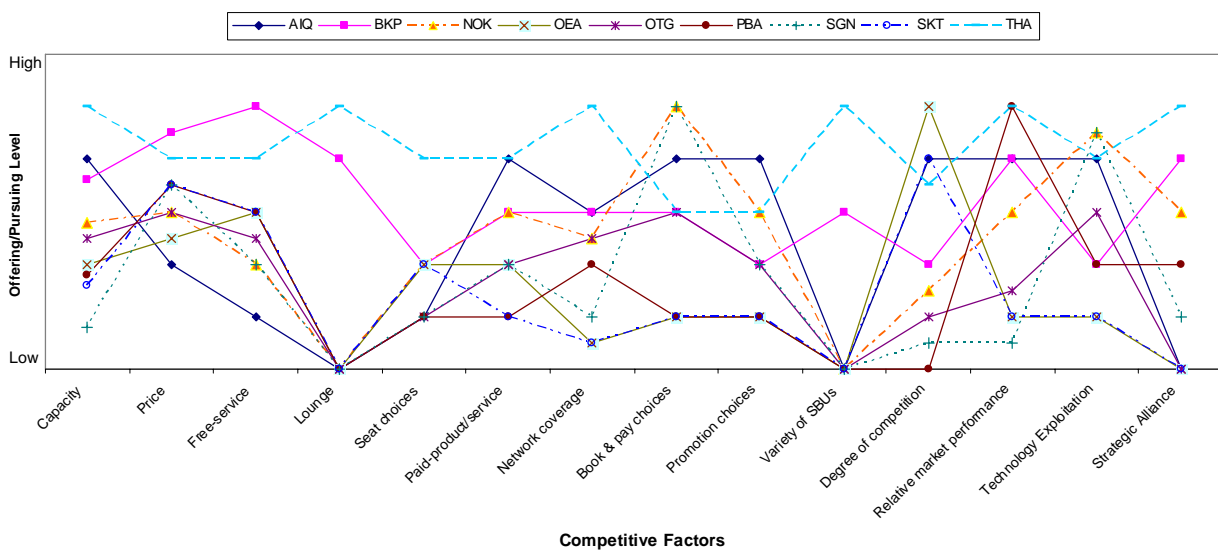
Figure 6-3 Strategy Canvas of all nine operating airlines in Thailand

The next step is to characterise the strategies of all nine airlines along these fourteen dimensions and map all airlines into strategic groups. "A strategic group is the group of firm in an industry following the same or a similar strategy along the strategic dimensions (Porter, 2004, p.129)." It is an analytical tool differentiating each airline's strategic posture and frame of reference between looking at the industry as a whole and considering each firm separately. The results of strategic groups of the airline industry in Thailand are displayed in Figure 6-4. The horizontal axis, degree of integration,

represents different level of relative intensity of airlines' strategies in integrative growth, including vertical integration, horizontal integration, and strategic alliance strategies. The vertical axis ranges from low to high relative complexity. High complexity indicates the great deal of sophisticated knowledge/operational processes about products, customers, and employed technology, etc. The position of each strategic group in the map is indicated by the author's relative estimation, rather than the exact quantitative value, and represents a concise virtual of relative dimensions and directions. While the size of particular circle represents the relative market volume of each strategic group.
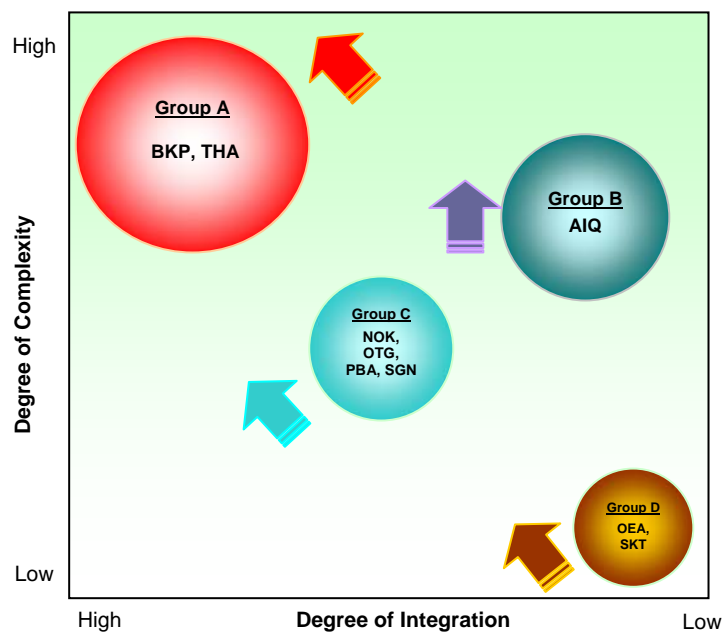
Figure 6-4 Strategy groups mapping of nine operating airlines in Thailand

The first group, Group A, consists of BKP and THA which have high degree of both integration and complexity and the biggest market volume. Their high degree of integration could be explained that these airlines acquire a number of vertical integrated SBUs such as ground services and catering. In addition, they have allied their operations with many airlines. Whereas, their high complexities are witnessed by their wide range of seat classes, routes, pricing system and technology employed. The group has tended towards increasing both its level of integration and complexity. The second group, Group B, in which AIQ is the only one, has the second biggest market volume. This group has low degree of integration but high complexity. Its low integration degree could be described that there is no integrated SBU in AIQ but the airline has to perform

some horizontal integration activities by coordinating with its parents Malaysia AirAsia and other AirAsia franchisee airlines. Its high complexity represents the airline's variety of available routes and ancillary products/services and some advanced technology used to enhance its operational efficiency. The group tends to increase the degree of complexity but retains its low level of integration.

The third group is Group C to where NOK, OTG, PBA and SGN belong. It has the third biggest market volume. They all have a moderate degree of both integration and complexity. The reasons are that the airlines have to cooperate with their allied or parent airlines. They do not operate many routes and only have a few seat classes and one aircraft type. The group tends to increase level of both integration and complexity in the future. The last group, Group D, consists of OEA and SKT. It has low degree of integration because both airlines have little integration with external parties. The reasons for its low complexity are that the airlines operate on only 1-2 city-paired markets with two seat classes. In the future, the group is deemed to shift toward the same direction as Group A and C by increasing level of both complexity and integration.

6.5 Sample and Analysis of Interviews: Cognitive Mapping

Interviews were conducted with a number of top executives from the aviation industry in Thailand. There are 13 interviewees; eight from six airlines, four from the country's DCA and one from IATA's country office. Though there are nine airlines operating in Thailand, these six airlines represented by airline interviewee share 96.34% of total available seat/week supplied by all nine airlines. Thus they could represent the majority of the country's airline industry. The sample were selected through 'purposive sampling technique' by, firstly, sending interview invitation letters to all nine airlines' CEO, DCA's Directorate General and IATA's country manager. The letter directly invited the organisation's CEO and/or other qualified executives whom would be assigned by its CEO to join the interview session. Two airline CEOs and six airline top executives from six airlines, the DCA's directorate general and three directors, and IATA's country manager agreed to participate in the interviews. A summary of the samples' profiles are presented in Table 6-23. Each individual interview session lasted

for around 45-60 minutes. During the interviewing period, all conversations are recorded.

Organisation: No. of interviewee	Interviewee' Rank	Organisation: No. of interviewee	Interviewee' Rank
IATA: 1	- Country Manager	DCA: 4	- Director General - Director of Air Transport Regulatory Bureau - Director of Air Transport Promotion Bureau - Director of Air Service Agreement and Negotiation Division
AIQ: 1	- Chief Executive Officer	BKP: 1	- Director of Marketing and Customer Relationships
NOK: 3	- Chief Commercial Officer - Director of Strategic Planning - Director of Marketing and Distributions	PBA: 1	- Director of Marketing and Business Development
SGN: 1	- Chief Executive Officer	THA: 2	- Executive Vice President for Strategic Planning & IT - Director of Strategy Evaluation

Table 6-23 Summary of interviewees' number and profile

The recorded scripts of interviews are analysed by 'Cognitive Mapping' to explore the emergent properties and consolidate understanding toward the issues. At the initial state, the analysis is applied by mapping the recorded interviews into a diagram of concepts and links. The examples of cognitive maps are presented in APPENDIX E. There are 13 cognitive maps being produced and analysed. All results are allocated into 10 categories with 347 separate concepts. These 10 categories are nearly similar to the previous coding developed in Chapter 5. They are broad, competition, cooperation, distribution, infrastructure/resources, internal, market, regulation/policy, strategy, and technology categories. Finally, three dimensions of the analysis are considered; concept density, concept centrality and concept tail (see Table 6-24).

Categories and Concepts	Occ	Concept Density		Concept Centrality		Concept Tail		%Occ
		Tot	Tot/Occ	Sco	Sco/Occ	Tail	Tail/Occ	
Broad	**33**	**45**	**1.36**	**145**	**4.39**	**26**	**0.79**	**9.51**
Accident-other airline	1	1	1.00	7	7.00	1	1.00	0.29
Country Characteristics	4	6	1.50	11	2.75	3	0.75	1.15
Currency Chnages	4	5	1.25	13	3.25	4	1.00	1.15
Economic Situation	7	8	1.14	26	3.71	5	0.71	2.02
Investment	2	6	3.00	13	6.50	0	0.00	0.58
Iraq war	1	1	1.00	6	6.00	1	1.00	0.29
Natural disaster	11	15	1.36	54	4.91	9	0.82	3.17
Terrorist Attack	3	3	1.00	15	5.00	3	1.00	0.86

Categories and Concepts	Occ	Concept Density		Concept Centrality		Concept Tail		%Occ
		Tot	Tot/Occ	Sco	Sco/Occ	Tail	Tail/Occ	
Competition	**32**	**76**	**2.38**	**183**	**5.72**	**5**	**0.16**	**9.22**
Competition Characteristics	13	34	2.62	86	6.62	2	0.15	3.75
Competition-Price	3	5	1.67	15	5.00	0	0.00	0.86
Competitor Behaviour	5	6	1.20	13	2.60	2	0.40	1.44
Competitor's Competitive Advantage	3	14	4.67	27	9.00	0	0.00	0.86
Incumbent Behaviour	4	6	1.50	23	5.75	1	0.25	1.15
Market share-Changes	2	7	3.50	15	7.50	0	0.00	0.58
Substitute Product	2	4	2.00	4	2.00	0	0.00	0.58
Cooperation	**5**	**13**	**2.60**	**25**	**5.00**	**1**	**0.20**	**1.44**
Cooperation-organisation	2	4	2.00	10	5.00	0	0.00	0.58
Regional Cooperation	3	9	3.00	15	5.00	1	0.33	0.86
Distribution	**11**	**25**	**2.27**	**62**	**5.64**	**1**	**0.09**	**3.17**
Distribution-New Channels	2	6	3.00	14	7.00	0	0.00	0.58
Distribution Problem	1	1	1.00	3	3.00	0	0.00	0.29
Distribution-choices	8	18	2.25	45	5.63	1	0.13	2.31
Infrastructure/Resources	**30**	**54**	**1.80**	**132**	**4.40**	**14**	**0.47**	**8.65**
Air navigation charges	2	4	2.00	11	5.50	0	0.00	0.58
Aircraft	4	8	2.00	16	4.00	1	0.25	1.15
Airport Characteristics and Usage	3	6	2.00	14	4.67	1	0.33	0.86
Airport Charges	5	10	2.00	21	4.20	0	0.00	1.44
Fuel Price	10	13	1.30	41	4.10	10	1.00	2.88
Insurance Cost	1	2	2.00	7	7.00	0	0.00	0.29
Infrastructure Improvement	2	2	1.00	2	1.00	2	1.00	0.58
Infrastructure-Limitation	1	1	1.00	4	4.00	0	0.00	0.29
Traffic Rights-Utilisation	2	8	4.00	16	8.00	0	0.00	0.58
Internal	**29**	**65**	**2.24**	**163**	**5.62**	**6**	**0.21**	**8.36**
Airline Fleet	1	1	1.00	1	1.00	1	1.00	0.29
Airline Operation Problem	1	1	1.00	3	3.00	1	1.00	0.29
Airline Situation	1	3	3.00	5	5.00	0	0.00	0.29
Airlines Competitiveness Problem	1	1	1.00	2	2.00	1	1.00	0.29
Cost Characteristics	6	16	2.67	46	7.67	0	0.00	1.73
Financial Strength	2	2	1.00	9	4.50	2	1.00	0.58
Financial Problem	6	18	3.00	42	7.00	0	0.00	1.73
Planning characteristics	4	7	1.75	11	2.75	0	0.00	1.15
Relationship with parent company	1	1	1.00	3	3.00	1	1.00	0.29
Revenue Characteristics	6	15	2.50	41	6.83	0	0.00	1.73
Market	**116**	**305**	**2.63**	**714**	**6.16**	**19**	**0.16**	**33.43**
Airline Growth	9	40	4.44	87	9.67	2	0.22	2.59
Airline Growth-limitation	2	14	7.00	19	9.50	0	0.00	0.58
Brand Problem	2	2	1.00	7	3.50	2	1.00	0.58
Brand-Building	3	6	2.00	19	6.33	0	0.00	0.86
Capacity-Change	3	6	2.00	15	5.00	1	0.33	0.86
Changing Number of players	5	17	3.40	34	6.80	0	0.00	1.44
Customer Behaviour	7	12	1.71	33	4.71	4	0.57	2.02
Demand Change	7	24	3.43	54	7.71	0	0.00	2.02
LCC emergence	9	18	2.00	54	6.00	4	0.44	2.59
LCC-Growing	1	1	1.00	12	12.00	0	0.00	0.29
LCC-Product	1	2	2.00	6	6.00	0	0.00	0.29
Marker Size	2	2	1.00	11	5.50	1	0.50	0.58
Market Contracted	2	5	2.50	9	4.50	0	0.00	0.58

Categories and Concepts	Occ	Concept Density		Concept Centrality		Concept Tail		%Occ
		Tot	Tot/Occ	Sco	Sco/Occ	Tail	Tail/Occ	
Market Coverage	1	3	3.00	6	6.00	0	0.00	0.29
Market Developed-New	3	12	4.00	29	9.67	0	0.00	0.86
Market Developed-Own market	2	4	2.00	9	4.50	0	0.00	0.58
Market growth	6	21	3.50	43	7.17	1	0.17	1.73
Market growth-Limited	2	5	2.50	11	5.50	0	0.00	0.58
Market Positioning	3	8	2.67	15	5.00	0	0.00	0.86
Market Re-Positioning	1	2	2.00	5	5.00	0	0.00	0.29
Market Targeted	13	23	1.77	70	5.38	0	0.00	3.75
Market-Opportunities	1	2	2.00	4	4.00	0	0.00	0.29
Market-Seasonality	3	6	2.00	9	3.00	2	0.67	0.86
Market-Situation	4	11	2.75	22	5.50	1	0.25	1.15
Network expansion	4	16	4.00	39	9.75	0	0.00	1.15
New Demand created	1	3	3.00	8	8.00	0	0.00	0.29
Problem to Customer	2	5	2.50	7	3.50	0	0.00	0.58
Route -Service Changed	7	17	2.43	33	4.71	0	0.00	2.02
Ticket Price Changed	5	10	2.00	26	5.20	0	0.00	1.44
Yield-Characteristics & Changes	5	8	1.60	18	3.60	1	0.20	1.44
Regulation/Policy	**55**	**115**	**2.09**	**281**	**5.11**	**29**	**0.53**	**15.85**
Additional taxes and charges	1	1	1.00	3	3.00	1	1.00	0.29
ASAs-more liberalised	3	9	3.00	24	8.00	0	0.00	0.86
Conflicts of interest	1	1	1.00	3	3.00	1	1.00	0.29
Country's Interest-Protected	2	4	2.00	9	4.50	1	0.50	0.58
Foreign Government's problem	2	2	1.00	4	2.00	2	1.00	0.58
Government's problem	1	2	2.00	3	3.00	1	1.00	0.29
Liberalisation-Country	9	19	2.11	43	4.78	9	1.00	2.59
Liberalisation-Regional	1	2	2.00	4	4.00	1	1.00	0.29
Political Interferences	3	4	1.33	8	2.67	3	1.00	0.86
Political situation-Unstable	2	2	1.00	8	4.00	2	1.00	0.58
Regulation-Need to be changed	1	2	2.00	5	5.00	0	0.00	0.29
Regulation Change	10	26	2.60	66	6.60	0	0.00	2.88
Regulation Problem	10	18	1.80	49	4.90	5	0.50	2.88
Regulator action	4	7	1.75	18	4.50	2	0.50	1.15
Regulator change	3	12	4.00	21	7.00	0	0.00	0.86
Regulator Problem	2	4	2.00	13	6.50	1	0.50	0.58
Strategy	**32**	**78**	**2.44**	**196**	**6.13**	**12**	**0.38**	**9.22**
Airline Strategy	1	3	3.00	8	8.00	0	0.00	0.29
Airline-Dynamicity	1	1	1.00	5	5.00	1	1.00	0.29
Economy of Scale	2	3	1.50	10	5.00	2	1.00	0.58
Operational Strategy	5	6	1.20	22	4.40	3	0.60	1.44
Opportunity Exploitation	1	2	2.00	5	5.00	0	0.00	0.29
Strategies-Marketing	4	6	1.50	21	5.25	3	0.75	1.15
Strategy Consistency	2	5	2.50	12	6.00	1	0.50	0.58
Strategy-Timing for Product Launch	1	1	1.00	3	3.00	1	1.00	0.29
Strategy-Break rule to force changes	1	3	3.00	10	10.00	0	0.00	0.29
Strategy-changes	4	21	5.25	48	12.00	0	0.00	1.15
Strategy-Customer oriented	2	8	4.00	13	6.50	0	0.00	0.58
Strategy-Differentiation	1	2	2.00	4	4.00	0	0.00	0.29
Strategy-Financial	2	5	2.50	8	4.00	0	0.00	0.58
Strategy-Product development	2	4	2.00	12	6.00	1	0.50	0.58
Strategy-Scanning Environment	1	3	3.00	6	6.00	0	0.00	0.29

Categories and Concepts	Occ	Concept Density		Concept Centrality		Concept Tail		%Occ
		Tot	Tot/Occ	Sco	Sco/Occ	Tail	Tail/Occ	
Strategy-Target market	2	5	2.50	9	4.50	0	0.00	0.58
Technology	**4**	**9**	**2.25**	**15**	**3.75**	**1**	**0.25**	**1.15**
Technology Advantage	3	6	2.00	8	2.67	1	0.33	0.86
Technology-Exploitation	1	3	3.00	7	7.00	0	0.00	0.29
Grand Total	*347*	*785*	*2.26*	*1,916*	*5.52*	*114*	*0.33*	*100.00*

Table 6-24 Occurrence, density, centrality and tail of concepts and categories

6.5.1 Concept Density

Density is the measure of the number of other concepts which are directly linked to a particular concept at one level of links. The analysis looks at the connectivity of concepts. Density analysis is used to identify 'busy' concepts in a model. Concepts, which have either a high number of links going into or out of them, tend to be key issues in a model.

The results are shown in 'Concept Density' section of Table 6-24. 'Occ' stands for occurrences of concepts in the cognitive maps. 'Tot' refers to the total number of other concepts which immediately link around each particular concept, either link in or out. For example, the 'Airline Strategy' concept with 3 direct links in Map1 and 'Airline Strategy' concept with 5 direct links in Map2, would produce an aggregated result of 2 for 'Occ' and 8 for 'Tot'. The column headed 'Tot/Occ' lists down the ratio between the two results. This represents the mean number of direct links to each concept/category. Higher ratio indicates more important concept in term of its direct influence.

'Market' category has the highest density, followed by 'cooperation', 'strategy', and 'competition' factors. It means that any changes from/to these four factors tend to directly affect many factors having immediate links to/from them. For market factors, airline growth and market growth are the concepts having the highest density. These outline the importance of growing demand and supply of airline market to the business environment.   For cooperation factor, regional cooperation and organisational cooperation have the highest density scores, which indicates that the cooperation among countries and organisations play vital roles in forming immediate changes.

Strategy category refers to changes of strategy and customer oriented strategy as the highest density concepts. Change of airline strategy certainly and directly affects both supply and demand sides. While, customer oriented strategy forces airline to commit radical changes in order to improve all of its products, pricing policy, distribution channel, promotion and communication, which finally influence changes to its customers and competitors. Within competition category, competitor's competitive advantage and changes of market share are the highest density concepts. The competitive advantage of competitor directly leads to the changes of airline strategies to encounter potential threats. For the market share changes, every single market has certain level of limitation. Gaining or losing market share of one airline always occurs at the expense of other airlines in the same market, therefore, market share changes in the market would result in strategic change of airline in order to defend its already satisfied results or invade for more market share.

6.5.2 Concept Centrality

Centrality analysis goes further than density analysis by bringing in the wider context of the concepts. The method focuses on their connectivity to specific level of linkages beyond the central concepts. Therefore, the analysis measures the broad influence or criticality of each concept to the whole cognitive map rather than just to the immediate concepts on the map. The results of this analysis are given in concept centrality section of Table 6-24. 'Sco' refers to aggregated scores calculated within the Decision Explorer software. The scoring system has already explained in Chapter 3. The ratio of 'Sco/Occ' indicates direct and indirect patterns of mean scores influence by causal factors and also provides a measure of such influence or criticality.

'Market' factors are the most critical factor to the maps, followed by 'strategy', 'competition', and 'distribution'. These results indicate the importance of the four factors as they broadly influence changes to the whole business environment. For market category, 'growing of airline, especially for LCC,' creates the dramatically changes within the industry as the concept having the highest centrality. LCC emergence not only makes incumbent losing its market share, but also creates the new demand type, price-conscious, by its low fare offered. The strategy category has

'changes of airline strategy' and 'break rule to force change-strategy' as the highest critical concepts. The changes of airline strategy play significant roles in both immediately effecting and broadly influencing changes within the business environment. Furthermore, 'break rule to force change-strategy' deployed by AIQ has been proved as it successfully influences remarkable changes to the regulatory elements. Regulator, after being challenged by this strategy, has improved a number of regulations to allow airline operating in more efficient ways and still maintaining safety standard.

For the strategy category, 'competitor's competitive advantage' and 'changes of market share' again have the highest criticality. These could be explained that the concepts are derived from one of the most significant player in the environment, airline as a supply producer. Any changes of airline's strategy lead to both directly and broadly changes of other players in the environment. This represent the *interconnectivity properties* f the concepts/factors. Within the distribution category, 'new distribution channel' play the most remarkable role as having the highest criticality to the changes in airline business environment. The newly developed distribution channel leads to the changes of both consumer and competitor behaviours from the traditional way to the new one. There are number of new distribution channels discussed in the next chapter (section 7.1.7).

6.5.3 Concept Tail

As already discussed in Chapter 3, the term 'tail' represents those causes of changes as being root causes at the deepest level on the cognitive maps. In general, tails are interesting because they are the original cause of other concepts/consequences. Section 'Concept Tail' of Table 6-24 shows the number of tail recorded as the number of tails occurrences and a ratio of 'Tail/Occ' indicate mean scores of tail occurrence. High number of ratio refers to the high significant level of particular concept as an underlying root cause.

'Broad' factors have the highest ratio of tail occurrence, followed by 'regulation/policy', 'infrastructure/resource', and 'airline strategy'. These could be

explained that the factors are the most influential root causes of changes in the airline business environment. For the broad category, 'natural disaster', 'currency', 'war/terrorism', and 'airline accident' are the concepts having the same and highest ratio of tail occurrence. These mean the concepts, which mainly are the macro/general factor in business environment, are the root causes initiating many changes in the market. For regulation/policy category, 'liberalisation' and 'government interference' concepts have the highest ratio of tail occurrence. Liberalisation policy has initiated a series of radical changes to the airline industry, such as, more new entrants, emergence of new airline business model (LCC), new route developed, lower fare offered, and higher competition. Government interference is deemed to originally influence changes of flag carrier's moves and regulatory transformation and enforcement.

Infrastructure/resource category has 'fuel price' and 'infrastructure improvement' as the concepts having highest tail occurrence ratio. The fuel price turmoil during past five years has led to many difficulties in the industry. Many airline experienced financial difficulties and the decrease of passenger traffic. The consumer also had to pay more for purchasing air ticket as fuel surcharges applied. Infrastructure improvement is the root cause providing positive effects as it offers mutual benefits for both airline and passenger. Improved infrastructure leads to achieve more capacity and efficiency for the airline and more satisfaction for the consumer. In airline strategy category, 'economy of scale' concept has the highest ratio of tail occurrence. Economy of scale is the fundamental rational making airline to expand its business scale because it could lead to substantial cost reduction as well as to gain more competitive advantage.

6.5.4 Section Conclusions

Regarding the complete results shown in Table 6-24, ten categories, which are emerged from transcribing interviews into cognitive maps, are analysed by three different techniques; concept density, concept centrality and concept tail occurrence. In practice, Concept density could signify the direct impact level of the concepts/change drivers, while, concept centrality could tell the broad impact or criticality of concepts/change drivers to airline business environment. Concept tail occurrence, the

last measures, could identify which concepts/change drivers are the original causes of those changes in the environment.

More summarised results from these three measures, including %occurrence of each category, are shown and compared in Table 6-25. The results from both density and centrality analysis of ten categories are deemed to nearly share the same rank ordered. Only 'cooperation' and 'technology' categories have significantly different results from these two measures (differing more than two ranks). Therefore, these could be interpreted that most of underlying change drivers having high direct impact level would have high criticality to whole changes in the environment as well. In contrast, cooperation and technology categories have high level of immediate impact but relatively low level of broad impact. For the tail occurrence, most of all categories having low level of density and criticality would have relatively high level of tail occurrence. This outlines the reversed characteristics from two different measures, density and centrality versus tail occurrence. Thus, the key change driver, which plays a significant role as root cause, has relatively low criticality to the changes in the airline business environment.

Category	%Occ	Rank	Tot/ Occ	Rank	Sco/ Occ	Rank	Tail/ Occ	Rank	Avg. Rank	Rank
Broad	9.51	3	1.36	10	4.39	9	0.79	1	5.75	5
Competition	9.22	4	2.38	4	5.72	3	0.16	9	5.00	4
Cooperation	1.44	9	2.60	2	5.00	7	0.20	7	6.25	6
Distribution	3.17	8	2.27	5	5.64	4	0.09	10	6.75	9
Infrastructure/Resource	8.65	6	1.80	9	4.40	8	0.47	3	6.50	8
Internal	8.36	7	2.24	7	5.62	5	0.21	6	6.25	6
Market	33.43	1	2.63	1	6.16	1	0.16	8	2.75	1
Regulation/Policy	15.85	2	2.09	8	5.11	6	0.53	2	4.50	3
Strategy	9.22	4	2.44	3	6.13	2	0.38	4	3.25	2
Technology	1.15	10	2.25	6	3.75	10	0.25	5	7.75	10

Table 6-25 Summary of cognitive mapping analysis results of 10 emerged categories

In summary, defining the 1st to 4th ranks represent the high level of importance to the changes in airline business environment, these ten factors have their own significant level in a particular dimension. These results could be explained that the factors are underlying change drivers and could affect the airline business environment in different dimensions. Some drivers directly influence changes in many of their interacted factors but rarely affect changes in the whole system. Whereas, some drivers

could induce wide and high impact level across the industry and some drivers only play significant role as change initiators. All of these findings are discussed and integrated to the previous results in the next chapter in order to construct new airline business environmental analysis frameworks.

6.6 Sample and Analysis of Questionnaire Survey: Descriptive Analysis

This topic is the last section of Chapter 6 and illustrates the results of research module 2-2 (RM2-2). The module aims to identify the industry executives' and experts' perceptions toward impact and importance of each particular driver toward changes in the airline business environment. Questionnaire survey is used as a research method. The completed questionnaires are analysed by descriptive analysis technique.

Samples are selected through 'purposive sampling technique' by asking the top executive of particular organisation participating interview session to ask any of his/her executives or senior staff who is responsible for and/or directly involves the organisation's strategic planning . For the airline industry, there are five, from nine, airlines participating in the survey. These five airlines account for 96.25 % of total available seats/week of all Thai airline operators. In addition, four experts from DCA agreed to complete the questionnaire survey as well. In summary, there are 7 top executives, 6 middle executives and 5 low-level managements from these airlines and 2 top and 2 middle executives of the regulator completing all questions in three parts. Therefore, they could represent the majority of the country's airline industry executives and experts dealing with strategic planning. The summary of respondent's number and organisation are listed in Table 6-26.

Unit: people

Management Level	DCA	AIQ	BKP	NOK	PBA	THA	*Total*
Top	2	1	1	2	2	1	*9*
Middle	2	1	2	-	1	2	*8*
Low	-	2	1	2	-	-	*5*
Total	*4*	*5*	*4*	*4*	*3*	*3*	*22*

Table 6-26 Summary of number of respondent by participating organisations

6.6.1 Respondents' Background

In Part I of the questionnaire, there are two questions asking the respondent to provide their professional background and experiences which are shown in Table 6-27. The first question asks the respondent to mark a scale of 0-5 indicating relative involvement in 10 fields of work, ranging from Accounting to Other fields. For overall average score rated by all respondents, the highest scores belong to Strategic Planning field, followed by Marketing, Human Resource Management (HRM) and Law fields. For DCA, its respondent mostly involve in Policy and Economics fields of work. Regarding years of working experience, respondents' maximum year of experience is 36 and the minimum one is 1.5. Therefore, the sample

Unit: mark

Background	DCA	AIQ	BKP	NOK	PBA	THA	Overall Average
Accounting/Economic*	4.50	1.50	1.75	0.75	1.33	1.33	1.33**
Cabin Crew/Policy*	4.75	2.75	1.75	0.25	3.67	1.00	1.88**
Engineering	0.25	3.25	1.75	0.50	3.33	1.33	1.74
Finance	1.25	1.50	1.75	1.25	2.33	2.00	1.68
Flying	0.50	2.50	1.25	0.00	3.67	2.33	1.71
HRM	2.00	2.75	1.75	1.25	3.33	3.00	2.35
Law	4.25	1.00	1.75	1.75	3.00	2.00	2.29
Marketing	1.75	2.25	3.00	4.00	3.00	3.00	2.83
Strategic Planning	3.75	3.00	1.75	4.50	3.67	5.00	3.61
Other :	-	-	5.00[1]	3.00[2]	-	4.00[3]	-
Work Experiences: years	23.75	8.75	11.63	5.28	12.00	21.33	13.79

Remark: *=for DCA only; **=exclude DCA's data;1=Travel Office & Customer Service, Feedback Handling, and Operations, 2=Distribution, 3=Information Technology

Table 6-27 Respondents' professional background and experiences

6.6.2 Impact of Key Change Drivers

In Part II, there are 26 sub-questions asking the respondent to mark impact level (from 0 to 5) of particular factor that affects changes within the airline industry. These 26 sub-questions are categorised into 9 main categories. The summary of all questions' results are presented in Table 6-28. For each key change drives, 'expanding of low fare/cost carrier' factor has the highest score, followed by 'price war', 'regional and

domestic deregulation/liberalisation of airline industry' and 'changing customer expectation' factors. Two from these four drivers are in market category and the rest are in regulation/policy and competition categories. Considering the average scores of each category, 'market' and 'regulation/policy', followed by 'competition' and 'infrastructure/resource' categories are rated as the highest impact change drivers. These results are very similar to the results from RM2-1 as most categories from RM2-1 and this RM2-2 share the same ranked order of importance/impact level.

Unit: mark

Categories	Question No.	DCA	AIQ	BKP	NOK	PBA	THA	Question avg.	Factor avg.
Competition	7	4.25	3.75	5.00	4.00	4.67	4.33	4.32	3.74
	9	3.00	3.25	4.00	2.75	3.67	2.67	3.23	
	14	3.25	4.25	4.25	3.75	3.33	3.00	3.68	
	25	3.00	4.50	3.00	3.75	4.00	4.33	3.73	
	Airline avg.	3.38	3.94	4.06	3.56	3.92	3.58	3.94	
Market	4	3.75	4.00	5.00	4.50	3.67	4.33	4.23	3.91
	10	4.75	4.50	4.25	4.25	5.00	4.33	4.50	
	13	5.00	3.25	4.00	4.00	3.67	3.67	3.95	
	17	5.00	3.75	3.50	3.00	3.33	3.67	3.73	
	18	3.50	3.00	3.25	2.50	3.67	3.00	3.14	
	Airline avg.	4.40	3.70	4.00	3.65	3.87	3.80	3.70	
Technology	8	4.00	3.50	4.50	3.50	3.67	3.33	3.77	3.32
	20	2.75	3.00	3.75	2.25	4.00	3.33	3.14	
	24	2.00	3.25	4.25	3.25	2.67	2.67	3.05	
	Airline avg.	2.92	3.25	4.17	3.00	3.44	3.11	3.25	
Regulation/ Policy	1	4.75	3.00	4.50	3.75	4.67	5.00	4.23	3.91
	2	4.50	4.50	4.25	3.00	4.67	5.00	4.27	
	12	1.50	3.00	4.00	3.50	4.00	3.67	3.23	
	Airline avg.	3.58	3.50	4.25	3.42	4.44	4.56	3.50	
Cooperation	11	4.50	2.75	4.25	3.00	4.33	3.33	3.68	3.41
	16	2.00	4.00	3.25	3.75	3.33	2.33	3.14	
	Airline avg.	3.25	3.38	3.75	3.38	3.83	2.83	3.38	
Distribution	6	4.25	3.50	4.00	3.75	3.33	3.67	3.77	3.59
	23	3.00	3.25	4.00	3.25	3.67	3.33	3.41	
	Airline avg.	3.63	3.38	4.00	3.50	3.50	3.50	*3.38*	
Infrastructure/ Resources	15	4.00	4.50	3.75	4.50	3.33	4.00	4.05	3.70
	21	3.00	3.75	3.75	3.25	3.33	3.00	3.36	
	Airline avg.	3.50	4.13	3.75	3.88	3.33	3.50	*4.13*	
Broad	3	4.00	3.50	4.25	2.75	4.00	4.33	3.77	3.64
	5	3.75	3.75	4.25	3.50	3.67	2.67	3.64	
	19	2.00	4.00	4.00	2.25	4.00	2.33	3.09	
	22	2.75	4.25	4.50	4.25	4.67	4.00	4.05	
	Airline avg.	3.13	3.88	4.25	3.19	4.08	3.33	*3.88*	
Other	25		5.00[1]			5.00[2]			

Remark: 1=Safety & Reliability and 2=Fuel Price; the highest scores are underlined

Table 6-28 Scores summary of all 26 questions in questionnaire's Part II

Regarding the results rated by each airline and regulator, DCA and THA rated 'market' category as having the highest impact level. This could be explained that DCA, as a regulator, is responsible for market performance oversight, therefore, change in the market is the most important factor from their views. While, THA, as a national carrier and market leader, attempts to focus on defending its existing markets rather than develop the new market (discussed in section 6.4.1), thus, the airline perceive market factor, especially for 'changing customer expectation', as the most critical driver. BKP has the same view as PBA in rating 'financial instability' within broad category as the most important key change drivers. Both airlines are privately owned, full service, carriers and have experienced a number of economic downturn periods, therefore, they may perceive that financial resource is the most critical factor affecting the sustainable growth of airline business. Finally, AIQ and NOK, as they both are LCCs, scored 'airport capacity limitation' in 'infrastructure/resources' category with the highest points. This could be explained that both airlines have tried to compete on offering more service frequencies, therefore, the airport capacity become their key success factor.

6.6.3 Key Change Drivers' Importance and Effort Put into Environmental Analysis

Part III of the questionnaire survey aims to explore the impact of each key external factor and airline's efforts that have been put into analysing that particular factor in its strategic planning. Eight categories are listed and asking respondent to rate 0-5 scales. Blank space is also provided for adding 'Other' factor to which the particular respondent may add. *Remark: the highest scores are underlined*

Table 6-29 illustrates the results with additional calculation of overall average scores and different scores between each factor's 'Impact' and 'Effort'.

Unit: marks

Factors	Measures	DCA	AIQ	BKP	NOK	PBA	THA	Avg.
Competition	Impact	4.25	4.25	3.75	5.00	4.67	5.00	4.43
	Effort	4.25	3.75	4.00	3.33	4.33	4.00	3.95
	Diff.	0.00	0.50	-0.25	1.67	0.33	1.00	0.48
Market	Impact	4.75	4.50	4.50	5.00	4.67	4.67	4.67
	Effort	4.50	3.75	4.25	4.33	4.00	4.33	4.19
	Diff.	0.25	0.75	0.25	0.67	0.67	0.33	0.48

Factors	Measures	DCA	AIQ	BKP	NOK	PBA	THA	Avg.
Technology	Impact	4.00	3.75	4.25	3.67	4.00	3.67	3.90
	Effort	3.25	2.75	4.00	3.00	<u>3.00</u>	2.67	3.14
	Diff.	<u>0.75</u>	1.00	0.25	0.67	<u>1.00</u>	1.00	<u>0.76</u>
Regulatory/Policy	Impact	4.00	<u>4.75</u>	<u>4.75</u>	4.33	<u>4.67</u>	3.00	4.29
	Effort	3.75	<u>4.00</u>	4.25	4.33	4.00	2.67	3.86
	Diff.	0.25	0.75	<u>0.50</u>	0.00	0.67	0.33	0.43
Cooperation	Impact	4.00	4.25	4.00	4.00	4.00	3.33	3.95
	Effort	3.75	3.00	4.00	3.67	<u>3.00</u>	2.67	3.38
	Diff.	0.25	1.25	0.00	0.33	<u>1.00</u>	0.67	0.57
Distribution	Impact	3.50	4.25	4.50	4.33	4.00	3.33	4.00
	Effort	3.00	3.25	<u>4.25</u>	4.33	3.33	2.00	3.38
	Diff.	0.50	1.00	0.25	0.00	0.67	<u>1.33</u>	0.62
Infrastructure/ Resources	Impact	3.00	4.50	4.50	3.33	3.67	3.67	3.81
	Effort	3.00	2.75	4.00	3.67	3.67	4.00	3.48
	Diff.	0.00	<u>1.75</u>	<u>0.50</u>	-0.33	0.00	-0.33	0.33
Broad	Impact	2.75	3.75	4.50	4.33	3.00	2.67	3.52
	Effort	2.75	2.75	<u>4.25</u>	4.33	<u>3.00</u>	2.00	3.19
	Diff.	0.00	1.00	0.25	0.00	0.00	0.67	0.33

Remark: the highest scores are underlined

Table 6-29 Summary of external factors' rating by regulator and airlines

For the overall average scores of these eight key change categories, 'market' 'competition', and 'regulation/policy' categories have the highest score of both impact and effort rating. All categories have higher impact rating than effort rating scores, which means all airline strategic planner need to put more effort to analyse all categories, especially for the category having the highest difference of impact-effort scores. For this questionnaire survey, 'technology', 'distribution', and 'cooperation' category have the highest difference of impact-effort scores. Therefore, the airline strategic planner needs to put more effort on analysing these three key drivers.

6.6.4 Section Conclusions

Results from the questionnaire survey provide more understanding toward key change drivers' impact/importance from perceptions of airline executives and industry experts. Table 6-30 shows all average scores and ranks of each key change category from questionnaire survey's Part II and III. The essential difference between questions in Part II and III is that questions in Part II refer to each single key change driver in real action, not just naming the category in general as questions do in Part III. By this questionnaire design technique, the difference of airline strategic planners' perceptions

toward the specific key change driver in real action and general key change driver named by its category could be observed.

Comparing the rated scores and ranks of particular category in Part II-Impact and Part III-Impact, there are two significant findings emerged. Firstly, the category having high scores in Part III-Impact usually has the greater difference between Part II-Impact scores and Part III-Impact scores. In contrast, the category having low scores in Part III-Impact usually has fewer differences between Part II-Impact scores and Part III-Impact score. This could be interpreted that the strategic planners may overvalue the high important factors when they are in broad category form, while undervalue those having low impact level. Secondly, considering the different ranks of infrastructure/resource and broad categories from Part II-Impact rating and Part III-Impact rating as an example, key change driver in broad category form has the significantly lower rank than key change driver in specific and real action form. This could be explained that the key driver in action, as being used in Part II-Impact questions, provides more insight of criticality/impact/important level of particular driver than key factor in general category form as being applied in Part III-Impact questions, therefore, the airline strategic planner posts them at relatively higher rank.

Category	Part II-Impact	Rank	Part III-Impact	Rank	Part III-Effort	Rank	Im.-Ef. Diff.	Rank
Competition	3.74	3	4.43	2	3.95	2	0.48	4
Market	3.91	1	4.67	1	4.19	1	0.48	4
Technology	3.32	8	3.90	6	3.14	8	0.76	1
Regulation/Policy	3.91	2	4.29	3	3.86	3	0.43	6
Cooperation	3.41	7	3.95	5	3.38	5	0.57	3
Distribution	3.59	6	4.00	4	3.38	5	0.62	2
Infrastructure/Resources	3.70	4	3.81	7	3.48	4	0.33	7
Broad	3.64	5	3.52	8	3.19	7	0.33	7

Table 6-30 Summary of questionnaire survey's results

In summary, findings of each factor's impact level from different kind of questions have some limited common output. 'market', 'competition' and 'regulation/policy' are always rated as the highest impact factors affecting changes within the business environment; 'cooperation', 'distribution', and 'technology' categories have slightly different ranks across three measures; 'infrastructure/resource' and 'broad' categories have the most various ranks across the measures. The results provide initial conclusions that the airline strategic planner need to put more effort on

analysing all eight key change drivers, especially for the factors having low impact levels like 'technology', 'distribution' and cooperation'. In addition, the strategic planner is deemed to overestimate the factors having high impact level and underestimate the factors having low impact level. Finally, the key change drivers presented in specific and real action form could provide better insights of particular drivers' impact/important/criticality level for the strategic planner's evaluation than the factors which are presented in general and broad category form.

6.7 General Conclusions

As mentioned at the beginning part of the chapter, this second research module (RM2) aims to discover underlying change drivers and emerged changes and to understand, in-depth, the phenomena of airline business market in Thailand. The research is designed by using single-embedded case study with mixed methods as a research methodology and separated into two main research sub-modules, RM 2-1 and RM 2-2. The RM 2-1 is designed to explore emerged changes as market phenomena and key change drivers in the market. The first fours parts (section 6.1, 6.2, 6.3, and 6.4) of the chapter are the first sub-tasks of RM 2-1 aiming to present the key changes and market phenomena emerging in the country's airline market during 2001-2008. The research method is a documents review and applying descriptive analysis technique to analyse 'Industry Structure and Characteristics', Industry Competition' and 'Intra-industry'. The findings show many significant changes in traffic growth, route network pattern, number of operating airport, and strategic choices and maps of the airlines.

The second sub-tasks of RM 2-1 are illustrated in section 6.5. This research module employs different research method to find the key change drivers and their importance as expected answers. Five of aviation industry experts and eight of airlines' top executive are the research's units of analysis. The interview is selected as research method and using cognitive mapping analysis technique to analyse the interviews' recorded transcripts. Ten key change factors are extracted from the cognitive maps (sample of cognitive maps are shown in APPENDIX E). Three different types of measure (density, centrality, and tail occurrence) are used to examine particular change factors' impact/importance level. The results show that 'market', 'strategy',

'regulation/policy' and 'competition' have the highest level of overall impact/importance respectively, while; 'broad', 'regulation/policy', and 'infrastructure/resources' have the most significant impact as root causes initiating changes.

For the RM 2-2, questionnaire survey is applied as research method. Four of DCA's executives and 18 of airlines' executives are selected by each organisation's top executive to be questionnaire respondents. There are three types of measure to rate the impact and effort level toward each targeted factors. In this part, eight external factors are listed and rated. The research modules' findings are quite similar to the RM 2-1 as 'market', 'competition', and 'regulation/policy' factors are rated as having the highest impact to changes within the airline business environment in Thailand. In addition, this research module provides the measures of difference between the recognised impact level and the effort level put into the analysis of each particular factor. In practice, the people involving strategic planning should put more effort in analysing those eight factors, especially for the factor usually being perceived as being less important, such as, 'technology' factor. Additionally, the key change drivers presented in specific and real action form could provide better insights of their important/criticality level for impact evaluation in strategic planning processes.

Categories	RM 2-1				RM 2-2			Cross analysis	
	% Occ. Rank	Den. Rank	Cent. Rank	Tail Rank	Part II-Impact Rank	Part III-Impact Rank	Part III-Effort Rank	Avg. Rank	Rank
Broad	3	10	9	1	5	8	7	6.1	8
Competition	4	4	3	9	3	2	2	3.9	4
Cooperation	9	2	7	7	7	5	5	6.0	6
Distribution	8	5	4	10	6	4	5	6.0	6
Infrastructure/Resource	6	9	8	3	4	7	4	5.9	5
Internal	7	7	5	6	-	-	-	6.3	9
Market	1	1	1	8	1	1	1	2.0	1
Regulation/Policy	2	8	6	2	2	3	3	3.7	3
Strategy	4	3	2	4	-	-	-	3.3	2
Technology	10	6	10	5	8	6	8	7.6	10

Table 6-31 Summary of key change drivers' ranks from all measures and their cross analysis

Table 6-31 illustrates the summary of various ranks of each key change drivers from seven measures, each measure representing the particular properties of the driver. All categories achieve the top five ranks by at least one measure. This means each key

change driver has its own particular crucial properties. However, considering the cross analysis results in the table, the most generally important key change drivers are 'market', 'strategy', 'regulation/policy', 'competition', and 'infrastructure/resource'.

In conclusion, Chapter 6 provides many of useful findings which will be merged with the previous ones from Chapter 4 and 5. Then, all findings are analysed by 'constant comparative analysis' technique in Chapter 7 before the generalisation of key change drivers, emerged change and market phenomena and conceptualisation of new airline business environmental analysis are produced at the final stage.

7 Generalisation of Key Changes Drivers, Emerged Changes and Market Phenomena and Development of New Conceptualised Frameworks

Chapter 7 presents the works and results of research module 3 (RM 3), which aims to generalise key change drivers, emerged changes and market phenomena and new conceptualised models for airline business environment scanning/analysis. The findings of all previous research modules 1 and 2 (RM 1 and RM 2) are merged and analysed again with a different technique. Grounded theory is applied as a research methodology for this research module. The units of analysis are all outputs/findings from RM 1-1, RM 1-2, RM 2-1 and RM 2-2. Document Reviews are selected as data collection/research method. All data/findings are analysed by the 'constant comparative analysis' which is conceptualised and briefly described in term of four stages; (1) comparing incident applicable to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory.

The chapter consists of three main sections. The first section covers the generalisation of key change drivers, their emerged changes and phenomena as well as their new analysis conceptual frameworks. For each driver, four stages of constant comparative analysis technique are applied. The second section illustrates the development of new-invented airline business environment scanning/analysis conceptual framework. The last section discusses about the quality evaluation of the research findings.

7.1 Generalisation of Key Change Factors, Emerged Changes and Phenomena

In this part, all key change drivers, emerged changes and phenomena explored in the previous research works are analysed and generalised by these four stages as required by constant comparative method. The first stage is (1) to compare those incidents applicable to each category. The second stage is (2) to integrate those emerged categories and their properties. The third stage is (3) to delimit the theory into constructed matrix and/or generic diagram of those saturated theoretical categories/concepts and their properties. Lastly, the forth stage is (4) to provide the contents and descriptions behind the generalised results. There are eight key change drivers, as they are the final generalised list of key change drivers, are analysed within this topic. They are 'market', 'competition/Strategy', 'regulation/policy', 'infrastructure/resources', 'cooperation', 'distribution', 'technology', and 'broad' factors. However, according to the different level of each factor's criticality to the business environment and data availability, only the results of the fist three factors, which have the highest criticality, are structured into two parts presenting both the factor's generalised changes/phenomena and new environmental analysis conceptual framework, the results of the rest five factors are presented in the one single section outlining only the factor's changes and phenomena.

7.1.1 Generalised Eight Key Change Drivers

In this research, there are two research modules produce the exploration of key change drivers. Their results were illustrated in chapter 5, section 5.5 and chapter 6, section 6.5 and 6.6. In chapter 5, there are nine categories of key changes drivers emerged, whilst, ten categories were explored in chapter 6. These results are analysed by four stages of the constant comparative method to delimit the final list of key change drivers and their properties. Finally, There are eight key change driver were produced. Table 7-1 illustrates the three stages of exploring key changes drivers. The first and second columns represent the results from RM 1 (chapter 5) and RM 2 (chapter 6) respectively. Finally, in the third column, the 'strategy' category from RM 2 is merged

with competition category. The 'other' category from RM 1 and 'internal' category from RM 2 are removed because most of their factors are internal factors. However, relevant sub-factors within 'other' category from RM 1 are selected by the constant comparative method to be merged with competition/strategy category in the last column. The definitions and properties of all generalised eight categories are discussed as follows.

RM 1 : Analysed by Content Analysis	RM 2 : Analysed by Cognitive Mapping Analysis	RM 3 : Analysed by Constant Comparative Analysis
1. Broad	1. Broad	1. Broad
2. Competition	2. Competition	2. Competition/Strategy
3. Cooperation	3. Cooperation	3. Cooperation
4. Distribution	4. Distribution	4. Distribution
5. Infrastructure/Resource	5. Infrastructure/Resource	5. Infrastructure/Resource
6. Market	6. Internal	6. Market
7. Other	7. Market Other	7. Regulation/Policy
8. Regulation/Policy	8. Regulation/Policy	8. Technology
9. Technology	9. Strategy	
	10. Technology	

Table 7-1 Summary of key change drivers exploration in three research modules

7.1.1.1 Definitions of Key Change Drivers

From the constant comparative analysis, eight key change drivers are delimited. This following section provides their descriptions, which facilitate the understanding toward the scope and characteristics of each driver.

Competition/Strategy Driver: all factors about airlines' present and potential of the firm's moves and strategies in order to outperform and/or survive including their actions, decisions, plans, strength, and weaknesses, etc.

Market Driver: all factors about present and potential of customer's demand and airline's products/services supplied, for example; adding services, increasing demand, and changing ticket price, etc.

Technology Driver: all factors about present and potential of products and/or process technologies that affect airline business. For example, new aircraft engine

technology, onboard Wi-Fi technology, and integrated airline business solutions software.

Regulation/Policy Driver: all factors about present and potential of regulations and/or policies that affect the airline business. For example, new implemented pricing regulation, relaxing of ownerships and control rules, liberalisation policy, and new ASA signed.

Cooperation Driver: all factors about present and potential of cooperative actions of and/or among any parties within and/or beyond the airline industry. For example, regional economic cooperation, operational cooperation among airlines, and package holiday promotion between airline and hotel.

Distribution Driver: all factors about present and potential of airline distribution channels. For example, new creation of distribution channel and executing direct distribution channel.

Infrastructures/Resources Driver: all factors about present and potential of infrastructure and resources required to facilitate and supply to airline in order to produce its products/services, for example, financial recourses, labour and raw-material markets, changing fuel price, increasing airport capability, and air navigation system enhancement.

Broad Driver: all factors about present and potential of external environment excluding from previous seven drivers and affect all parties within the industry, for example, demographic, socio-cultural, geopolitics, natural environment, economic and political trends.

7.1.1.2 Common Properties of Eight Key Change Drivers

The previous section already described the definition and scope of each key change driver. This section discusses the further results gained from the constant comparative analysis of key change driver exploration. Six common properties of all eight key change drivers as external business environments are derived to provide the

analytical framework for business environment analysis. The properties are presented as follows.

1) *Stability:* the stable environment is one that does not change much with the seasons and/or time period. In contrast, unstable environment creates wide range of changing conditions which results in forcing the airline to have broad tolerance limits to cope with the changes. A variety of factors can make an environment unstable, including unstable government, unexpected changes in customer demand or competitor supply, a rapidly changing technology or knowledge base, etc.

2) *Predictability:* in many aspects of changing business environment, though temporally unstable, are highly predictable in that they repeat themselves exactly from the same series of consequences. Such cyclical predictability allows the airline to evolve some degree of dependence on particular business environmental conditions. For example, fluctuating, but predictable, demand level during summer and winter period allows airline to effectively adjust its capacity to match with changing demand in these conditions.

3) *Complexity:* the complex environment requires the airline to have great deal of sophisticated knowledge about particular environmental conditions in order to cope with such complex situations. For example, complex behaviours of airline passengers require airline to put substantial efforts to understand the factor influencing their decisions and behavioural patterns.

4) *Diversity:* a number of different entities within the business environment create the diversified conditions. Structurally complex of environment obviously offer a greater variety of different entities than homogeneous environment does. For example, the liberalised regulation offers opportunity for new airline business models to be developed and stimulate new market demands.

5) *Vulnerability:* capability of being destructed or damaged by particular environmental conditions. It is indicated by consequences' impact level ranging from very vulnerable to neutral one. It could be influenced by, for example, the airline's relationships with unions, government, and other outside groups, competition as well as the availability of resources.

6) *Exploitability:* capability of being exploitable of particular environmental conditions. The highly exploitable environment offers greater opportunities for the airline to make use of such conditions. For example, the high competition on serving thick routes may leave the small routes unattended, thus, the small airline could exploit such opportunity.

7.1.2 Emerging Airline Market in ASEAN

From the studies, both in Thailand and other ASEAN countries, 'Market' factors are most frequently cited as underlying change drivers. In this research, the factors cover all about markets, such as; customers' need and behaviour; demand and supply; airline's product, price and promotion; excluding issues related to competition and distribution. During the review period, there are five underlying emerged changes related to the factors. They are changes in market size, airline business model, customer need and behaviour, route network, and price. In addition, two findings are emerged at the delimit theory stage. They are summarised as follows:

7.1.2.1 Emerged Changes/Phenomena and Their Properties

Increasing overall market size: in all ten ASEAN countries, both demand and supply sides of air traffic have been significantly increased over the review period. The number of airline players and their capacity have increased as well as passengers carried number. The growing number of airlines is the result of liberalisation, while, the increased number of passengers is affected by both lowering price and increasing consumer's buying power through economic growth and increasing middle class population. This could represent *expansibility* properties of the market. Apart from seasonality characteristic of air traffic demand which is predictable, they also experience cyclical growth pattern which is affected by broad, uncontrollable, factors such as the current economic situation, natural disasters, the political situation, terrorism and war. These phenomena could represent the properties of market's *stability and predictability*. In addition, considering the root cause of such growth, the

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liberalisation is mapped in the thematic and cognitive diagrams as tail concept (see 6.5.3) directly and indirectly affecting market growth.

Creation of New Airline Business Model: Low Cost Carrier (LCC) emergence is the second most frequently cited as influencing factor and the most frequently occurred tail concept in 'Market' category. LCCs' growth holds very high criticality to changes in other factors in the market, such as, ticket price, demand level, consumer behaviour, regulator and regulations, incumbent and competitive behaviour. Furthermore, especially in Thailand, the feeder airline is established to serve some small markets vacated by service suspension of incumbents. This phenomenon could represent the higher *diversity* level of the player in the market, providing various choices to the customers.

Changing customer's expectation: this change was rated as the second highest impact driver in the executives' survey. The change is classified as both root cause and consequence from changing airline' strategies. In the past, prior to the liberalisation period, there were limited choices of airline's products. Customers' direct accessibility to airline's product and price information also was impossible. The development of airline's online portal empowers the customer to be more in charge of making purchasing choices. This could signify the *dependability* property of customer's decision making. In addition, emergence of LCC induces new types of demand characteristic to be developed, such as 'price-conscious' and 'price and convenience-conscious' customers. NOK's director of marketing mentioned that there are many customers who switch their choices to airline offering lower prices. This could represent a *sensitivity* property to particular aspect of customer's need/expectation and the *switchability* property of customers' choices.

Reconfiguring route network: Interestingly, taking Thailand's market as a case study, the major-thick routes with more than 300,000 passengers per year have experienced a rapid traffic growth during the review period. In contrast, three small airports, which serve less than 50,000 passengers/year, were closed due to service suspensions by airlines operating bigger than 100-seat aircrafts. This could represent a *compatibility* property between size of operating airline and market. Moreover, a number of inter-region domestic routes (point-to-point services) have been increased as

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a more segmented target market for incumbent and regional operators, which try to develop new market and avoid high competition in thick routes.

Fluctuating Ticket price: There are two periods that record changes of ticket prices, LCC emergence and fuel price turmoil periods. In the LCC emergence period, the air ticket price was driven down by price war committed by all operators. In 2004, the LCCs firstly introduced below-average air fares to the market which led to high traffic volume gained. Then, the incumbent and other regional operators responded by lowering their fares to encounter such competition. For fuel price turmoil, the price started to rise from about 30 USD/Barrel in 2003 and reached almost 150 USD/barrel in July 2008. In 2005, Thai LCCs banded together to introduce fuel surcharge at 200 THB for domestic and 400 THB for international flights, which led to increasing net air fare and declining demand. This could represent customer's price *attainability* to afford particular air fares.

7.1.2.2 Generalised Airline Market's Phenomenon and Driven Forces

There are two main findings derived from these last two analytical stages. They are 'five types of market phenomenon' and 'market driven forces model'.

Five types of market phenomenon: The first result of this stage is the discovery of five market phenomena. The findings are emerged from in-depth case study in domestic market of Thailand and could be delimited as follows (See Figure 7-1)

1) <u>More Competition-Expanded Market:</u> This phenomenon occurs when the market experiences declining HHI and growing passenger numbers. The airport markets experiencing this phenomenon serve more than 100,000 passengers/year and has an HHI less than 8,500. There are 11 airports having such characteristics; 2 in Bangkok, 1 in the North, 5 in the Northeast, and 5 in the South. They are Bangkok-Donmuang International, Bangkok-Suvarnabhumi International, Chiang Mai International, Chiang

Rai International, Hatyai International, Krabi, Nokornsrithammarat, Phuket international, Suratthani, Udornthani, and Ubonratchathanee airports.

2) <u>More Competition-Contracted Market:</u> This phenomenon occurs when the market experiences rising HHI and declining passenger numbers. Maehongson airport is the one that experiences this phenomenon. It used to serve more than 200,000 passengers/year in 2001 but the number has been reduced to about 85,000 in 2008. Whereas, its HHI had declined from 10,000 in 2001 to 7,642 in 2007 before rose to 9,368 in 2008. The situation is caused by service suspension of incumbent and leaving the market for smaller operators.

3) <u>Few/No Competition-Expanded Market:</u> This phenomenon occurs when the market experiences rising or maximum HHI and growing passenger numbers. The airport market facing this phenomenon serves less than 100,000 passengers/year, except Samui and Khonkhan airports, and has average HHI more than 9,000. There are 8 airports having such characteristics; 2 in the east, 2 in the North, 1 in the Northeast, and 3 in the South. They are Khonkhan, Narathiwas, Pai, Samui, Sukhothai, Trang, Trat, U-Tapoa International airports.

4) <u>Few/No Competition-Contracted Market:</u> This phenomenon occurs when the market experiences rising or maximum HHI and declining passenger numbers. The airport market facing this phenomenon serves less than 50,000 passengers/year, except Lamphang and Phitsanulok airports, and has average HHI more than 9,000. There are 4 airports having such characteristics; 3 in the North, 4 in the Northeast, and 2 in the South. They are Burirum, Huahin, Lamphang, Nakhonphanom, Nan, Phitsanulok, Roiet, Ranong, Sakhonnakorn airports.

5) <u>Destructed Market:</u> This phenomenon occurs when the market experiences either rising or declining passenger number with few or no competition before is finally suspended services. The airport market facing this phenomenon serves less than 30,000 passengers/year and has average HHI more than 9,000. There are 7 airports having such characteristics; 3 in the North, 3 in the Northeast, and 1 in the South. They are Chumporn, Loei, Maesot, Nakhonratchasrima, Phrae, Phetchaboon, Surin airports.
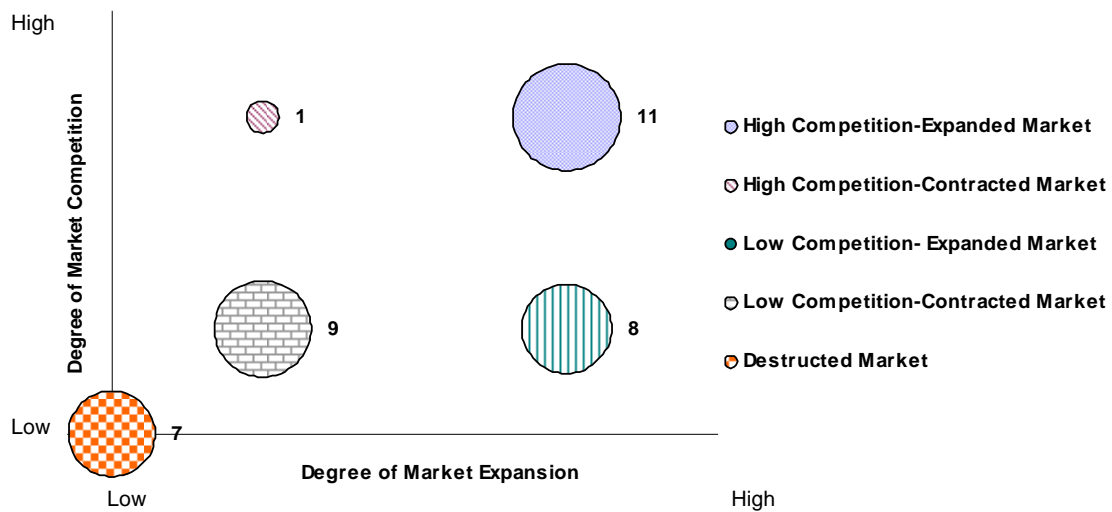
Figure 7-1 Five types of market phenomenon

Figure 7-1 shows these five types of market phenomenon. The vertical axis represents degree of market competition, which is defined by inversed proportional of HHI value. The horizontal axis indicates degree of market expansion, which is valued by the market growth rate. The size of and the number besides the bubble define the number of airport market that experiences particular phenomenon.

Discovery of Market Driven Forces Model: the results from RM 1 and RM 2 provide useful lists and interaction diagrams of change drivers. Those findings are analysed by the constant comparative method till arriving this final stage. The major modification of emerged categories and their properties are fewer. When the underlying uniformities of these categories and properties are discovered and no new dimensions of categories are indicated, the process could be stopped as it reaches the point of 'theoretical saturation'. Figure 7-2 illustrates the developed model of market driven forces. There are three main categories in the model; 'context', 'market growth', and 'potential obstacles'. Each particular category is attached with its underlying driven forces.

Context	Market Growth	Potential Obstacles
• Economic situation & growth • Political situation • Population growth, distribution and immigration • Air transport policy • Trade policy • Country/Local's tourism attractiveness • Natural Environment	• Airline capacity-Market size compatibility • Airline's supplies cost • Customer's expectation sensitivity and switchability • Airline operation performance • Price attainability • Product attractiveness	• Predatory pricing • Collusion behaviour • Unclear & unsystematic regulations • Infrastructure capacity limitation and high usage charges

Figure 7-2 Air Transport Market Driven Forces Model

For the context governing the market growth, there are seven key driven forces could affect changes of market growth. They are; economic situation and growth; political situation; population growth, distribution, and immigration; air transport policy; trade policy; country/local's tourism attractiveness; and natural environment. At the market level, six forces are defined as key driven forces to affect market growth. They are derived from three core market players; airline, customer, and suppliers. These six forces are airline capacity-market size compatibility, airline's supplies cost, customer's expectation sensitivity and switchability, airline operation performance, price attainability and product attractiveness. The last element is potential obstacles to market growth. Predatory pricing, collusion behaviour, unclear & unsystematic regulations and infrastructure's capacity limitation and high service charges are underlying forces decelerating market growth.

7.1.3 Evolving Airline Strategic Moves

The analysis of airline competition and strategy in ASEAN is produced in a four forms; list of key drivers related to competition and strategy factors, statistical analysis of HHI and market share, in-depth case study descriptive analysis, a thematic and cognitive diagrams. In addition, the questionnaire surveys were conducted to ask respondent rating impact and effort level regarding competitive factors which includes all about competition, competitor behaviour, strategies, plans, strength and weakness. In

this topic, first two stages of constant comparative method are performed in order to compare emerged categories and, then, integrate them and their properties. The emerged changes and phenomenon are summarised as follows.

7.1.3.1 Emerged Changes/Phenomenon and Their Properties

Increasing competitive environment: Air transport liberalisation and deregulation is a root cause of increasing numbers of airline players and the competition level as it is the emerged tail concept in most of thematic and cognitive maps. The level of competition seems to be positively related to *number of player*, *size of market* and *evolutionary time*. The growing market with the certain promising size that has been evolved for a longer period often has the higher level of competition from. In Thailand, all trunk routes with more than 300,000 passengers/year have been experienced such phenomena. In addition, in some countries such as Indonesia, the *hostility* of competition reached to the destructive level. Intense competition leads to airlines to spend less money on safety critical items. There were five hull losses of airline accidents in one single year. As a result, many airlines were grounded and finally the country was banned by EU and USA as performing sub-standard safety oversight system.

Expansion to new market: Liberalisation not only leads to higher competition in the airline's existing markets, but also provides significant opportunities for airlines to expand its business into *new geographical and segmented markets*. Many airlines have exploited such opportunities to expand their international presence and reach larger sales in new markets. Malaysia's AirAsia and Singapore's Tiger Airways and Singapore Airlines are examples of the airlines expanding to new geographical markets. Their expansions have been typically achieved through merger and acquisition (M&A) or by forming alliances with local operators. For another type of expansion, new segmented markets, all flag carriers of developed and developing ASEAN countries except Brunei have established their subsidiary LCCs to either share or stimulate new price-conscious market driven by low fare concept of LCC.

Turnaround strategies of ASEAN legacy airlines: Along the review period, all developed and developing ASEAN countries' flag carriers faced serious financial difficulties. Those difficulties had been adversely affected by many changing external factors such as 9/11 turmoil, Iraq War, the SARS and Avian Flu outbreak, Tsunami disaster, and fuel price crisis. The airlines adopted turnaround strategies with common series of actions; *eliminating, reducing, liquidating* and *rebuilding,* to cope with such difficulties. The airlines need to *eliminate* non-core business by outsourcing, excessive staff by lay-off and voluntary retirement, aircraft orders and some low marginal routes and *reduce* service capacity in many routes, number of operating aircraft and unnecessary cost. To gain sufficient cash flow, the airlines have to *liquidate* their business by raising cash from, for example, leasing back their aircrafts and selling their non-core asset like buildings. To *rebuild,* the airlines restructure organisational management system such as wage and operational system. By these reconstructed actions, the airlines would be more flexible, leaner and better to cope with unstable environment.

Emerged competitive behaviour: There are four emerged competitive behaviours of ASEAN airlines that could be observed. They are *cooperative, avoiding competition, fencing,* and *political binding behaviours*. The cooperative behaviour is mostly performed between airlines in product/service alliance like interline code sharing. The cooperative behaviour is extended to three other types of marketing mix; price, place, promotion alliance, for example; fixed rate of fuel surcharge, allied ticketing and joint sales, and tied-up sales promotions. For *avoiding competition* behaviour, an airline does market repositioning and/or development to avoid tense competition markets and shift its focus to new promising markets. *Fencing behaviour* is performed after creation of new market. An airline acquires or develops its own airport and operates monopolised service to/from that airline-owned airport market. The last emerged behaviour is *political binding*. AirAsia is very good example of airline performing such behaviour. When the airline intends to expand to new geographical market, it seeks to tie up with local enterprise which is connected to head of the state or high profile politician. This could help new airline being established faster and getting political support from ruling government.

Niche product specialisation: This emerged change is mostly created by small regional and feeder airline. In response to increasing competition, some airlines have to concentrate on what their competitive advantages are. This could help to ensure that a core market base is preserved and the revenues are maximised among these customers. In Thailand's case study, the markets where are mainly chosen for niche services are those airports serving less than 60,000 passengers annually and operated by small aircrafts. Obviously, the selected niche markets are all monopolised by the founding operators. The airline's local market knowledge and the compatibility between market size and airline capacity could commercially sustain the business.

Free and forced market exit: In more competitive environments, some airlines may face too intense competition or want to reposition their target markets and to exit some geographic or product markets. By *free market exit*, the airline freely exits the market because the market is not marginal one and/or not relevant to its specialisation strategy or repositioning targeted market anymore. On the other hand, for *forced market exit*, the airline may be forced to leave particular geographic or product market by its inability to response to competition.

7.1.3.2   Generalised Airline Strategic Behaviours and Changes

In this stage of analysis, one matrix and one model are discussed. The first discovered matrix illustrates different types of airline strategic behaviour and their particular properties. The latter model presents key concepts and their interrelationships regarding strategic/competitive changes in the market. The summary of both findings are outlined as follows:

Four types of competitive behaviour: From the recorded scripts and mapped diagrams, the processes of constant comparative method facilitate the discovery of airline competitive behaviour. There are four types of such behaviour. They are classified by two dimensions of properties, degree of aggressiveness as strategic moves and degree of consistency as strategy execution (See Figure 7-3). 'Degree of Aggressiveness' is defined by speed of moving and expansion, including the level of competition within the airline's targeted market. Whereas, 'degree of consistency' is

termed by the frequency of strategic changes and uniformity of executed strategies. The emerged behavioural categories and their properties are discussed as follows:
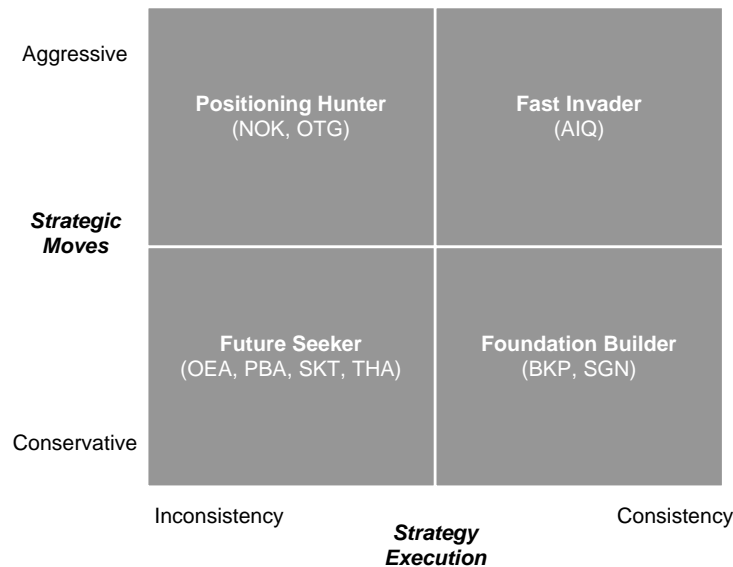

Figure 7-3 Four types of strategic behaviour of Thai airline operators

1) <u>Fast Invader:</u> This behaviour represents airline adopting consistent strategy execution and aggressive strategic moves. For Thailand's case study, Thai AirAsia(AIQ) is only one airline that could be categorised to this type. After the airline established its foothold in the market, it had expanded route network very fast by continuously adding 10 more domestic and international routes in only 5 years of its operation. In addition, its executed strategies are synchronised with the positioning and targeted market.

2) <u>Foundation Builder:</u> Airline adopting this behaviour concentrates on the markets where its competitive strength lies. It pursues series of strategy in accordance with its strategic goals which are not often changed. The airline expands its business not too fast and aims to avoid markets with high competitive environment. Bangkok Airways (BKP) and SGA Airlines (SGN) could be included in this category.

3) <u>Positioning Hunter:</u> By this behaviour, airline has put high ambition to win its competitors. But the operational results are not satisfied yet. The airline still needs to adjust its positioning and strategies. These results in

its aggressive moves but inconsistence strategies adopted. In Thailand, three airlines perform such behaviours. They are Nok Air (NOK) and One-Two-Go Airlines (OTG). The statistical evidences show that their number of serving route had been often changed. But all aim to compete in thick routes having high competition. Interestingly, most of them are still young airline with less than 5 years of operations.

4) <u>Future Seeker:</u> This type of behaviour has certain properties in two different dimensions, inconsistent strategy execution and conservative strategic moves. The airline perform this actions intends to preserve its existing market rather than make a fast forward moves, but also keep searching and adjusting its positioning and strategies. Four airlines in Thailand are identified that having this behavioural type. They are Orient Thai Airlines (OEA), PB Air (PBA), Sky Star Airways (SKT), and Thai Airways (THA). Considerably, most of them have been in the market for more than 10 years. Especially for THA, the national carrier, its long experiences and being the market leader may not assure its future. The statistical record shows inconsistency of its targeting and positioning. As being state-owned airline, this could be results from political interference, frequently affecting its planning and operating business.

Airline strategic changes model: Interactions among many competitive factors and related drivers in many thematic and cognitive diagrams are re-categorised and delimited till no new dimensions of categories indicated. At the point of 'theoretical saturation', the airline strategic changes model is emerged. There are six concepts in the model; competitive environment, market attractivity, strategic positioning, strategic evaluation, strategic choices, and strategic moves. Their definitions, key drivers, and interrelationships are summarised as follows (see Figure 7-4):

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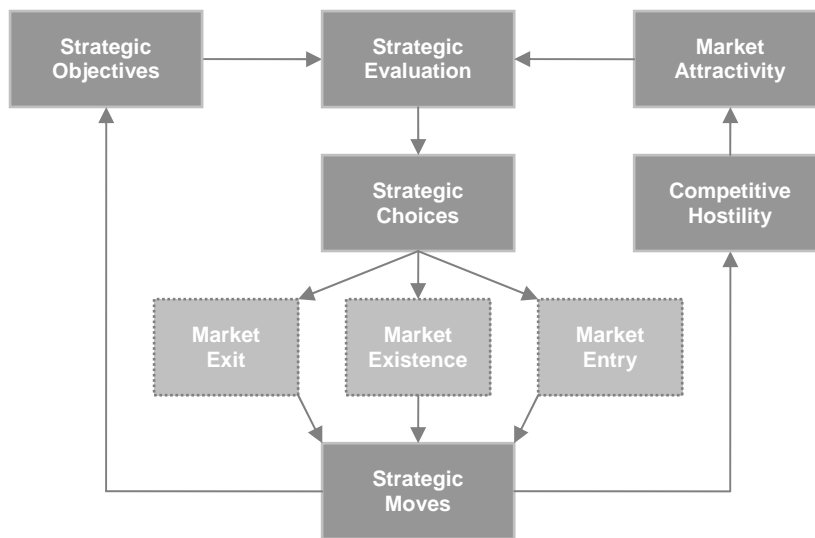
Figure 7-4 Airline strategic changes model

1) <u>Competitive hostility:</u> strategic moves, which are series of strategies adopted, of operating airlines is key factor driving the concept's changes. While market attractivity conversely affects the concept, higher competitive hostility could results in lower market attractivity. The observable indies that could represent high hostility level are listed as follows:

   - Price war
   - Low HHI
   - High number of player
   - Frequent market entry and exit
   - Low yield

2) <u>Market Attractivity:</u> the concept is partly influenced by competition hostility and directly affects the firm's strategic evaluation. The market attractivity level is also affected by other five factors. They are

   - Market size
   - Market growth
   - Market complexity
   - Market Diversity

- Yield attainability

3) <u>Strategic objectives:</u> the concept represents the firm's goals, what the firm wants to achieve within certain period of time. The strategic objectives could be re-adjusted after assessing the outcome of performed strategic moves. Furthermore, the concept directly shapes firm's strategic evaluation.

4) <u>Strategic evaluation:</u> After getting the output from strategic objectives and market attractivity. The concept refers to evaluation process which aim to answer that whether the market and its attractivity relevant to the firm's strategic objectives or not.

5) <u>Strategic choices:</u> Once the evaluation has been done, the decision toward either exit, exist or entry the market has to be made. In addition, strategies have to be formulated. The selected strategies are means leading to strategic objectives' achievement under particular market conditions.

6) <u>Strategic moves:</u> At this stage, the firm employs those chosen strategies in order to attain the firm's strategic objectives. The results from these actions could have an effect on either increase or decrease competition hostility in the market and either retain or redefine the strategic objectives of the firm.

7.1.4 Regulation and Regulatory Body in Transition

The regulation and policy factors are the second most frequently cited as key changes drivers by Thai airline executives and industry experts. In addition, the factors are found as the most important root causes of changes because of its highest occurrences as tail concepts in cognitive maps. In this part, the factors are analysed by the constant comparative method. The discovered changes/phenomena and delimited theories/models are summarises as follows

7.1.4.1 Emerged Changes/Phenomenon and Their Properties

Expanding liberalisation scheme with some restrictions: ASEAN Regional Corporation has set the agenda to implement full liberalisation of fifth freedom, or

beyond, rights for passenger services between capital cities into effect in December 2010. Before that time, ten ASEAN nations had been implementing different degrees of liberalisation with some restrictions. For example, Singapore and Malaysia both have highly liberal air services agreements with most of their international trading partners but between them they had long restricted on Singapore-Kuala Lumpur route by allowing only two national carriers Malaysia Airlines and Singapore Airlines to serve the route since 1980. Finally, early 2008, both countries' governments agreed in bilateral liberalisation initiatives and resulted in open up of the route. Indonesia is another example, the country government had adopted selectively protectionist air services policies. It barred Singapore-based low-cost carriers from serving its four main cities including the capital Jakarta and only agreed to allow low-cost players to serve Jakarta in the end of 2008. Laos and Vietnam are some of the others that have been - relatively slow to open their markets to allow more services by foreign airlines. Myanmar does also intend to boost its air transport market by allowing foreign investment but with restriction of a holding stake in new established airline by its state-owned carrier. Thailand's government had protected its flag carrier for many decades before starting gradual liberalisation scheme in 1994. These phenomena reflect the differences *level of protectionism* and *degree of liberalisation* of each ASEAN country's government.

Forming of sub-regional liberalisation: During the review period, the first sub-regional cooperation was initiated by CLMV groups. The group consists of four countries, Cambodia, Laos, Myanmar, and Vietnam. These countries are clarified as the least developed countries in the region. The countries have signed a multilateral air service agreement as an 'open-skies' accord in December 2003. The agreement replaces all bilateral air services agreement between the four countries and allows full fifth freedom rights between and beyond the countries without any capacity limitations. One year later in December 2004, Brunei, Singapore and Thailand agreed on full fifth freedom rights for freight flights and unlimited capacity for passenger flights between the three countries. Interestingly, Thailand and Singapore have the biggest air transport market in the region and their flag carriers, Thai Airways and Singapore airlines, are in the top list of world best performed carriers. Whereas, both Brunei and Singapore are very small countries and having no domestic market. The last sub-regional cooperation was formed by four ASEAN countries, Brunei, Indonesia, Malaysia and Philippines.

The agreement permits unlimited flights between 13 cities, 1 capital in Brunei, 4 non-capital in Indonesia, 4 non-capital in Malaysia, and 4 non-capital in Philippines. Although this agreement is not so-called 'open-skies' accord, it is expected to induce a lot of movements of tourists, traders and investors. These three incidents of formed cooperation have some common properties. Within cooperative group member countries, the majority countries have to *share the same interests and market conditions*. For example, CLMV countries have the same range of market size and potential of growth. They all have not strong operators and need to boost its market. Moreover, they are all located nest to each other in the same geographic area. As a result, these could be main motives of their common interests and market conditions.

Backfire of Liberalisation: there are many incidents indicating the pitfalls of liberalisation. Cambodia's government was blamed by the country's private operators as implementing *unsystematic regulations and unfair treatment* by favouring foreign-owned carrier. Furthermore, an *ineffective economic measure system* lead to too many airline established in the limited market size and, finally, results in market over capacity. In Brunei, the government had put effort to open up its air transport market and resulted in more new competitors entering to the market. The flag carrier had faced severe financial difficulties and short term shortage of aircraft and pilot resources. *Not well-prepared player* may lead to such incidents. Especially for Thailand case study, the in-depth and longitudinal statistical data shows significant discovery about markets left by carries' service suspension in small-route market, after the market liberalisation. *Too universal regulations* could lead to such phenomenon. The more customised regulations for different market segments conditions are needed. Lastly, *failure of safety oversight system* has been witnessed through the ban campaign of EU and US aviation authorities putting to Cambodia Indonesia, and Philippines. The obvious evidences supporting such decision are five hull losses of airline accidents in one single year in Indonesia.

Different forms of political interferences: there are three types of political interferences discovered from the analysis. They are *supportive, protective and destructive interferences*. The supportive interferences are occurred when the government intends to help airline players to better perform or recover from the difficulties. The airlines could be supported by various forms, such as, financial subsidisation, changing regulation in favour of the airline or even forcing the airline to

find its own solutions without bailing out. The protective interferences are taken in order to shelter out the potential difficulties that may harm the targeted airlines. The examples of such actions are discrimination regulation and selective traffic right allotment. Lastly, the destructive interferences are the government actions performed through the hidden agenda of conflict of interests. Once allowing the political interests and/or corrupted intentions to interfere regulatory decisions toward market direction, the airline could be in high risk situation as it could not perform rationally and compete freely. For example, the state-owned airline could be destructively interfered by frequently changing the management, broad members and long-term business plan.

Transforming government roles: The constant comparative analysis leads to the discovery of different governmental roles in enhancing its air transport market. The first emerged role is investment *promoter*. For the country facing scarce financial resources or poor economy, its government seeks in-flow investment from foreign investor to propel the industry growth. Vietnamese government's actions are good example of this type by deregulating ownership regulations and partly privatising its flag carrier. The second and third roles are s*ponsor* and *catalyser* respectively. Acting like a *sponsor* means offering direct subsidy for the industry while *catalyser* offers an indirect one. The examples of these roles are performed by Malaysian government when it offer indirect subsidy through the airport promotional incentive programme and direct subsidy through turboprop service in remote areas. Lastly, in the strong economy country, the government aim to perform out flow investment. *Investor* is another role government performs in order to take part in new locally registered airline establishment and/or expand the investment in other countries. Singaporean government could be a good example performing such role. It has done a number of overseas investment in airline business through the investment arm holding company, Temasek, or directly through its flag carrier, Singapore Airlines.

7.1.4.2 Generalised Modes of Liberalisation

At these final stages of constant comparative analysis, there are three main discoveries, liberalisation classification, liberalisation matrix, and regulation/policy changes model. The classification clarifies two types of emerged liberalisation in the region. The liberalisation matrix illustrates four types of government intention

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constructed by the relationships of two liberalisation types. Lastly, the model of regulation/policy changes presents the key drivers and their interrelationships related to regulation/policy. All of the discoveries are discussed as follows.

Liberalisation Classification: within the Southeast Asia region, the liberalisation and deregulation scheme have been widely spread. Along the review period, two generalised types of liberalisation were found in the market. The first one is market liberalisation and another one is capital liberalisation. The details of their characteristics and expected outcomes are discussed below

1) Market Liberalisation: this type of liberalisation is defined as restriction removal of route operations, pricing, regulatory entry barrier, and other threats of airline operations. By this liberalisation type, the industry could become more competitive and efficient. Therefore, the airlines could serve their customers' needs with more segmented product, while, be forced to increase their competiveness. The main outcomes of this liberalisation are:

   - Operational efficiency- liberalisation produces higher competitive environment and provides more operational flexibility, therefore, these force airline to enhance its operational efficiency and result in cost reduction, on-time performance and lower price offered to the customer.
   - Effective resource allocation- without regulatory constrains and government interventions, airline is able to allocate their resources to particular operating unit rationally and effectively. This could improve product quality and customer satisfaction.
   - Product diversity- greater liberalisation provides incentive for airline or investor to develop the range of customised products. The customer could select the appropriate one from the various product choices offered.

2) Capital Liberalisation: This type of liberalisation is the scheme induced by globalisation forces and free trade paradigm. Capital

liberalisation is to remove or deregulate the ownership and controls regulations. By doing so, it could propel the growth in international trade and investment flows. The expected outcomes from liberalising the capital investment are

- Foreign investment attraction - allowing higher portion of holding airline's stakes could be vital incentives to attract foreign investor. Especially when the country facing scarce financial resources, such liberalisation could leverage cash flow and reduce the financial cost within the industry.

- Knowledge transfer - by merger and acquisition (M&A), franchising and/or joint investment, the foreign partners always bring in their knowledge and expertises. This could be opportunities for the local firms to be transferred those best practices to improve its productivity, product quality, customer satisfaction and strategic positioning.

- Economies of scope and scale exploitation- once the foreign firm tie up with the local one, the just transformed or new established firm could benefit from the wider-combined scale and scope of the firm's business in both previous and new markets. The airline could benefit from the lower average cost as wider range of products and increasing volume (economy of scope and scale respectively).

Liberalisation matrix: All ASEAN countries governments subsequently deregulate their market and capital rules to be more structure and relaxed. Ten different countries in the region have experienced different mixture between these two dimensions. The constructed matrix is the result from delimiting theory as a final analytical stage. The liberalisation matrix shows four types of government intention base on relationships between market and capital liberalisation. It is important to understand the different outcome between these two liberalisation dimensions. They could complement each other as well as create conflicts. The summary of these four type are outlined below (see Figure 7-5)

| | Highly Market Liberalisation | Open (only) skies (Brunei) | Intensive Liberalisation (Indonesia, Malaysia, Philippines, Singapore, Thailand) |

(The figure is a 2×2 matrix.)

Top-left cell: **Open (only) skies** (Brunei) — under *Highly Market Liberalisation*

Top-right cell: **Intensive Liberalisation** (Indonesia, Malaysia, Philippines, Singapore, Thailand)

Bottom-left cell: **State Control** (Laos) — under *No/Slightly Market Liberalisation*

Bottom-right cell: **Investment Stimulation** (Cambodia, Myanmar, Vietnam)

Horizontal axis: *No/Slightly Capital Liberalisation* | *Highly Capital Liberalisation*

Figure 7-5 Liberalisation Matrix

1) <u>Intensive Liberalisation</u>: this type of liberalisation allows both operational and financial flexibility. Majority of ASEAN countries have executed this action. They are Indonesia, Malaysia, Philippines, Singapore, and Thailand. All of them acquire the biggest air transport markets in the region.

2) <u>Investment Stimulation</u>: once the ownership constrains are relaxed without removing competition and operation restrictions, such effort could result in attracting foreign investment. The capital and knowledge in-flows could contribute to growth or recovery of the industry. Cambodia, Myanmar and Vietnam are ASEAN countries implementing such policy.

3) <u>Open (Only) Skies:</u> Market restrictions could be liberalised but still keep capital restrictions retained. The, so-called, open-skies air service agreement, whether bilateral or multilateral one, is the sample output of such policy. By this type of liberalisation, all airline operational constrains are removed to propel the industry's efficiency and competitive environment but the substantial ownership still remain and be controlled by the country interests. In ASEAN, Brunei is the only country implementing this policy.

4) State Control: this policy reflects the government intention that aims to control the whole industry in both market and capital elements. The government still relies on the principle that air carriers should be substantially owned and effectively controlled by nationals of the state in which the carrier is registered. In addition, the market is not ready to be opened for higher competitive environment. Laos is the ASEAN nation employing such policy.

Regulatory/Policy Changes Model: The significant finding about regulation/policy factors is in RM 2-1, when the factors were found as the most frequently cited root cause of the changes by airline executives and industry experts. The other broad factors also affect the regulation/policy changes as well. By the constant comparative method and previous analysis, the model is constructed by seven factors linked with three one-way and six two-way links. The model illustrates the key drivers making regulation/policy changed as well as its consequences. The descriptions for the model are summarised as follows (see Figure 7-6)
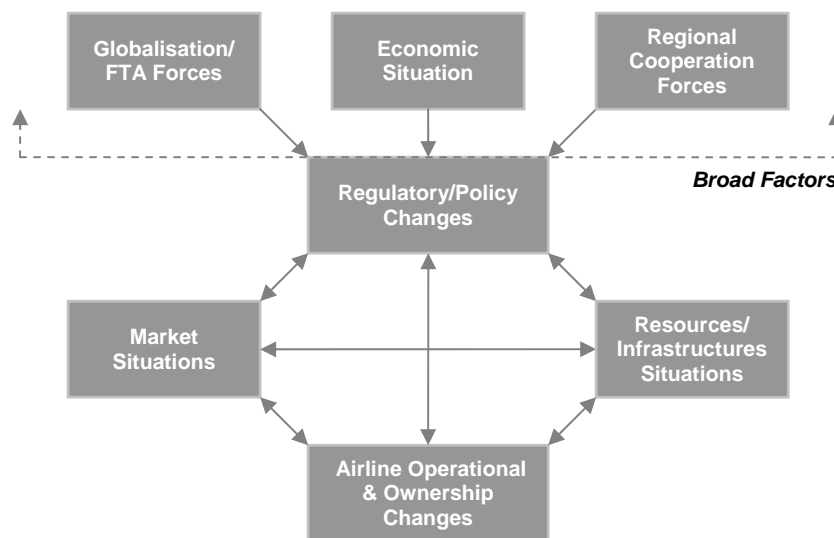
Figure 7-6 Regulatory/policy changes model

1) Broad Factors: there are three factors in this group, globalisation & free trade area (FTA) forces, economic situation, and regional cooperation forces. These three factors directly affect changes of

regulation & policy. The globalisation/FTA and regional cooperation forces induce the liberalisation effort of the country government, while, economic situation influences the government decision toward the liberalisation formula.

2) Regulatory/Policy Changes: there are two elements of air transport regulation/policy changes in this model. They are market and capital liberalisations. The country government could make choices of mixture formula between these two types of liberalisation which would results in changes of other three factors, airline operational and ownership changes, resources & infrastructures availability and market situations. Conversely, changes of these three factors also affect the government's decision to reshape its regulations and policies in order to facilitate the industry growth or isolate the potential problems.

3) Airline Operational and Ownership Changes: changes of regulation and policy substantially result in airline operational and ownership changes. The liberalisation of market and capital could enhance operational efficiency and bring in new knowledge and lower financial cost. The different outcomes of each liberalisation type are already discussed in the 'liberalisation classification' section. In addition, market conditions and resources & infrastructures availability are also key change drivers of the factor.

4) Resources & Infrastructures Situations: resources & infrastructures are all elements that airlines need to be able to produce its output. Scarcity of some resources and poor infrastructure could result in airline operational difficulties and customer demand decreases. Therefore, the availability of resources and infrastructures has an inter-affect with regulation & policy changes, resources & infrastructures availability, and market conditions factors. These following two factors are observable indies identifying resources & infrastructures situation:

- Resources availability, quality, and cost
- Infrastructures capacity, adaptability, and cost

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5) <u>Market Situations:</u> the factors itself are combination of market attractivity and competition hostility, which were already discussed in the airline strategic change model. Changes of the factors and other three factors are inter-related to each other. For example, market liberalisation could induce more choices of airline which is good for customers in the market. Such liberalisation also enables airline to lower its unit cost as well as ticket price, which, again, is good for the customer. Finally, the radical infrastructures improvement could be done to facilitate the expanding industry as the government's liberalisation campaign. These improved infrastructures, such as airport terminal, would result in more customer satisfaction and market growth.

7.1.5 Resources and Infrastructures Changes

Although resources and infrastructures are scored as the low significant factor by density and centrality analysis, the executives & experts survey and tail analysis indicate the factors having moderate level of significant. Resources supplied and infrastructures provided, as root factors, play a remarkable role in either enhancing or decelerating the industry growth. There are two separate issued needs to be considered, resources and infrastructures. The differences between these two elements are that there are very limited choices of infrastructure providers comparing to those of resources suppliers. In addition, any changes that happen to the infrastructure could produce nearly same results to all airline operators. The constant comparative method facilitates the construction of these following categories and their properties.

Resources supplied to airline: regarding the findings form RM 1 and RM 2, three categories of resources influencing changes are discovered. They are operational, financial, and human resources. Theses mentioned resources in this research are external resources only. The airline needs them to be supplied in order to produce its goods and services. The *operational resources* are needed for routine operations such as aircraft, fuel, and technical service providers. The *financial resources* are those capital needed to fuel all supplies purchasing, workforce and other bills payment. Lastly, the

human resources are most critical to changes in the research are pilot for certain aircraft types and competent management. Three properties that should be considered about the resources are their *availability, quality,* and *cost*. The availability of certain types of aircrafts and their pilots, the quality of management, and cost of fuel are referred as significant change drivers within the environment.

Infrastructure provided to airline: most airline infrastructure is provided by only one or a limited number of operators. The *ground infrastructures* are provided by airport operator, while, *air infrastructures* are served by air navigation service (ANS) providers. The properties of these two infrastructures are cited as most significantly influencing changes within the airline business environment are *capacity*, *adaptability*, and *cost*. The capacity of airport and airways, the adaptability of both infrastructures providers during the industry's difficult time, and cost of both infrastructures usages are cited as underlying drivers affecting airline business environment changes.

7.1.6 Emerging Cooperative Patterns

The cooperation factors have the lowest scores of occurrences and centrality but the second highest density scores and the thirds highest different scores between impact and effort. These mean the factors have high immediate influence and be often underestimated. Regarding the analysis at this final stage, six categories of cooperative patterns emerge. They are policy, service, pricing, investment, promotion, and sale cooperation. Table 7-2 exhibits these six types of cooperation and their properties clarified in three dimensions, key driver, expected outcomes and key players.

Cooperation types	Key drivers	Expected Outcomes	Key Players
Policy Cooperation	- Globalisation - FTA regime - Regional cooperation	- Industry growth - Solve industry's problems	Government--Government
Service Cooperation	- Limited resources - Network expansion - Increase revenue - Brand building	- Higher market share - Higher income - Higher brand recognition - Higher efficiency	Airline-Airline
Pricing Cooperation	- High supplies cost - Demand decrease - High competition	- Higher yield - Reduce lost	Airline-Airline

Cooperation types	Key drivers	Expected Outcomes	Key Players
Investment Cooperation	- Limited resources - Business expansion - Knowledge transfer - Brand building	- Higher revenue - Higher efficiency - Lower financial cost - Risk reduction	Airline-Airline/Investors/Business Partner
Promotion Cooperation	- High competition - Brand building	- Higher sale volume - Higher market share - Higher brand recognition	Airline-Airline/Business Partner
Sales Cooperation	- Increase revenue - High competition	- Higher sale volume	Airline-Airline

Table 7-2 Cooperation types, their key drivers and expected outcomes

Policy cooperation: is an effort that government executes to propel growth or solve problems of its air transport industry. Globalisation, FTA regime, and regional cooperation are indentified as key driver influencing such action. The example of this type is The Association of Southeast Asian Nations' air services liberalisation programme. Ten ASEAN nations are participating and set a remarkable milestone for full liberalisation of fifth freedom, or beyond, rights for passenger services between capital cities in December 2010.

Service Cooperation: this type of cooperation is the action taken by two or more airlines. The airline engages this action when it needs to expand networks, increase revenue, and build up its brand and have limited resources. The expected results from such actions are to gain higher market share, income, brand recognition, and efficiency. Most recognisable example of this cooperative forms are airline codesharing and strategic alliances.

Pricing Cooperation: is done when an airline facing high supplies cost, demand decrease and high competition and it expects higher yields and/or reduced lost. Regarding Thailand case study, LCCs had packed together to fix fuel surcharge as a result of high fuel price crisis. However, this kind of action could be classified as anti-competitive behaviour. Fortunately for the airlines, there is no such anti trust regulation in the country yet.

Investment Cooperation: when an airline needs to expand its business and build its brand, it requires investment cooperations. The benefits of this type of cooperation

are to gain higher income and efficiency, lower financial cost, and risk reduction. Normally, airline performs this action by joining cooperation with other airlines, investors, or business partners. The practical forms of this cooperation are, such as, joint-investment, franchising, and merger & acquisition (M&A).

Promotion Cooperation: airline agrees to carry a promotion for another airline and/or business partners. For example, when an airline teams up with hotel and car rental companies to offer holiday packages. The key drivers initiating this type of cooperation are high competition and brand building. The expected outcomes from this action are to get higher sale volume, market share, and brand recognition.

Sales Cooperation: this form of cooperation is employed when an airline is in a high competitive environments and needs to increase its revenue. The only one expected result from this action is to gain higher sale volume. For instance, 'A' airline joins its ticket sale with 'B' airline through 'B' airline's online website or ticket office as pooling sale.

7.1.7 Creation of New Airline Distribution Channels

Regarding RM 1 and RM 2, distribution factors are posted on the nearly last positions in almost all analysis, except the density and centrality analysis and rating impact level of the category by executives, which the factors are evaluated to have the moderate significant level as key change drivers. Generally, there are two types of distribution channel for the firm's goods and service. They are direct and indirect ones. Conventionally, an airline distributes its seats directly through its website, call centre, corporate intranet, and ticket offices. For indirect channel, airline's seats are sold through global distribution system (GDS). During the research review period, a number of new distribution channels were developed. All of them still base on direct channel of airline distribution system but provide more convince for customer payment through these invented channels, mobile phone, Bank's ATM and services counter, post office, modern convenience store's services counter.
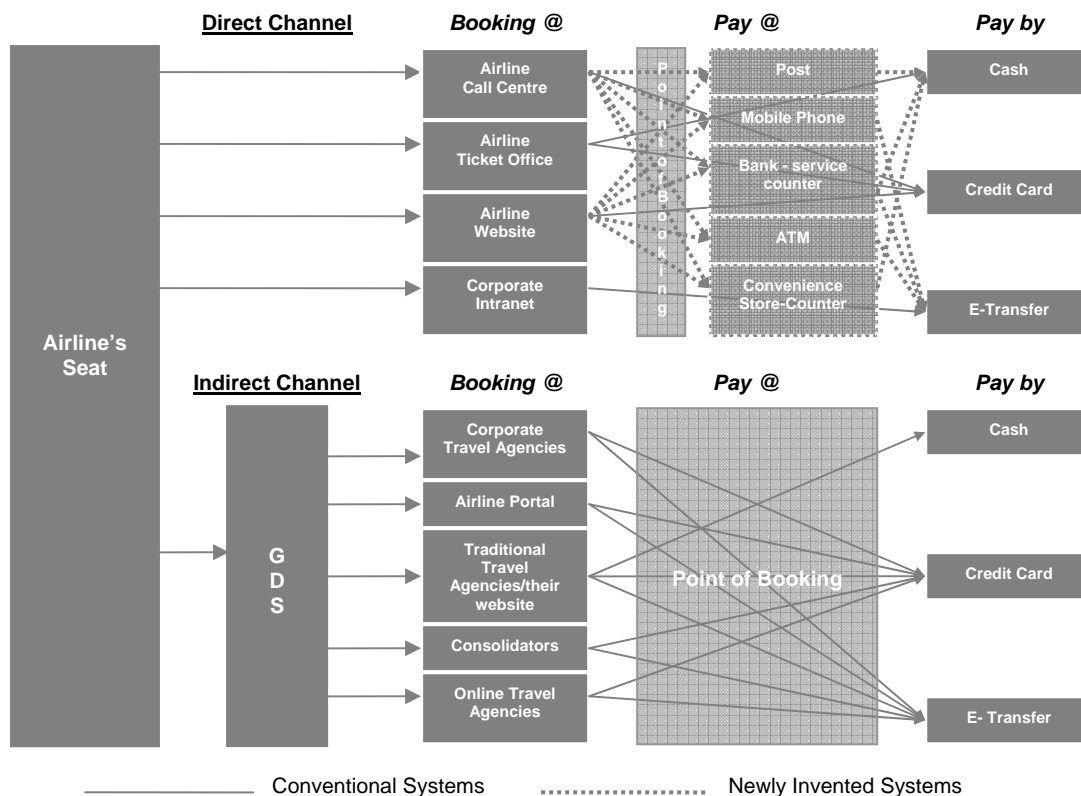
Figure 7-7 Airline Distribution Channels System

Figure 7-7 shows the summary of airline distribution system. For the conventional systems, there are few channel deigned to support 'pay by cash'. Although in ASEAN countries, the penetration of credit card and electronic money transfer (e-transfer) has been growing, cash payment is still preferred by ordinary people. Therefore, the new distribution systems are developed by LCCs in order to facilitate and simplify the booking and payment processes for its mass-consumer market and to best utilise its direct distribution channels. All of new invented systems are designed to support cash and e-transfer payments by adding new payment points. All payment points of the new systems can be easily accessed, such as ATM, post office, bank's local branch and modern convenience store. However, booking processes still needs to be done on the conventional airline booking platforms.

7.1.8 Implications of Technology for Airline

Technology factors are recognised as one of the most dramatic forces shaping the modern business world. For airline business as a service industry, technology factors could help the firm to simply its complex operation systems as well as to deliver the better value to its customers. Though technology factors are cited as nearly lowest important change drivers, they still gain moderate level of importance in density analysis and are the most underestimated factors. All findings from previous research modules are analysed at this stage and, finally, the saturated categories with their properties are emerged. The final results provide significant implications of the factors in three aspects. They are technology advancement, efficiency, and suitability.

Technology Advancement: is defined by the technology capability that outperforms the average typical one in the current market. For airline business, the advancement of technology could be exploited in order to elevate the firm's competitive advantages through its value chain enhancement. For example, In-Flight Entertainment (IFE) and On-broad Wi-Fi could add more values for airline passenger; and airline business solutions could simplify airline operations, manage costs, and maximise revenue.

Technology Efficiency: the airline could improve its cost structure by employing efficient technology. Efficiency could help the firm to product at least the same quantity of product/service but with the less cost. In this research, the aircraft efficiency in term of fuel consumption was most frequently cited as critical drivers.

Technology Suitability: not all technology could advance various business models and sizes of airlines. The only suitable one could benefit particular business scope and scale. According to the research documentary review, many regional airlines in ASEAN gain benefits from acquiring small regional aircraft. Some certain types of regional aircraft are able to take-off and land on very short runway. Therefore, small airport could be served by airline operating such suitable aircraft only. This is vital entry barrier defending such niche markets for the airline.

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7.1.9 Broad Factors Classifications

The definitions of broad factors are given in chapter 2. They are all factors related to demographic, social, natural environment, economic and politic. The factors are considered as less important drivers in term of density and centrality. Tail analysis results indicate the factors have high impact level as root causes of changes in airline business environment. Regarding the document review, content analysis, thematic and cognitive mapping analysis, 10 factors under broad category have emerged. In addition, the constant comparative method has led to the discovery of three categories within the factors that could benefit airline strategic planning. They are manageable, unmanageable, and exploitable properties. (See Table 7-3)

Broad Factors	Manageable	Unmanageable	Exploitable
Currency	✔		✔
Economic Situation	✔		✔
Political Situation		✔	✔
Socio-cultural Situation		✔	✔
War		✔	✔
Terrorism		✔	✔
Outbreak		✔	
Natural Disaster		✔	
Natural Resources			✔
Geographic			✔

Table 7-3 Classifications and properties of broad factors

Manageable Factors: refers to those external-uncontrollable factors whose direct impact to airline could be managed by the airline. The factors are currency and economic situation. The example of the factor is managed by airline is that airline could manage its various currencies revenue by tie up with more stable currency.

Unmanageable Factors: these are political situation, social-cultural, war, terrorism, outbreak, and natural disaster. When these factors active, whether their consequences are positive or negative to airline business, the airline could not manage their direct impacts to airline.

Exploitable Factors: are the external factors and/or their consequences that could be made useful. For example, when Indonesia's Bali Island were attacked by terrorist, Thailand and its carriers could benefit from frightening travellers who want to change the destination from Bali to other country's tourist popular places. The broad factors that could be exploitable are currency; economic, political, and socio-cultural situations; war; terrorism; geographic; and natural resources.

7.2 Development of New Conceptualised Airline Business Environmental Analysis Models

After synthesising all data, findings, and delimited theories in all previous parts, the common characteristics of all key change drivers and rooms for further improvement of business environmental analysis tools can be specified. These characteristics are the frameworks for conceptualising new-invented airline business environmental analysis models. This topic illustrates results of such works. It covers the last five achievements of the whole research works. They are discovery of mutual characteristics, new perspectives of business environmental levels, inter-factors evolutionary analysis matrix, multi-angles coevolutionary analysis matrix, and discussion of model's advantage and disadvantage.

7.2.1 Discovery of Mutual Characteristics

According to all data and findings of previous research modules, the long list of change drivers are reduced to eight key change drivers, which are external factors only. They are competition, market, regulation/policy, cooperation, infrastructures/resources, distribution, technology, and broad factors. At this stage of analysis by constant comparative method, the number of repeated categories and properties of these external factors are discovered. They are summarised as follows

Interconnectivity of the Factors: from many thematic and cognitive mapping diagrams, there are obvious evidences showing that each concept/factor in the diagram

does not have only one pair of relationships. This means that, for example, changes of competition factors could affect not only market factors, but also regulation/policy, infrastructures/resources, cooperation factors. This kind of interconnectivity properties of emerged key changes drivers provides the significant implications for constructing new environmental analysis tools.

Different Angles and Levels of Impact: though all drivers contain interconnectivity properties, they produce certain different angles and levels of impact to airline business as well. The centrality analysis provides data to justify different tiers of factors having different criticality level to change. For the angles of impact, there are two angles in total. They are directional angle (negative, neutral and positive effects) and influential angle (mutual and specific effects). These two types of angle are applied to analyse the interaction among various factors.

Longitudinal Characteristic: apart from the above two properties, the longitudinal characteristic is the last emerged properties of all factors. Longitudinal here concerns with change of the factors over time. This provides implications for analyser to consider not only the foresight of the factors when doing environmental scanning, but also their hindsight in order to gain more effective outputs for strategic planning. Whatever happened in the past could infer the future.

Blind Spot in Environmental Scanning: the results of rating differences between impact and effort from executive and expert survey provide remarkable evidence to support that there is blind spot in environmental analysis process, especially for the factor that seem to gain less perceived importance. The greater differences, the factor is more underestimated. In addition, the differences between average scores of the same factors in Part II and III represent the different perceived impact level, which the respondents have, between the factor in action and in general form. Therefore, the more effective analytical tool should have capability to allow the analyser seeing the interactive scenes of and among factors they are dealing with, rather than just analysing the broad view of the factors in general as being found from the conventional environmental scanning tools.

7.2.2 New Perspectives of Business Environmental Levels

As mentioned in Chapter 2-topic 2.5.1 and 2.5.2, there are two traditional perspectives of classifying business environment. They are conventional and ecological types. The conventional one views business environment as consisting of two categories, common/macro/general environment and specific/micro/task environment. The ecological perspective defines business environment as ecosystem that crosses a variety of industry. The latter view extends number of underlying factors by including those are beyond the industry supply chain, for instance, the suppliers of the industry's suppliers, customer of the industry's customer and other stakeholders such as investors, owners, and labour union. Although, the ecological view offer a more holistic angle, massive extended factors may decline the effectiveness of the analysis.

Given the eight external factors and combining with the common properties and rooms for further development discussed in the previous section as main framework, three levels of airline business environment are developed. They are primary, secondary, and territory levels. Two properties discovered in the latter stage are applied as criterions for classifying these levels. They are differences of impact angles and level among various factors. These three different levels are ordered by the level of criticality, the factors in primary level have the lowest criticality while those in territory level have the most criticality. Another criterion is influential angle, the factors in primary and secondary levels mutually affect all airlines in the same market with the same results. In contrast, any changes of factors in territory level specifically results in different consequences to each others. Therefore, the proposed first two levels are named as 'primary' and 'secondary' to represent the shared properties and their order to make them easier to be remembered. Whereas, the last level is named 'territory' to reflect its actual environment as everyone need to survive. (See Figure 7-8)
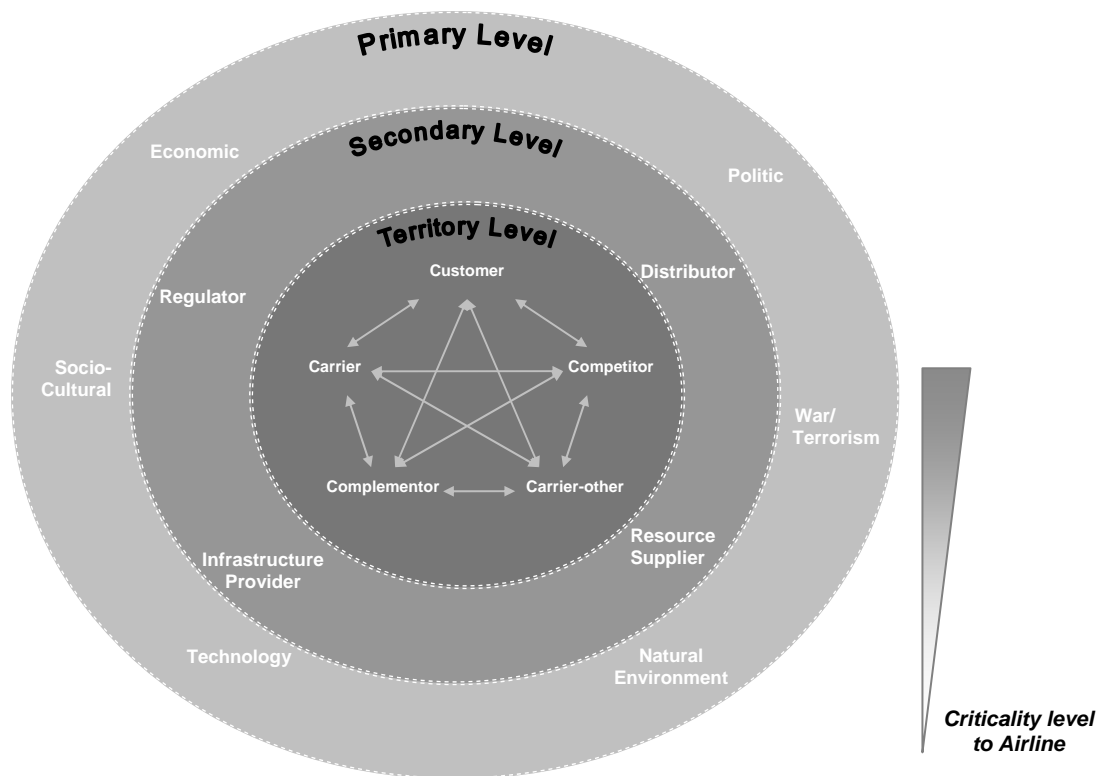
Figure 7-8 Airline business environment levels

Primary Level: at this level, there is no big difference from the conventional view in term of relevant factors. The only one factor added in is 'war and terrorism' factors which are frequently cited in reviewed documents. The changes of these six factors certainly result in changes of all factors in both secondary and territory levels. These factors are mostly root causes of changes in the environment, but their criticality is not high.

Secondary Level: the factors in this level are airlines' regulator, distributor, resource supplier, and infrastructure provider. These four parties have moderate level of criticality to airline business, except regulator that has high criticality level. Any changes of the factors mutually affect any airlines' changes at the same direct results.

Territory Level: there are five factors in this level. They are customer, including the subject's, competitors' and other carriers' customers; the subject's carrier; competitor, including both direct and substitute competitors; complementor; and other carrier. All parties directly and indirectly interact with each others. All of them share the same ultimate objectives which are to sustainably grow and survive in the territory.

All factors have high level of criticality affecting each others as well as all factors in other two levels

By these new perspectives of airline business environmental levels, the airline planner could perform more integral and focused analysis, especially at the territory level. The new model allows airline planner to investigate interrelationships not only between three levels of the environment, but also the in-depth interactions within them. Another underlying point making this model distinguishes from the conventional and ecological ones is that it offers the multi-directional angles to analyse interactions between factors in three ways; positive, neutral, and negative ones. Particularly for the neutral direction, the airline planner could discover either future potential opportunities or threats form such neutral interactions, even though they have no negative or positive effects at the present. These could help the airline to be well prepared for the future scenarios.

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7.2.3 Inter-Factors Evolutionary Analysis Matrix

The second new developed environmental analysis tool is this 'inter-factors analysis framework'. The tool is designed to facilitate the analysis of interactions between the considering factors. Regarding the explored mutual characteristics, shared interconnectivity, longitudinal properties and blind spot in scanning business environment among all key changes drivers are synthesised to construct the new analytical tool. The design exploits matrix's characteristics that allowing multiple analysis of cross interaction as to exploit those properties and avoid such blind spot. The matrix consists of columns and rows filling their heading with same order of considering factors. The elements make up the matrix are those results from the interaction analysis between each pair of column and row. Figure 7-9 shows the framework of the analysis (A) and analysis example (B).

Table (A):

	F_1	F_2	F_3
F_1	$I_{1\text{-}1}$	$I_{1\text{-}2}$	$I_{1\text{-}3}$ →b
F_2	$I_{2\text{-}1}$ →c	$I_{2\text{-}2}$	$I_{2\text{-}3}$ →d
F_3	$I_{3\text{-}1}$	$I_{3\text{-}2}$ →e	$I_{3\text{-}3}$ →a

Phase I: Analyse Past-Present; start at 'a' then 'b','c','d','e'
Phase II: Analyse Future Trend; start at 'b' then 'c','d', 'e', 'a'

Table (B):

	Competitor (Com)	Customer (Cus)	Carrier (Car)
Competitor (Com)	*Past/Trend* Com-Com1, Com-Com2, ,...	*Past/Trend* Com-Cus1, Com-Cus2, ...	*Past/Trend* Com-Car1, Com-Car2, ...
Customer (Cus)	*Past/Trend* Cus-Com1, Cus-Com2, ...	*Past/Trend* Cus-Cus1, Cus-Cus2, ...	*Past/Trend* Cus-Car1, Cus-Car, ...
Carrier (Car)	*Past/Trend* Car-Com1, Car-Com2, ...	*Past/Trend* Car-Cus1, Car-Cus2, ...	*Past/Trend* Car-Car1, Car-Car2, ...

Figure 7-9 Inter-factors evolutionary analysis framework

Regarding table (A) in Figure 7-9, the first phases is to analyse evolution of the factors (past to present). The first step needs to be done is to explore changes that have been emerged within each factor. Therefore, $I_{1\text{-}1}$, $I_{2\text{-}2}$, and $I_{3\text{-}3}$ are the first outputs of the matrix (a). Then, changes of factors in each row that have been affected by those factors in each column are analysed, starting from the first row to the last one (b-c-d-e). The second phase is to analyse future trends of the factors. Firstly, the future trends of the factors in each row would affected by those factors in each column have to be analysed (b-c-d-e). Then, $I_{1\text{-}1}$, $I_{2\text{-}2}$, and $I_{3\text{-}3}$ are the last groups need to be analysed to find their future trends (a). Like a puzzle, each piece of jigsaw tells certain stories about past and future trends of each factor-pair. All jigsaws complete the whole picture, providing in-depth understanding toward the past evolution and future scenario within airline business environment. Table (B) in Figure 7-9 shows the example of the analysis of selected three factors.

In addition, it is important that data or evidence indicating the existence of past evolution and future trends need to be recorded in order to continue monitoring and forecasting the trends' direction and evolution. After completing the matrix, airline planner could utilise those findings to continue further analysis. The planner could follow conventional way by using SWOT or other relevant planning tools or trying to follow next proposed tool.

7.2.4 Multi-Angles Coevolution Analysis Matrix

The third tool for analysing airline business environment is 'multi-angles analysis matrix'. The tool design, again, aims to exploit advantage of matrix characteristics. As mentioned in topic 7.2.1, the shared properties of different impact angles facilitate the design. Two main angles, directional and influential, are applied to the matrix construction. Three types of directional angle are used as the column heading, while, two types of influential angle are made up the matrix's row heading. Then, the outputs from inter-factors analysis are used to fill in each element of matrix that relevant to its properties. Furthermore, the matrix provides relative views enabling the different advantage analysis between carrier and its competitors. Therefore, at the final phase, the planner can formulate coevolution strategy to outperform its competitor by minimising its specific negative effects and maximising specific positive effects (see Figure 7-10).

		Positive Effect (+)	Neutral Effect (o)	Negative Effect (-)
Mutual Effect (M)		*Mutual-Positive*	*Mutual-Neutral*	*Mutual-Negative*
Specific Effect (S)	**Competitor**	*Specific-Positive (competitor)*	*Specific-Neutral (competitor)*	*Specific-Negative (competitor)*
	Carrier	*Specific-Positive (Carrier)*	*Specific-Neutral (Carrier)*	*Specific-Negative (Carrier)*

Figure 7-10 Multi-angles effects matrix

The tool is consisted of two phases of analysis as summarised in Figure 7-11. The first phase is to categorise all outputs from inter-factors analysis into nine elements as discussed in the previous paragraph. Each evolved change and trend needs to be filled in the relevant element to construct complete data for latter analysis by performing these following two procedures. Firstly, the decision has to be made is that how particular change/trend affects the environment, either mutually to every carriers or specifically to only the subject's carrier and competitor. Secondly, the next analysis is to identify the change/trend whether it effects the environment positively, negatively, or neutrally. The airline planner needs to repeat these two procedures for analysing every changes and trends.

The second phase is to perform relative advantage analysis and coevolution formulation. This procedure is designed to allow airline planner to compare competitive advantages of the airline and its competitors, which are constructed by external factors, not internal competitiveness of organisation as resource-based views. The analyses are performed through three directional angels of impact (positive, neutral, and negative impacts). Once the process completed, airline planner could translate the results about the airline's competitive advantage, more positive and less negative forces provide greater competitive advantage for the airline.

The last analysis of the second phase is to formulate coevolution through the airline's external parties within the environment. In order to outperform its competitor, the airline need to maximise its positive effects, minimise its negative effects and turn its neutral effect to the positive one by making use of those explored changes/trends. The airline could achieve so by initiating cooperation, co-improvement, and co-development activities with external parties, even with its competitors. By this strategy, the airline could gain benefits rather than make losses from its operating environment. In addition, this strategy should be synchronised with the airline's internal strength/competitiveness. For example, if the airline has strength in on time operation, the airline could initiate the on time performance monitoring project and propose the regulator to perform on-time performance benchmarking programme. Therefore, the airline could be the first mover and ready to be assessed with high potential to achieve the top rank.

			+	o	-
Phase I	M		Ex: Com-Cus1, Reg-Inf2, Dis-Cus1, Sup-Car3, ...	Ex: Sup-Tec2, Reg-Reg4...	Ex: Com-Cus2, Com-Com2, Car-Cus1, Inf-Car,2...
	S	Competitor	Ex: Com-Cus2, Com-Cus3, Dis-Com1,Com-Sup2, Com-Dis3...	Ex: Com-Com2, Com-Cus4,...	Ex: Com-Car1, Com-Car2, Com-Reg1,...
		Carrier	Ex: Car-Cus2, Car-Com1, Reg-Com2,...	Ex: Car-Reg1, Car-Sup2,..	Ex: Com-Cus2, Com-Cus3, Car-Cus4, Car-Sup3,...
Phase II	Relative Advantage Analysis		**Compare** Specific-Positive effects between Competitor vs Carrier	**Compare** Specific-Neutral effects between Competitor vs Carrier	**Compare** Specific-Negative effects between Competitor vs Carrier
	Coevolution Formulation		**Maximise** Specific-Positive effects of Carrier	**Turn Neutral to Positive** effects	**Minimise** Specific-Negative effects of Carrier

Figure 7-11 Multi-angles coevolutionary matrix: sample and instruction of analysis

In conclusion, the multi-angles coevolution analysis could assist airline planner to transform in-depth understanding toward market changes and trends into real actions through coevolution formulation. Deeper and more various data acquired, the analysis could be achieved more effectively. Furthermore, the planner can also integrate the results from this analysis with those results from other competition/industry/task environment analysis tools. Therefore, the airline's strategy formulation could be more effective by exploiting those multi dimension data and results.

7.2.5 Advantage Discussions of the Model

The new-invented airline business environmental analysis model consists of three main tools. Each tool has its own properties and processes of analysis. The model aims to provide effective analytical tools for the airline executives' insights as it is the key to be sustainable success in the business. The good insights of business environment can provide high-value decision support capability. This newly developed model is constructed by integration of extensive data and findings from three research modules. To clarify its uniqueness and advantage, therefore, this section is set out to illustrate the results.

Provide environmental insights for airline: new three levels of airline business environment (introduced in section 7.2.2); primary, secondary, and territory levels; offers the new perspectives toward airline industry structural analysis. Traditionally, two levels of business external environment, macro/general and micro/task/industrial levels, are applied as analytical framework. For example, the conventional framework (STEEP/PEST analysis) putting law/policy at macro environmental level does not particularly reflect the highly regulated characteristics of airline industry, which could result in underestimation of the factor's impact. Therefore, the new model is designed to provide the different properties of each environmental level and allocates particular airline-relevant key factor at the appropriate level defined by its criticality found in RM 2-1. This framework is certainly different from the conventional one and could effectively deliver better insights of the airline business environment.

More Customised and Integral Analytical Frameworks: conventionally, the analysis of micro/task/industrial environment usually employed the 'Porter's five forces industry analysis'. The tool contains some certain weaknesses, such as; excluding the importance of social and political factors within or impacting on each of the five forces; and allow to do factor-paired analysis between the firm and each of five factors only, therefore, the potential impact that may be derived from other paired factors' interaction, such as, competitor-supplier, would not be not revealed. In contrast, for this newly customised model, the new three environment levels locate the regulation/policy (regulator) at the same level as supplier and distributor to facilitate more customised and context-relevant analysis. Furthermore, the inter-factors evolutionary matrix allows user to do any factor-paired analysis across three environment levels, which could provide more holistic outputs.

Facilitate Better Conceptualisation and Enhance Misperceptions: for STEEP/PEST analysis, four-five factors are individually analysed to find their positive, negative and neutral impacts to the firm. However, using just the name of the factors, the airline executives may have difficulties in conceptualising or defining what the factor's definition and scope are, making it difficult to interpret the specific kinds of impact and invalid perceptions about the factor. Unlike STEEP/PEST, the newly developed tools, inter-factors and multi-angles matrixes, provide the practical and systematic guidance and lead to the interaction analysis of paired factors to map their impact's properties and scenarios, which could facilitate the better conceptualisation and avoid the misperceptions of each factor.

Broaden Exploration of the New Opportunity and Hidden Threat: the strategic planning tools, which are frequently used to analyse the business environment at the industry and competition levels as well as facilitating strategy formulation, are the 'Porter's competitor analysis' and the 'Porter's five forces industry analysis' tools. The principle logic of these tools as constantly referencing the firm's strategy/advantage to direct competitors and other three players could eventually blind the firm to the innovative approaches of potential new opportunities as well as threats from outside the very limited scope of analysis. The multi-angles coevolutionary matrix offers the effective technique defeating the limitations of Porter's models. The matrix allow to map both mutual and specific impact of various paired factors in three different kinds

(positive, neutral, and negative). Therefore, broader scanning views of potential threats and opportunities could be delivered. Furthermore, the matrix guides the user to perform relative advantage analysis which could facilitate the innovative approaches of creating relative advantage by exploiting explored opportunities and reducing threats through coevolutionary strategy.

7.3 Research Quality Assessment

As mentioned in Chapter 3, making assessment about the quality of qualitative research does not have to be the same way of judging the quantitative research. Qualitative research is both a 'scientific' as well as a 'creative' and 'artistic' effort, and that 'quality' of the final product/findings will reflect both these aspects (2002, Seale, 1999, Corbin and Strauss, 2008, Morse, 1999). Regarding the research's main conceptual framework, grounded theory is applied to construct the main research's and the last research module's design. Therefore, ten criteria for judging quality of grounded theory research, introduced by Corbin and Strauss (2008), are used to assure quality of the research. These ten criteria are 'fit', applicability', 'concepts', 'contextualisation of concepts', 'logic', 'depth', 'variation', 'creativity', 'sensitivity', and 'evidence of memos'.

This section provides the descriptions and evidences for research quality evaluation as self-assessments through these ten criteria. All works are summarised as follows:

1) *Fit*: the findings should resonate with the experience of both the professionals for whom the research was intended and the participants who took part in the study. Therefore, all findings are derived from the airline field study and especially from the industry relevant sources, such as top and middle executives, senior experts, air transport industry database and official statistics, to make sure that all collected data from these sources facilitate the analysis processed producing findings. The summary of each research modules' units of analysis are presented in Table 7-4.

| Research Module	Units of Analysis	Sources	% Sample
RM 1-1	Airlines and countries' news	Air transport Intelligent online database (ATI)	100 % of all relevant news, published from 2003-2008
RM 1-2	Block and files data recorded from RM 1-1, statistics, regional and industrial reports	RM 1-1, ATI, Euromonitor, ICAO Data, DCA, ASEAN Secretary website	100% of all block and files data recorded and all relevant documents and statistics selected by 'purposive sampling'
RM 2-1	Industry top executives and senior experts	6 country airlines, IATA, DCA	Participating airlines account for 96.34% share of all airlines' available seats/week
RM 2-2	Industry top-middle-low managements and senior experts	5 country airlines and DCA	Participating airlines account for 96.34% share of all airlines' available seats/week
RM 3	All data & findings	RM 1 and RM 2	100 % of all data and findings

Table 7-4 Summary of research data sources

2) *Applicability*: the findings should offer usefulness and new explanations or insights. They could be used to develop policy, change practice, and add to the knowledge base of a profession. As a result, at the final stages of the research in this chapter, a number of theories, emerged changes, market phenomena, models and matrixes are delimited and developed in applicable way. They provide the new way of explaining the business environment and also analysing them, such as new perspectives of airline business environmental levels. These outputs could be made use by both policy maker and airline planner. The developed models/matrixes and their applications and users summarized as follows (Table 7-5):

Models/Matrixes	Applications	Users
Five types of market phenomenon	To predict & describe consequences in the market during/after liberalisation	Policy maker and airline planner
Air Transport Market Driven Forces Model	To analyse & monitor market changes	Policy maker and airline planner
Four typs of airline strategic behaviour	To predict & describe airline strategic behaviours	Policy maker and airline planner
Airline strategic changes model	To analyse & monitor airline strategic changes	Policy maker and airline planner
Liberalisation Matrix	To predict & describe consequences from various types of liberalisation policy	Policy maker and airline planner
Regulatory/policy changes model	To analyse & monitor regulation/policy changes	Policy maker and airline planner
Airline business environmental levels model	To analyse, predict & describe consequences of changes among various factors in airline business environments	Policy maker and airline planner
Inter-factors evolutionary analysis framework	To analyse & predict consequences of interactions among selected factors	Policy maker and airline planner

Models/Matrixes	Applications	Users
Multi-angles coevolutionary matrix	To analyse relative competitive advantage & formulate coevolution	Airline planner

Table 7-5 Summary of models/matrixes' applications and users

3) *Concepts*: the findings should be organised around concepts/themes as necessary for developing common understandings. For the research, the common understandings among the findings are presented in 7.2.1. They are 'connectivity', 'longitudinal', and 'multi-angles & levels' characteristics of all key change drivers. These are also used to construct the new model to analyse changes within airline business environment.

4) *Contextualization of concepts*: Findings should be attached to context. With context, the reader of research could fully understand why events occurred, why certain meanings and not others are ascribed to events. The research is designed by following such frameworks. In establishing each particular concept, its content as well as context are included in the analysis (see Figure 7-12). As a result, in this chapter, the report structure is designed to facilitate the reader to understand each concept through its context. For example, in section 7.1.2, 'Emerging Airline Market in ASEAN' consists of two main parts. The first part describes five explored changes and phenomena (see section 7.1.2.1), which represents the context of the latter part. The latter part discusses the delimited matrix of market phenomena after liberalisation which is derived from constant comparative analysis of both acquired relevant content and context (see section 7.1.2.2).
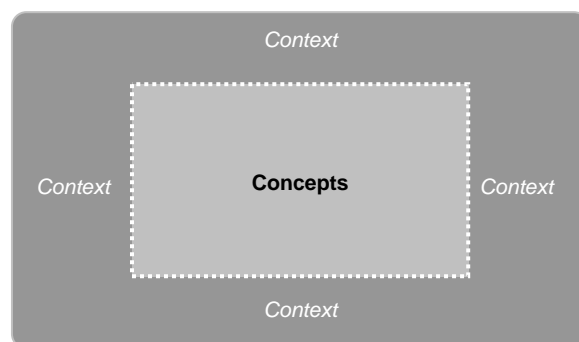
Figure 7-12 Contextualisation of concepts

5) *Logic*: the presentation of research should be a logical flow of ideas and the methodological decisions should be made clear so that the reader can judge

their appropriateness for gathering data and doing analysis. Therefore, at the very beginning of research process, the research conceptual framework design is assembled in systematic way (see Figure 3-3and Figure 3-4). Furthermore, the research report is structured in a logical approach as well and always discusses the causes and effects in a systematic manner. All developed models/matrixes/theories are supported by evidences.

6) *Depth*: is the descriptive detail that adds the richness and variation and makes the findings extraordinary. For that reason, the research target massive number and various sources of units of analysis. In addition, many research methods and data analysis techniques are applied to make sure that the investigation would be deep and wide enough to answer all research questions. Number and range of research's sources of data are summarises in Table 7-6.

Sources of Data	Quantity	Range of Data	Number
Books & articles	147	Years	2001 – 2008
Official reports	17	Countries	10
Online data sources	7	Airlines-Thai	11
News articles	1,984	Airlines- ASEAN	62
Executives & experts	32	Routes -Domestic	116
Official statistics	1	Routes -International	326

Table 7-6 Summary of data sources: range and quantity

7) *Variation*: should include cases that don't fit the pattern or that show differences along certain dimensions or properties. Regarding the analysis of various factors in this chapter, they all have certain different dimensions and properties. These could be witnessed through the variety forms of final findings in each section, such as list of factors, matrixes, and models.

8) *Creativity*: the findings should say something new, not just put old ideas together in a new way. For the research, apart from those findings in topic 7.1, the development of three model/matrixes in Figure 7-9, Figure 7-10 & 7-11, Figure 7-12 are the new conceptual frameworks providing deeper and more integral analysis toward airline business environment. In addition, the research itself represents the new way of designing investigation methods, applying grounded theory with mixed-methods methodology.

9) *Sensitivity*: the researcher should demonstrate sensitivity to the participants and to the data. Therefore, in order to minimise bias from either participating persons or data sources, the research is designed to make use of proper sampling technique. For the data sources, ATI online database tend to present more news about aircraft orders and technology, therefore, the research uses purposive sampling technique to eliminate non-relevant news. For the participants, though not all airlines' CEO can participate in the research, participants, who are top rank executives and responsible for strategic planning functions, are assigned to participate the research by the organisation's CEO. By these setting, the bias could be effectively minimised.

10) *Evidence of memos*: good quality research should have some evidence or discussion of memos in the final report. In this research, three types of memos are used to help research recall all of insights, questions and depth of thinking that gains during analysis. They are block and file records, thematic diagrams and cognitive maps. Sample of these are presented in Appendix II. Summaries of number of memos are in Table 7-7

Memos type	Block and file records	Thematic diagrams	Cognitive maps
Number of Memos	182	10	13

Table 7-7 Summary of memos evidence

The research quality self-assessment in this section is completed through above discussions and presented evidences. Regarding ten criteria, the research is designed and preceded by applying the criteria as conceptual framework. Therefore, the research could arrive to the final stage with the good quality of findings. The further conclusions and discussions toward whole theme of the research are presented in the following chapter, chapter 8.

7.4 General Conclusions

Regarding the objectives of this chapter, chapter 7, to illustrate the processes and results of last stage works, the chapter includes the significant findings of new

developed concepts, models, and matrixes. For the first part of the chapter, all eight factors are analysed by constant comparative method and their results are presented. The depth of analysis varies along the factors depending on their criticality to the business environment and data availability. The first three factors, market (section 7.1.2), competition/strategy (section 7.1.3), and regulation/policy (section 7.1.4), acquire the greatest criticality and rich results. The results of each factor are structured and presented in two parts, 'emerged changes/phenomena and their properties' part and 'delimited theory/conceptual framework/mode/matrix' part. In contrast, the rest five factors, resources/infrastructures (section 7.1.5), cooperation (section 7.1.6), distribution (section 7.1.7), technology (section 7.1.8), broad (section 7.1.9), have less criticality level and data acquired. Their analyses and results are produced and illustrated within one whole section.

The second part of the chapter (section 7.2) discusses the results of new airline business environmental analysis tools. There are three tools in total, airline business environment model, inter-factors evolutionary analysis framework, and multi-angle coevolution matrix. These tools are newly and systematically invented based on research findings. They facilitate both policy maker and airline planner to construct simple and effective structure of analysis. The results would provide both in-depth and integral views toward evolved changes, future trends, relative competitive advantages and potential strategic moves through coevolution. The last part (section 7.3) presents ten criteria for evaluating research quality and quality self-assessment results. The results show the research meet all ten criteria, with descriptions and evidences provided. The conclusions and discussion toward whole research are illustrated in the last chapter.

8 Research Conclusions

This chapter drarws together the key conclusions from the research. The conclusions chapter consists of four main sections covering research achievements (section 8.1), contributions (section 8.2), limitations (section 8.3) and recommendation for the future works (section 8.4). They are presented as follows

8.1 Research Objectives, Questions and Answers

This section aims to join the beginning with the end, to make clear picture toward the research achievements. The research objectives were set out at the beginning of the research. Then, the research questions were defined in accordance with those objectives, to provide the primary framework for further research design stages.   The whole later stages of the research were solely designed to answer these questions with the sufficiently grounded evidence. Straightforwardly, the research answers are research's results and findings.   The following three parts in this section provide descriptions covering these three elements.

8.1.1 Research Objectives (RO) and Rationales

As mentioned in Section 3.1, there are a number of problems as well as opportunities initiating the research ideas. The four main rationales are presented again as follows:

> 1) There is no research to pin down the key changes drivers of airline business in Southeast Asia region, which has different context (Social, Demographic, Policy/Regulation, Politic, Economic etc.) to other regions.
>
> 2) There is some lack of understanding in the interrelationship between those airline key change drivers.

3) Identifying emerging patterns in the underlying key change drivers enable better strategy content to be developed by airline.

4) There is no business environmental analysis tool customised for airlines. Therefore, the development of new tool would provide remarkable benefits for both airline's strategic planner and government's policy maker.

Consequently, the research was established in order to find the way to solve those problems and exploit such opportunities. Phenomenology and exploratory were selected as research's paradigm and type respectively (see section 3.2.2). For the research design concepts, coherentism approach was applied as this approach allows investigating various sources and multi-degree information (see section 3.3). After the research paradigm was selected, type and design concepts were set, the research objective were clarified as stated in section 3.4.1 as

RO1- Explore the underlying changes drivers/factors of the Southeast Asian airline business.

RO2- Provide an in-depth understanding of phenomena in airline competition and key change drivers' interrelationships under the ongoing deregulation and liberalisation circumstances in the Southeast Asian region.

RO3- Develop a new conceptual framework for airline business environmental scanning model for airline strategic planning.

8.1.2 Research Questions (RQ) and Design

The research questions were constructed to provide the research detail design framework. There are three main questions and eight sub-questions in total, corresponding to each single research objective (see section 3.4.2). These questions are relisted as follows:

RQ1- What are the key change drivers/factors influencing changes within the Southeast Asian airline business?

RQ1-1 - What are the external key factors influencing changes in Southeast Asian airline business?

RQ1-2 - What are the differences of the factors/drivers' important level?

RQ1-3- What are the common characteristics of the key change drivers?

RQ2- What are the characteristics of interrelationship of key change drivers/factors and the market phenomena in the Southeast Asian airline business under an ongoing deregulation and liberalisation circumstances?

RQ2-1 - What are the characteristics of interactive links among these factors?

RQ2-2 - What are strategic responses/actions airlines responded to or created changes in the past and present?

RQ2-3 - What are emerged changes and observed market phenomena?

RQ3- What are the new more customised conceptual frameworks for airline business environmental analysis/scanning practice?

RQ3-1 - What are the key factors that have to be taken in to account in airline business environment scanning?

RQ3-2 - What are the analytical processes in airline business environment scanning?

RQ3-3 - What are the expected outcome from airline business environment scanning?

Once the research objectives and questions were defined, the detail designs of the research were constructed. The research designs were assembled with three main research modules aiming to discover the answers for the above questions. Mixed method research is also applied to design the research structure. The details designs of the research are summarised again in Table 8-1 (see also Figure 3-3and Figure 3-4):

Research Design	RM 1	RM 2	RM 3
Objectives	Explore ASEAN airlines' changes drivers, their interrelationships and market phenomena	Explore Thailand airline's change drivers, their interrelationships and market phenomena	Generalise change drivers, emerged changes & market phenomena and Develop new environmental analysis tool
Number of Sub-module	2	2	-
Methodology	Hermeneutic Phenomenology(Mixed Methods)	Case Study (Mixed Methods)	Grounded Theory (Mixed Methods)
Units of Analysis	Industry news, books and journal, statistics, regional and countries' reports	Industry executives & experts, statistics, and industry news	Outputs from RM1 and RM2
Method	Documents review	Interview, Questionnaires, and Documents review	Documents review
Data Analysis Technique	Content Analysis and Thematic Analysis	Cognitive Mapping and Descriptive Analysis	Constant Comparative Method

Table 8-1 Summary of research design

8.1.3 Research Answers

Regarding the research design concepts as mentioned in Section 3.3 and above section, the research were assembled by coherentism approach which could facilitate mixed methods and support a tool to analyse multi data sources. In addition, those three modules were designed to apply several methodologies, methods, units of analysis, and data analysis techniques. By this multi-dimensional approach, the research were conducted to collect all targeted data and analyse them with the assigned techniques in order to find proper answers for all questions. Therefore, all relevant findings were classified into relevant categories corresponding with these research questions. The research answers (RA) for each question are summarised as follows.

RQ1*- What are the key change drivers/factors influencing changes within the Southeast Asian airline business?*

RA1: The final generalised key change drivers are 'broad', 'competition/strategy', 'cooperation', 'distribution', 'infrastructure/resource', 'market', 'regulation/policy', and 'technology'..

RQ1-1 - What are the external key factors influencing changes in Southeast Asian airline business?

RA1-1: There are two main extensive lists of explored key change factors influencing changes in ASEAN airline business. The first list found by content analysis having 160 factors within 9 driver categories (see section 5.5 and Table 5-14). The second one discovered by cognitive mapping analysis having 103 factors within 10 driver categories (see section 6.5 and Table 6-24). The final list of key change drivers were generalised by constant comparative method. Eight key change drivers were delimited and defined in section 7.1.1.1. They are 'broad', 'competition/strategy', 'cooperation', 'distribution', 'infrastructure/resource', 'market', 'regulation/policy', and 'technology'.

RQ1-2 - What are the differences of the factors/drivers' important level?

RA1-2: There are seven different types of measure to differentiate particular key change driver. They are

- % occurrences: indicate frequency cited of the factor. (See Section 5.5 with Table 5-14 and Section 6.5 with Table 6-24)
- Concept density: indicate direct influence level of the factor. (See Section 6.5.1 and Table 6-24)
- Concept centrality: indicate broad impact/criticality level of the factor. (See Section 6.5.2 and Table 6-24)
- Concept tail: indicate the factor being root cause of changes. (See Section 6.5.3 and Table 6-24)
- Impact level of changes: indicate the impact level of the driver in practical action form. (See Section 6.6.2 and Table 6-28)
- Impact level of driver: indicate the impact level of the driver in general broad form. (See Section 6.6.3 and Table 6-29)

- Effort level of driver: indicate the effort level being used to analyse the driver in general broad form. (See Section 6.6.3 and Table 6-29)

The rank summary from each measure are summarised in following table.

Categories	RM 1-1	RM 2-1				RM 2-2		
	% Occ. Rank	% Occ. Rank	Den. Rank	Cent. Rank	Tail Rank	Part II-Impact Rank	Part III-Impact Rank	Part III-Effort Rank
Broad	7	3	10	9	1	5	8	7
Competition	6	4	4	3	9	3	2	2
Cooperation	4	9	2	7	7	7	5	5
Distribution	9	8	5	4	10	6	4	5
Infrastructure/Resource	2	6	9	8	3	4	7	4
Internal	-	7	7	5	6	-	-	-
Market	1	1	1	1	8	1	1	1
Other	3	-	-	-	-	-	-	-
Regulation/Policy	5	2	8	6	2	2	3	3
Strategy	-	4	3	2	4	-	-	-
Technology	8	10	6	10	5	8	6	8

Table 8-2 Summary of key change driver's ranked by seven measures

RQ1-3- What are the common characteristics of the key change drivers?

RA1-3: The common characteristics of the key change drivers as business environment could be summarised into six dimensions. They are 'stability', 'predictability', 'complexity', 'diversity', 'vulnerability', and 'exploitability'. The explanations of each characteristic were illustrated in Section 7.1.1.2.

RQ2- What are the characteristics of interrelationship of key change drivers/factors and the market phenomena in the Southeast Asian airline business under an ongoing deregulation and liberalisation circumstances?

RA2: There are totally three interrelationship's characteristics and 16 emerged changes/market phenomena discovered and discussed.

RQ2-1 - What are the characteristics of interactive links among these factors?

RA2-1: The research discovered the mutual characteristic of interactive links among key change drivers as having three main dimensions. They are (see section 7.2.1)

- Interconnectivity: the link from/to particular factor does not only connect from/to one single factor next to it, but it could also link to/from many other factors surrounding it.
- Different impact level: though all drivers contain interconnectivity properties, they produce certain different type and level of impact to airline business. The centrality analysis as well as the strategic planner's perception could provide input to justify different tiers of factors having different impact level to changes.
- Different impact type: there are two types of impact discovered. They are directional type having three effects; negative, neutral and positive effects; and influential type having two effects; mutual and specific effects.

RQ2-2 - What are strategic responses/actions airlines responded to or created changes in the past and present?

RA2-2: the strategic responses/actions of airline to encounter or create changes are summarised as emerged changes and market phenomena of 'competition/strategy' factor in section 7.1.3.1. They are 'increasing competitive environment', 'expansion to new market', 'turnaround strategies of ASEAN legacy airlines', 'emerged competitive behaviour', 'niche product specialisation', and 'free and forced market exit'.

RQ2-3 - What are emerged changes and observed market phenomena?

RA2-3: The emerged changes and observed market phenomena are illustrated in Section 7.1. There are eight main emerged changes and market phenomena, each result are derived from the investigation of each key change drivers. They are 'emerging airline market in ASEAN (see section 7.1.2)', 'evolving airline strategic moves (see section 7.1.3), 'regulation and regulatory body in transition (see section 7.1.4)', 'resources and infrastructures changes (see section 7.1.5)', 'emerging cooperative patterns (see section 7.1.6)', 'creation of new airline distribution channels (see section

7.1.7)', 'Implication of technology for airline (see section 7.1.8)', and 'broad factor classification (see section 7.1.9)'.

RQ3*- What are the new more customised conceptual frameworks for airline business environmental analysis/scanning practice?*

RA3: There are 11 generalised conceptual frameworks and 3 newly developed conceptual frameworks for the airline business environmental analysis.

RQ3-1 - What are the key factors that have to be taken in to account in airline business environment scanning?

RA3-1: The factors are needed to be analysed of these 11 generalised conceptual frameworks being listed and discussed in section 7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.6, 7.1.7, 7.1.8, and 7.1.9. For these 3 newly developed conceptual frameworks, they are listed and discussed in section 7.2.2, 7.2.3, and 7.2.4.

RQ3-2 - What are the analytical frameworks in airline business environment analysis?

RA3-2: The analytical frameworks of 11 generalised conceptual frameworks are set and explained in section 7.1.2.2, 7.1.3.2, 7.1.4.2, 7.1.5, 7.1.6, 7.1.7, 7.1.8, and 7.1.9. For 3 newly developed conceptual frameworks, they are explained in section 7.2.2, 7.2.3, and 7.2.4.

RQ3-3 - What are the expected outcome from airline business environment analysis?

RA3-3: The expected outcome from these 14 new airline business conceptual frameworks is that to provide the good insights of business environment which enhances high-value decision support capability. However, the applications of main conceptual frameworks were presented in Table 7-5.

The summary of research questions and answer are also presented in Table 8-3 as follows.

Research Questions	Research Answers		
	Descriptions	References	Page
RQ1-1 - What are the external key factors influencing changes in Southeast Asian airline business?	Content analysis: 160 drivers Cognitive mapping: 103 drivers	-Table 5-14 -Table 6-25	29 242
RQ1-2 - What are the differences of the factors/drivers' important level?	-% occurrences (content) -% occurrences (cognitive) -density -criticality -tail occurrences -importance rating	-Table 5-14 -Table 6-25 -Section 6.5.1 -Section 6.5.2 -Section 6.5.3 -Table 6-30	29 242 242 243 244 252
RQ1-3- What are the common characteristics of the key change drivers?	-Stability -Predictability -Complexity -Diversity -Vulnerability -Exploitability	Section 7.1.1.2	259
RQ2-1 - What are the characteristics of interactive links among these factors?	Mutual Characteristics -Interconnectivity -3 criticality level, 5 angles -Longitudinal	Section 7.2.1 -Figure 7-8 -Figure 7-9 -Figure 7-10	289 292 294 295
RQ2-2 - What are strategic responses/actions airlines responded to or created changes in the past and present?	Evolving Airline Strategic Moves	-Section 7.1.3	266
RQ2-3 - What are emerged changes and observed market phenomena?	Emerged changes/phenomena of eight generalised key change drivers	-Section 7.1	257-288
RQ3-1 – What are the key factors that have to be taken in to account in airline business environment scanning?	-Primary level: 6 factors -Secondary level: 4 factors -Territory level: 5 factors	-From section 7.1.2 to 7.2.4	261-295
RQ3-2 – What are the analytical frameworks in airline business environment analysis?	-Inter-Factors Evolutionary Analysis Matrix -Multi-Angles Coevolution Analysis Matrix	-From section 7.1.2 to 7.2.4	261-295
RQ3-3 – What are the expected outcome from airline business environment analysis?	- Applicability of the research	-Table 7-5	301

Table 8-3 Summary of research questions and answers

8.2 Research Contributions

Easterby-Smith, Thorpe et al.(2008) suggests that doctoral theses should demonstrate some kind of original contribution to the field. In general, there are three main forms of contribution: as new knowledge about the world-substantive contribution, as new theories and ideas-theoretical contribution, and as new methods of investigation-methodological contribution. The research programme was designed to apply various methods and data analysis techniques in order to achieve the objectives and provide practical and effective deliverable (see Figure 8-1). Therefore, the

research's outcome could be justified as offering two forms of contribution, theoretical and methodological contributions. The summary of these contributions are outlined in the following sections:
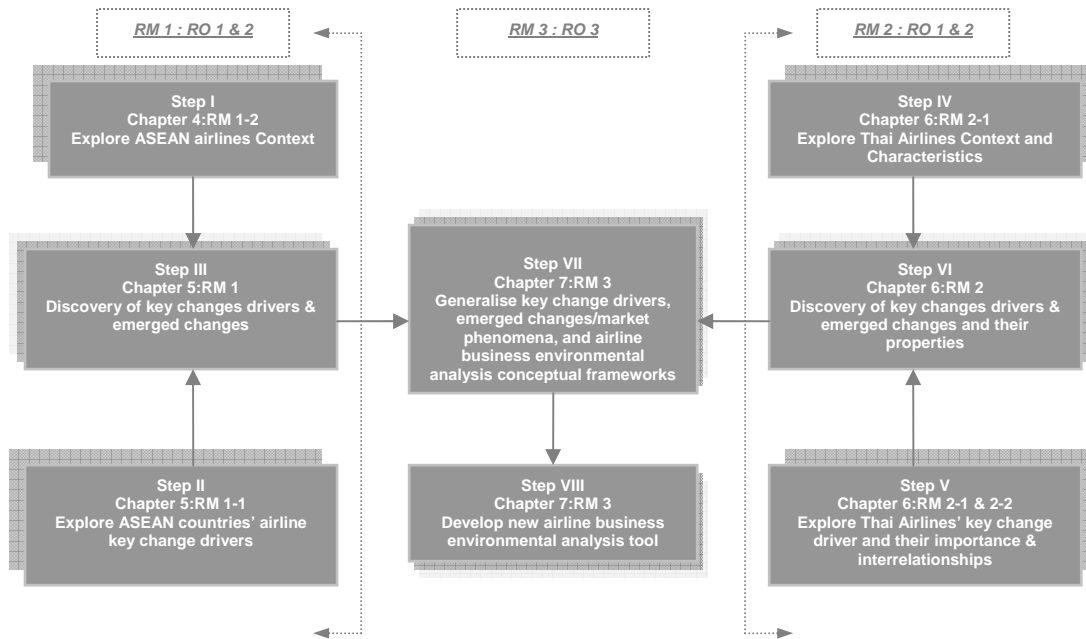
Figure 8-1 Schematic diagram of the research programme implementation

8.2.1 Theoretical Contribution of the Research

According to the research objectives and questions, the research primarily aims to discover three main mysteries of the Southeast Asia airline business. They are, the hidden external key change drivers affecting changes within the region, their importance and interrelationships, and emerged changes and phenomena in the market. Once these three mysteries are revealed, the findings could lead to the assembly of new airline business environmental analysis/scanning tool. Therefore, the research contribution in the theoretical form consists of two main level, the primary and secondary ones.

8.2.1.1 Primary Theoretical Contributions

The primary theoretical contributions are referred to the discovery and generalisation of those three main elements as principal objectives of the research works. Chapter 5 and 6 play the most significant roles in producing the dense list of key changes drivers and emerged changes. Chapter 7 provides the generalisation processes by constant comparative technique to transform the lists to be the grounded concepts with attached properties illustrated in Chapter 7. The step I to VII in Figure 8-1 represent such processes and outputs. The final outputs are generalised key changes drivers, emerged changes/market phenomena, and new airline business environmental analysis conceptual frameworks. They offer the primary theoretical contribution to knowledge of the airline strategic management academic domain as well as airline strategic planning and governmental policy making. This section outlines them as follows.

Facilitate insights of airline external key changes drivers: the discovery of these generalised eight external key changes drivers offers new visions toward analysis of airline business environment. At present, the available generic lists of key factors provided for environmental scanning/analysis are constructed for typical industry and may not support highly regulated airline business which contains some specific characteristics (already discussed in section 7.2.5). Therefore, these new customised lists of key factors for airline business and their generalised properties could provide insights of changes within the business environments and facilitate the strategic planning and monitoring. The final results of this work were presented in section 7.1.1.

Enhance efficiency and effectiveness of business environmental analysis: for the efficiency, the understanding toward those key factors and their properties could lead to more quickly and easily environmental analysis processes as those derived concepts could help to reduce ambiguity and complexity to low levels comparing to those generic models with irrelevant list of targeted factors providing ineffective insights (see section 7.2.5). Therefore, the organisation could save a lot of time spent and allocate proper resources to the more significant targeted factors. For the effectiveness, actionable insight and implications from the systematically developed concepts facilitate more confidence decision through the organisation's strategy formulation processes. The better matching of a scope and scale of organisation's activities to its changing

environment could be achieved. In addition, the revealed factors and their properties also elevate effectiveness of strategic and competitive intelligence efforts of the organisation in focusing on more relevant and high-impact external factors.

Knowledge Foundation by the generalised concepts/models/matrixes: all research works' findings presented in section 7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.6, 7.1.7, 7.1.8, and 7.1.9 provide remarkable and actionable originality to the knowledge foundation. These concepts/models/matrixes were developed from extensive data and the results from RM 1 and 2 (chapter 5, 6 and 7). Each of these could be capitalised and applied to analyse and describe past changes, current situations, and future scenarios of particular factor. Such knowledge has not ever been discovered before in the airline business environment domain, especially within the Southeast Asian regional context.

8.2.1.2 Secondary Theoretical Contributions

The secondary theoretical contributions of the research to knowledge and the industry are those new developed airline business environmental analysis tools. Though they do not provide such originality like the primary one, they offer the applications of knowledge with the actionable tools for analysing airline business environment as well as relative competitive advantage analysis and strategic choices formulation through coevolutionary approach. The tools were constructed by synthesis between facts and ideas and integration of previous grounded findings (see step VIII in Figure 8-1). Matrix features are used to form the analytical tools, facilitating the cross interaction sequential analysis between unlimited selective factors, not just only one or pair of them. These could help to eliminate prior hypothesis, overconfidence, and simplification bias of the analyser while performing the analysis and also facilitate the critical idea generation toward consequences from each inter-factors interaction. The detail discussions of the tools were outlined in section 7.2.2, 7.2.3, and 7.2.4. In addition, applications of all developed models were summarised in Table 7-5.

8.2.2 Methodological Contributions of the Research

According to the research design, mixed methods were adopted in all main research modules and grounded theory methodology is applied to generalise all findings as well as facilitate new business environmental analysis models' development. The mixed methods were used to neutralise or eliminate some of disadvantages and limitations of each certain method, whereas, the grounded theory allow to develop a theoretical interpretation of a targeted phenomenon and ground such interpretations in empirical data. These particular unique research design and programme implementations offer the new knowledge about method of the subject's investigation. The constructions of research design and programme implementation were presented in section 3.3, 3.4, and 3.5.

8.3 Research Limitations

The limitations of research were placed at two stages, the research data collection and findings. The data collection limitations refer to data themselves not the collection methods, while, the findings limitations relate to those outputs from each particular analysis. Both limitations are discussed in the next two sections separately.

8.3.1 Limitations of Research Data Collections

As mentioned in the previous section, the research data collection limitations focus on the data themselves. According to the research design, there are six sources of data which is treated as research units of analysis (see Figure 3-4, Table 7-4, Table 7-6, and Table 8-1). Along the research programme implementations, three from six sources of data contain some certain limitations. They are statistics, executives and official reports/information.

Firstly, the official statistics acquired in this research are from one source, Thai DCA. The rest of statistics were obtained from online database. The other nine ASEAN countries's DCAs provide not in-depth statistics unlike those offered by Thai DCA. Therefore, the in-depth analysis about the route and competition characteristics in other

ASEAN countries could not be performed. Moreover, statistical data of different countries in some online source, such as Euromonitor, are not provided in the same range and depth. These led to unequal richness of country context provided in Chapter 5 and could weaken the analysis at the later stages for all ASEAN countries.

Secondly, the missing of participating executives of three operating airlines in Thailand case study could lead to opportunity loss for additional data. Though those airlines account for less than 5 % share of total available seats/ week; their executives' opinions, ideas, perceptions and recommendations would certainly benefit the research works. In addition, given a time constrain of the research project, those executives of airlines closed during the review period have not been included as the targeted units of analysis, thus, these could be counted as another opportunity loss for acquiring different perspectives from fail-airline executives.

Finally, the last limitations belong to scarcity of official airline annual reports or other forms of official press releases in Thailand case study. Thai airways (THA) is the only one airline providing such complete data. Attaining these data could facilitate more critical analysis toward airline competitive behaviours. However, such data limitations were complemented by collected extensive data from other online sources, such as ATI and local business media, as an alternative.

8.3.2 Limitations of Research Findings

Among those research findings, some of them contain certain limitations. The first limitation is laid in the questionnaire respondents. Simplification bias could be potential cause. The respondents may hold some oversimplifying on not so simple factor. These could result in misjudging an impact level rating of particular factor. At the research design stage, the questionnaire design strategy was applied by separating the questions asking about whole categories as main factors (questionnaire Part III) from those asking about each sub-factor under the categories (questionnaire Part II. By this technique, the respondents' bias could be detected and included in the later stages.

The second research finding limitation is caused by the prior hypothesis bias of the new developed models' user, especially for the inter-factors evolutionary analysis

matrix which needs decision toward choices of factors being selected to fill up the matrix's heading row and column and to analyse past and future changes affected by those factor-pair interactions. Such bias is created when individual who has strong beliefs about the relationships between factors and their importance tend to make decisions on the basis of such beliefs, rather than relies on analytical evidences. Therefore, the matrix features could help to reduce such potential problems by guiding the matrix user to do inter-factors analysis which expects to obtain their past to present evolutions and the future changes as outputs. Therefore, the matrix user could not concentrate on only particular preferred factor-pair and project the future scenarios which contradict their past changes (see Section 7.2.3 and Figure 7-9).

The last limitation is caused by illusion of control bias and potentially occurred when the multi-angles coevolution analysis matrix is employed. This kind of bias is an individual's tendency to overestimate one's ability to control events, especially for the senior executives. As a result, when the matrix user is needed to initiate ideas about coevolutionary strategy in order to advance the firm's competitors by partnering with other players within its business environment, the user may not put sufficient efforts to formulate the strategy and select to cooperate with only preferred players as overconfidence on one's control ability over some particular players. This potential problem could be eliminated by the matrix design that requests the user to perform coevolutionary strategy formulation not only with some particular player, but also all players selected at the previous stage of analysis (see Section 7.2.4 and Figure 7-11).

8.4 Recommendations for Future Research

This last section provides the directions for future research to carry on the further development of this research's initiatives. The research has established new frameworks to analyse and describe certain phenomena in the airline business environment, particularly in the Southeast Asia region. The contribution to both academic and industry circles, of the research, have already been discussed in section 8.2. In this section, four potential issues could be selected to develop future research topics.

Financial Performance and Airline Strategic Changes: the financial factors have been excluded from the analysis as it is an internal factor of airline and out of the study scope. However, the financial performance is a vital factor to the firm's wealth and growth. This factor could be negatively and positively affected by both changing internal and external factors. Therefore, the study of interrelationships of airline strategic changes and financial performance should be investigated by including some of this research's findings related to the airline strategic behaviours as initial references. The in-depth understandings toward the subject could facilitate airline planners to construct more adaptive plans and effectively monitor changes of financial-relevant factors.

Longitudinal study of airline business environmental changes: in order to expand insights beyond this limited exploratory research, a study could be conducted covering longer period of reviewing time. A longitudinal study could be performed to collect data at more points in time and longer period from the same organisations. The findings from such method would be more profound with richer grounded content and context. Nevertheless, this method would consume a lot of time to complete the whole research programme.

Exploration of changes' leading indicators: this research is mainly designed to explore the key changes drivers, emerged changes and phenomena in airline business environment. Though some changes' lacking indicators were discovered and discussed in this research (see section 7.1.2.2, 7.1.3.2, and 7.1.4.2), leading ones have not been included. The exploration of leading indicators could be carried out in accordance with longitudinal study. The results would contribute remarkable benefits to both airline strategic planner and government policy analyst as the leading indicators provide the proactive monitoring indices of changing business environment as well as the effective feedback for particular strategic moves.

In-depth comparative study of other regions and/or ASEAN countries: according to time and budget limitations, Thailand was one from 10 ASEAN countries selected as single case study in this research. The other 9 ASEAN nations as well as other regions are also needed to be investigated to additionally affirm the results of this research. The comparative study would provide new dimensions and findings in particularly different context. In addition, networking this type of research with the local researchers in each

countries would strengthen the research outcomes as, occasionally, in-depth data could be only accessed by the personal connections with local firms and/or authorities.

8.5 Conclusion Remarks

This concluding chapter has given the whole completed picture of the research starting from research objectives, findings and contribution. The limitations of the research have been identified and led to the recommendations for future works. This research has made originality and significant contributions to the body of knowledge in offering the new frameworks for analysing airline business environment. Hopefully, the deliverables of this research will be effectively transformed into practices.

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APPENDIX A: Cover Letter

<div align="right">

Department of Air Transport

School of Engineering

Cranfield University

Bedfordshire

MK43 0AL England

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<div align="center">

4 July 2008

</div>

Dear Chief Executive Officer,

RE: Airline Key Change Drivers and Business Environmental Analysis in the Southeast Asia: Strategic Planning Perspectives

I am a Lecturer in Aviation Management, Kasetsart University, Thailand, who is taking Ph.D. in Air Transport Management at Cranfield University, England. I am writing to invite you to share your professional knowledge and experiences toward the above topic.

According to the review of various airline strategic planning literatures, there are very few academic works involving airline key change drivers and business environmental analysis. In addition, the ongoing open skies campaign of ASEAN and its member countries has induced the number of changes to the places. This research has been initiated to explore the underlying change drivers and provide the depth understanding of phenomena in airline market under the ongoing deregulation and liberalisation circumstances, which will help to construct the new business environmental analysis technique, customised for airline. The research outcomes would remarkably contribute to the new era of airline strategic planning, which enables more appropriate strategy content to be developed.

In order to achieve the objectives, I believe that by talking to the top executives who operate in the airline business can substantially gain the insight into the areas of

research exploration. Therefore, I am writing to invite you to participate in an interviews session, discussing your own personal views of the "key changes drivers" and their "importance and interrelationships". The interview would be expected to need forty to forty-five minutes of your time. Your views would be extremely important to proceed with the intended tasks. I am well aware of the need to be strictly confidential to the source, individual, organisation or any comment, which will not be revealed to any outside party without your permission to do so.

Moreover, I do understand the tight schedule of airline executives and am therefore happy to meet you either at your office or any where that may be more comfortable for you. Also, I am willing to be flexible in timing either early morning or evening appointments if it would help finding a more appropriate window in your diary.

I hope that you would be willing and find the time to grant me an interview. It would be the great contribution to both airline business and academic society as the tasks I am trying to achieve will be of significance. Attached reply form is for your convenience, addressed to my research base at Kasetsart University, Thailand. I will certainly provide you the summary of the study, once complete.

Yours sincerely,

Navatasn Kongsamutr
Ph.D. Researcher
Department of Air Transport
Cranfield University

Attention of Navatasn Kongsamutr, Department of Aerospace Engineering, Kasetsart University, Bangkok, 10900 Thailand. Mobile: +66 (0) 8 1333 5040 Fax: +66 (0) 2579 8570 Email: navatasn.k@ku.ac.th

RE: Airline Key Change Drivers and Business Environmental Analysis in the Southeast Asia: Strategic Planning Perspectives

☐   I am prepared to grant you an interview. I could meet you at the following dates, times and places:

Date……………………………   Time…………………………………

Places……………………………………………………………………………………

☐   Please contact me / my secretary to arrange an appropriate date, time and places:

Tel. no…………………………….

☐   I also recommend that you should contact

……………………………. at …………………….. to get the interview

You may / may not mention my name.

☐   I am unwilling to grant you an interview. (Providing the reason to the case would be appreciate)

……………………………………………………………………………………

Note: You have full rights to get these products even you cannot participate the interview.

☐   I would like to receive a summary of the results of this research.

☐   I would like to receive an academic paper, entitled "Foresight in ASEAN Airline Business through EU Air Transport Liberalisation Experiences", Authors: N. Kongsamutr & Dr. K. Mason, Accepted by: Air Transport Research Society Conferences 2007 at University of California, Berkeley.

I do prefer to receive the products in   ☐ Electronics version   ☐ Printed version

Please send the products to:

Your Name: …………………………………………………………………

Contact Address:

.................................…………………………………………………………………………………….

………………………………………………………………………………………………………

Tel: ………………………………………………………….

Fax: …………………………………………………………

E-mail: ………………………………………………………

Date: ………………………………………………………..

APPENDIX B: Interview Questions

SEMI STRUCTURE INTERVIEW QUESTIONS

1. Please tell me about your past experiences.

2. How do you think about changing airline business environment (e.g.; regulations, competition, market, and economics) over past 5 years?

3. From your point of view, what are the five external key factors that mostly influence your airline strategic planning?

4. How would you rate the importance of each factor?

5. Could you please give me two examples of your airline major changes due to the particular external factor/s?

6. Could you please give me an example of any cases your airline underestimated the emerging changes in external factor/s and it/they caused negatively results in your business?

7. Could you please give me an example of any cases your airline successfully exploited the emerging opportunities in external factor/s? How did you discover them?

8. How would you describe the foresight of Thai airline industry in next 5 years?

(Optional questions)

9. From your current strategic planning approach, how would you describe the processes of external environmental analysis?

10. To full fill your need of doing effective strategic planning for your airline, how would you wish to see the environmental scanning tools being improved/developed?

*** *** ***

APPENDIX C: Questionnaire Survey Questions

INTRODUCTION

Thank you for agreeing to take part in this survey. According to the ongoing open skies campaign of ASEAN and its member countries, it has induced many different driving forces, both internal and external that have brought new market conditions. This research has been initiated to explore the underlying change drivers to provide an in-depth understanding of phenomena in airline market under the ongoing deregulation and liberalisation circumstances. This will help to construct a new business environmental analysis technique, specialised for airlines. Your participation would considerably contribute to a new era of airline strategic planning. I would like to remind you that individual responses will be strictly confidential only to the researcher and will not be revealed to any outside party.

If at any time you would like to discuss the survey or the evaluation, please do not hesitate to contact me. In case you complete the printed version questionnaire, please return to my research base in Thailand:

Navatasn Kongsamutr, Air Transport Group, Department of Aerospace

Engineering, Kasetsart University, Bangkok, 10900, Thailand.

Mobile: (+66) (0) 8 1333 5040, Fax: (+66) (0) 2579 8570, Email:

navatasn.k@ku.ac.th

Note: You have full rights to get these products even you cannot participate the survey.

☐   I would like to receive a summary of the results of this research.

☐   I would like to receive an academic paper, entitled "Foresight in ASEAN

      Airline Business through EU Air Transport Liberalisation Experiences",

      Authors: N. Kongsamutr & Dr. K. Mason, Accepted by: Air Transport

      Research Society Conferences 2007 at University of California, Berkeley.

    I do prefer to receive the products in

        ☐   Electronics version   ☐   Printed version

Name _____

Position _____

Company _____

Address _____

_____

Country _____

E-mail _____

Tel. _____

Fax. _____

1. In your professional experience, how involved have these following been?
(Please mark a scale of 1-5 indicates relative involvement, with 1 being used to
represent least involvement and 5 being used to represent the most involvement and 0
indicates not involved at the professional experience.)

	No involved	Involved				
Accounting	*0*	1	2	3	4	5
Cabin Crew	*0*	1	2	3	4	5
Engineering	*0*	1	2	3	4	5
Finance	*0*	1	2	3	4	5
Flying	*0*	1	2	3	4	5
Human Resources Management	*0*	1	2	3	4	5
Law	*0*	1	2	3	4	5
Marketing	*0*	1	2	3	4	5
Strategic Planning	*0*	1	2	3	4	5
Other (please specify):		1	2	3	4	5

2. How long of your professional life have you spent in the airline industry?

Number of Years

PART II: AIRLINE KEY CHANGES DRIVERS

3. How has each of the following key drivers impacted changes within your airline business? (Please mark a scale of 1-5 indicates relative driver's impact, with 1 being used to represent least impact and 5 being used to represent the most impact and 0 indicates no impact key driver.)
Any other drivers that you think should be included here, please add them under the 'Other' category and assign scale.

	No impact	Impact				
Domestic deregulation/liberalisation of airline industry	*0*	1	2	3	4	5
Regional deregulation/liberalisation of airline industry	*0*	1	2	3	4	5
Globalisation	*0*	1	2	3	4	5
Changing customer expectation	*0*	1	2	3	4	5
Expanding of free trade agreement and areas	*0*	1	2	3	4	5
Evolving distribution systems	*0*	1	2	3	4	5
Price war	*0*	1	2	3	4	5
Development of Information & Communication Technology	*0*	1	2	3	4	5
Anti-competitive/collusion behaviour	*0*	1	2	3	4	5
Expanding of low fare/cost carrier(s)	*0*	1	2	3	4	5
Expanding of airline strategic alliance	*0*	1	2	3	4	5
Subsidisation from home country's government	*0*	1	2	3	4	5
Creation of new airline business model	*0*	1	2	3	4	5
Aggressive responses from incumbent/s	*0*	1	2	3	4	5
Airport Capacity Limitation	*0*	1	2	3	4	5

	No impact	Impact				
Development of vertical strategic partnership (with e.g. supplier, distributor, etc.)	_0_	1	2	3	4	5
A large number of new entrants	_0_	1	2	3	4	5
Demand for new airline services	_0_	1	2	3	4	5
Environmental pressure	_0_	1	2	3	4	5
Development of aircraft technology	_0_	1	2	3	4	5
Air traffic management reform	_0_	1	2	3	4	5
Financial Instability	_0_	1	2	3	4	5
High market power of distributors (e.g. travel agents, GDSs, etc.)	_0_	1	2	3	4	5
Development of on-ground products technology	_0_	1	2	3	4	5
Too many competitors	_0_	1	2	3	4	5
Other (please specify):		1	2	3	4	5
		1	2	3	4	5
		1	2	3	4	5

4. Please rate each of the following key external factors according to
       a) Their importance to your airline strategic planning and
       b) Your efforts that have been put into analysing each factor in your airline
         strategic planning
(Please mark a scale of 1-5 indicates relative importance/effort, with 1 being used to represent least importance/effort and 5 being used to represent the most importance/effort and 0 indicates no importance/effort.)
Any other factors that you think should be included here, please add them under the 'Other' category and assign scale.

	a)		b)	
	None	Importance	*None*	Effort
Competitive Factors *All information about competitors' present and potential, including their actions, decisions, strategies, plans, strength, weaknesses, etc.*	*0*	1 2 3 4 5	*0*	1 2 3 4 5
Market Factors *All information about the markets excluding issues connected with competition and distribution channels. Examples: market potential, customers' needs and taste, promotion responses, etc.*	*0*	1 2 3 4 5	*0*	1 2 3 4 5
Technology Factors *All information about present and potential products and process technologies that can affect airline business.*	*0*	1 2 3 4 5	*0*	1 2 3 4 5
Regulatory/Policy Factors *All information about regulations and/or policies that can affect the airline business operations.*	*0*	1 2 3 4 5	*0*	1 2 3 4 5
Cooperative/Relationship Factors *All information about cooperation's present and potential, including the relationship with external parties, e.g. suppliers, distributors, strategic partners, etc.*	*0*	1 2 3 4 5	*0*	1 2 3 4 5
Distribution Factors *All information about distribution channels' and systems' present and potential.*	*0*	1 2 3 4 5	*0*	1 2 3 4 5
Infrastructures/Resources Factors *All information about infrastructures/resources'*	*0*	1 2 3 4 5	*0*	1 2 3 4 5

	a)		b)	
	None	Importance	*None*	Effort
present and potential, including financial, labour and raw-material markets and aviation infrastructures that can affect airline goods and services, resources and services procured by the firm for carrying out its operations.				
Broad Factors *All information on demographic, social, natural environment, economic and political trends.*	*0*	1 2 3 4 5	*0*	1 2 3 4 5
Other (please specify):	*0*	1 2 3 4 5	*0*	1 2 3 4 5
	0	1 2 3 4 5	*0*	1 2 3 4 5

5. Which three airlines in your country and ASEAN, do you see as having the greatest and poorest capability for responding to market changes over the past five years? Please also give reasons why you think each is so.

The greatest airline

Airline	Reasons
1.	
2.	
3.	

The poorest airline

Airline	Reasons
1.	
2.	
3.	

END

Thank you for your kindly assistance in completing this document.

APPENDIX D: Inter-coder Reliability Calculations

This following table illustrates the record of content analysis of selected sample performed by the researcher and other coder.

		Researcher									
		Com	Mar	Tec	Reg	Coo	Dis	Inf	Bro	Oth	Total
Other Coder	Com	7	5								12
	Mar	8	105								113
	Tec			3				5			8
	Reg				20	2		3			25
	Coo					11					11
	Dis						1				1
	Inf							71			71
	Bro				3				19		22
	Oth								3	26	29
	Total	15	110	3	23	13	1	79	22	26	292

According to Equation 1 Inter-coder reliability formula (page 75)

$$\kappa = \frac{\Pr(a) - \Pr(e)}{1 - \Pr(e)}$$

To calculate Kappa (κ), firstly, the proportion of inter-coder agreement is needed. It is calculated by summing the diagonal entries and dividing by the total number of observations.

Pr(a) = (7+105+3+20+11+1+71+19+26)/292 = 0.92

Next, to find the proportion of agreements expected by chance, multiply each column total with its respective row total, and sum these products. This sum would then be divided by the square of the total number of observations.

Pr(e) =
[(15*12)+(110*113)+(3*8)+(23*25)+(13*11)+(1*1)+(79*71)+(22*22)+26*29)]/292^2
= 0.24

Therefore, Kappa (κ) = (0.90-0.24)/(1-0.24) = 0.87

APPENDIX E: Samples of Memos
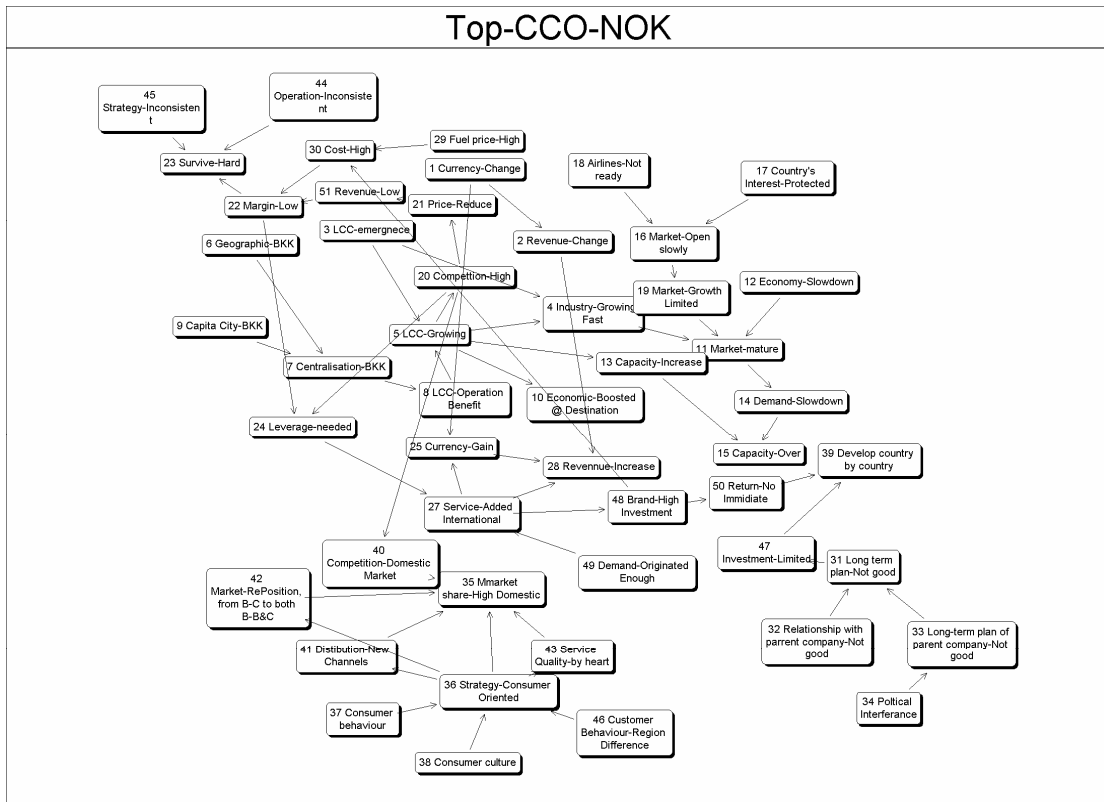
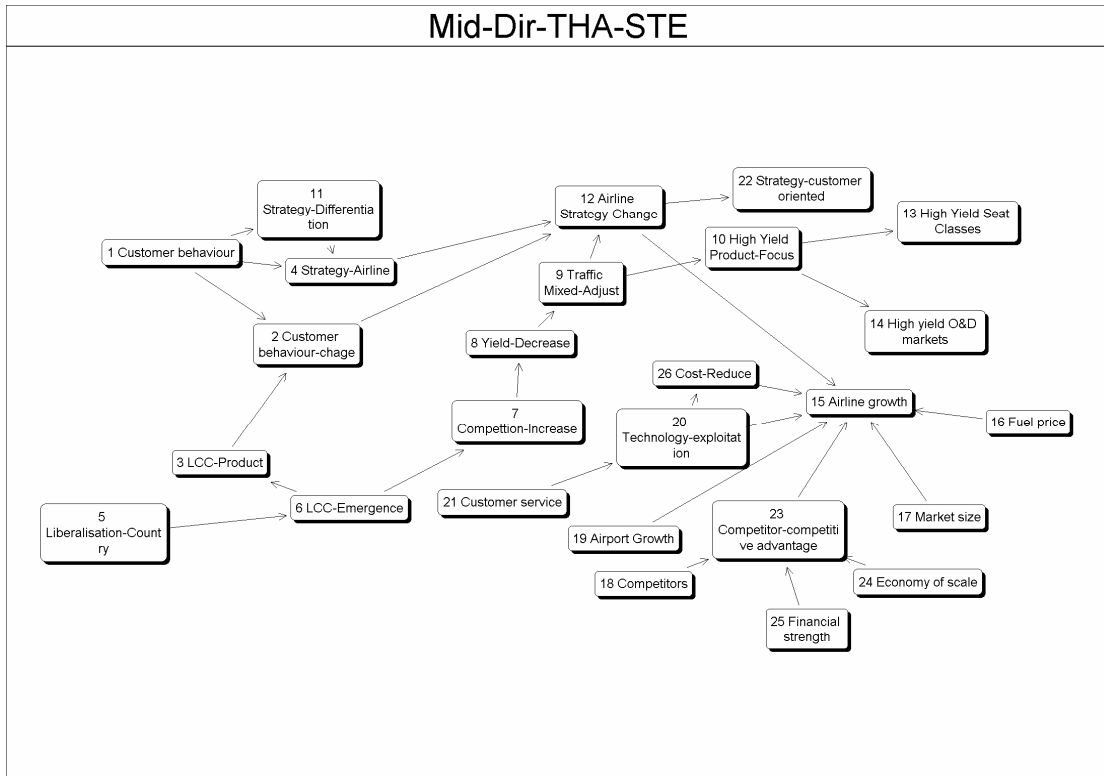Top-CCO-NOK

Banxia Decision Explorer   Navatasn Kongsamutr   Cranfield University

Mid-Dir-THA-STE

Banxia Decision Explorer   Navatasn Kongsamutr   Cranfield University

Industrial executives' and experts' cognitive mapping

Block & File Memos

Country: Brunei   **Airline: Royal Brunei Airlines**

Date	No. of Words	Action	Competitive	Market	Technology	Regulatory	Cooperative	Distribution	Infra/ Resources	Supplier	Broad	Other	Internal
5/5/2008	72	Codeshare					Market alliance						
4/9/2008	90	Drop route											Strengthen core route
4/8/2008	87	Drop route	regional competition increase										Strengthen core route
3/25/2008	240	Waiting deal			Aircraft/B777								interim solution for 777
1/24/2008	58	End codeshare					Market alliance						
10/26/2007	128	Drop&Add route											
5/21/2007	244	Appoint CEO								HR-Exec			no permanent CEO since AUG 05
5/15/2007	192	Drop route											network rationalisation
4/3/2007	195	Appoint acting CEO								HR-Exec			
12/1/2006	270	Add 777								HR-Pilot			
4/18/2006	514	Partnering Mil-Com					Market alliance			MRO			
3/1/2006	81	Add route		Higher Transfer Traffic, Potential Market for shopping and sight seeing									
8/10/2005	166	CEO Resign								HR-Exec resign & move to orhter airline			
1/13/2005	316	Add Narrowbody AC (RFP)								Engine&AC, Consider both B&A			
1/11/2005	287	Spin-off, MRO								MRO			
9/22/2004	201	Drop routes								High Fuel Price/			high Operating Cost
7/7/2004	134	Add route	no AL operate										longterm bus plan
4/30/2004	104	Codeshare					Market Alliance						
4/26/2004	280	Drop & Add Routes		Demand growing fast(Dubai-London)		Gain UK Reg. approval @ Dubai							
3/9/2004	186	Add new seat class for long hual		Depend on Market Requirement for regional rutes	Install AC Interior, IFE								Longterm Bus. Plan
2/25/2004	343	React to LCC	Indirect&Direct (soon) Comp with LCC	Diff. Demand-J & Y class, Y class with < 2.5 flight hours		Liberal ASA					Geographic		

Date	No. of Words	Action	Competitive	Market	Technology	Regulatory	Cooperative	Distribution	Infra/Resources	Supplier	Broad	Other	Internal
2/25/2004	342	Spin-off, MRO											
2/24/2004	121	Contract MRO					Strong=Long relationship			MRO-Engine			
7/18/2003	84	Codeshare					Market Alliance						
7/17/2003	76	Reinstate routes		Business recovery							SARS		
6/27/2003	165	Add route				Open-sky ASA with NZ							long term bus. Plan, additional pax services
5/19/2003	100	Launch FFP		New products									long term bus. Plan, additional pax services
4/28/2003	589	Approve Long term Bus Plan		Regional Comp with LCC									Last year lost
4/22/2003	93	Cut Services flight		Pax demand drop							SARS outbreak		
3/14/2003	178	Reappoint Exec											new plan
12/9/2002	93	Set lease/drop order AC			A319 Greater efficiency					Leaser & Manufacturer			
12/4/2002	195	Buy maintenance software			Maintenance Software					Boeing Av. Service enterprise-			
8/5/2002	298	Appoint new CEO								HR-Exec			need for outside professional with commercial airline experience
3/26/2002	267	Lay off, Cut cost				Gov order to stand on its own							continuous loss
3/7/2002	324	Launch booking site						invest in ZUJI(Online travel booking service					
3/1/2002	84	Contract Sabre			Software-Airline solution					Sabre-Consulting and software services			
1/7/2002	142	No service cuts planned		air travel no drop							Terrorist attack		
10/10/2001	69	Add route								Airport-use new one, not the old one most carrier favoured			
2/26/2001	210	Sub Co.-Contract GDS			GDS					Abacus selected as GDS provider			
1/18/2001	333	Sub Co.-JV with Travelocity			Online Travel Service Online		Joint develop new firm	New firm serve Airline's Distribution					
46	9034		3	8	9	4	7	2	2	18	4	0	18