Examining the Factors which Influence Performance Measurement and Management in the Thai Banking Industry: An Application of the Balanced Scorecard Framework

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This thesis is presented for the degree of Doctor of Philosophy of Murdoch University

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I declare that this thesis is my own account of my research and contains
as its main content work which has not previously been submitted for a
degree at any tertiary education institution

..............................
Sriwan Tapanya
ABSTRACT

Performance measurement is critical to achieving a firm’s objectives, translating strategy into action and monitoring progress. Selection of a performance measurement system involves a complex interplay between strategy, a firm’s internal and external environment and determination of the relative importance of various measures of performance.

This dissertation examined the factors which influence performance measurement systems within the context of a highly uncertain and rapidly changing environment via the application of the Balanced Scorecard framework. This framework is a strategic management system and its four pillars of measurement—financial, customers, learning and growth, and internal business process - are influenced by the vision and strategy adopted by the specific organisation.

Through a series of qualitative and quantitative studies in the Thai banking industry post the 1997 Asian financial crisis, this dissertation shows that institutional forces play a pivotal role in the choice of performance measurement systems, irrespective of strategic orientation and/or firm ownership.

Specifically, three studies are presented to support this argument. The first study uses the Miles and Snow (1978) typology to identify the strategic orientation of the Thai banks in order to make some predictions about the type and number of performance measures utilised by these banks. Results from this study show that bank managers
identified their banks’ strategy as prospector, defender or analyser irrespective of firm ownership. This outcome drives the focus of study two.

Study two is a two-part approach examining the forces which have influenced performance measurement in Thailand’s banks via both in-depth interviews conducted with 24 branch managers and the administration of a survey to 60 branch managers. Results from both studies suggest that coercive and mimetic forces play a pivotal role in the choice of performance measures. In particular, the study demonstrates that coercive forces at play within the industry put pressure on the banks to focus on financial measures, despite the increased awareness that to remain competitive both types of performance measures are needed.

The final study examines whether the focus on financial indicators has impacted upon the non-financial measure of customer satisfaction for the banks, particularly as the Balanced Scorecard approach suggests utilising multidimensional performance measures to achieve the best performance outcome for the firm. Results from this study suggest that most customers are not satisfied with firm performance and concludes that there is a need, irrespective of social network forces to focus on both financial and non-financial performance indicators.

These outcomes have both theoretical and practical implications. From a theoretical point of view, this thesis posits that coercive, mimetic and normative forces need to be included in frameworks such as the Balanced Scorecard, if the true picture of what factors influence performance management and measurement are to be understood. From a practical perspective, the thesis provides evidence to managers of the need to
examine performance measurement from a variety of perspectives in order to meet the needs of all stakeholders.
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Chapter 1

Contemporary Issues in Performance Measurement

1.1 Introduction

In an increasingly dynamic and information-driven environment, the quest by business leaders and management researchers for performance measures which reflect competitive productivity strategies, quality improvements, and speed of service is at the forefront of managing company performance (Johnson, 1996; Kaplan & Norton, 1996c, 2001a; Kim & Lim, 1988; McNamara, Deephouse, & Luce, 2003).

To be meaningful, company performance should be judged against a specific objective to see whether the objective is achieved. Without an objective, a company would have no criterion for choosing among alternative investment strategies and projects (Armstrong, 2000; Chang, 1999; Eccles, 1991).

For instance, if the objective of the company is to maximize its return on investment, the company would try to achieve that objective by adopting investments with return on investment ratios greater than the company's current average return on investment ratio. However, if the objective of the company were to maximize its accounting profits, the company would adopt any investment, which would provide a positive accounting profit, even though the company might lower its current average return on investment ratio (Atkinson, Waterhouse, & Wells, 1997; Bennis & Mische, 1995; Birch, 1998; Kaplan & Norton, 1992). Performance measurement is important for
keeping a company on track in achieving its objectives (Armstrong, 2000; Atkinson & Epstein, 2000; Frigo, Pustorio, George, & Krull, 2000; Kaplan et al., 1992)

The selection of the most appropriate performance indicators is however, an area with no defining boundaries as there are a number of purposes to which performance measurement can be put, although not all performance measurement can be used for all purposes (Fitzergerald, Johnston, Brignall, Silveston, & Voss, 1993).

Even though individual firms tend to utilise firm-specific performance indicators appropriate to their needs, for many firms the main performance indicators would typically include some combination of financial; market/customer; competitor; human resource; internal business process; and environmental indicators (Barsky & Flick, 1999; D'Souza & Williams, 2000; Eccles, 1991; Hofféctker & Goldenberg, 1994; Johnson & Kaplan, 1987; Kaplan, 1983).

More often than not however, performance measurement has relied on financial or accounting-based measures, despite the drawbacks associated with such an approach. Specifically, the use of financial measures alone has serious limitations because of their inherently backward-looking nature, their limited ability to measure operational performance and their tendency to focus on the short-term (Ittner, Larcker, & Rajan, 1997; Kaplan et al., 2001a).

The reliance on financial measures alone, therefore, to present the true picture of organisational performance, is in itself backward looking, especially as industries and firms are confronted with increasing expectations from a variety of stakeholders. As a
result, an organisation requires more from its performance measurement system than ever before (Becker & Gerhart, 1996; Hoeffctker et al., 1994; Kaplan et al., 2001a; Keating, 1997; Lambert, 1998).

Several researchers have identified that the selection of performance measurement indicators should be:

1. Driven from strategies and provide a linkage between business unit actions and strategic plans;
2. Hierarchical and integrated across business functions;
3. Supportive of the company’s multidimensional environment (internal or external and cost-based or non cost-based); and
4. Based on a thorough understanding of cost relationships and cost behaviour (Brown & Mitchell, 1993; Euske, Lebas, & McNair, 1993; Kaplan & Atkinson, 1989; McKensize & Shilling, 2000; McMann & Nanni, 1994).

Additionally, the method of monitoring performance should be dynamic in order to adapt to internal and external changes. In response to these recommendations, a number of frameworks that adopt a multidimensional view of performance measurement have been developed, most notable of which has been the Balanced Scorecard (BSC) developed by Kaplan and Norton (1992, 1996).

The Balanced Scorecard addresses the need for multiple measures of performance and provides a strategic framework, which specifically encourages the use of both financial and non-financial measures along four perspectives - financial, customers,

In both research and practice, the BSC has received much attention, particularly as a tool for driving unit level strategy within many industries, including hospitality, health, manufacturing and banking (Ashton, 1998; Beechey & Garlick, 1999; Birch, 1998; Chow, Ganulin, Haddad, & Williamson, 1998; Kaplan et al., 2001a). According to Kaplan and Norton (1996, p.2) "the balanced scorecard translates an organization’s mission and strategy into a comprehensive set of performance measures and provides the framework for strategic measurement and management".

On the outset therefore, the BSC appears to have all the answers for choosing the most appropriate measures of company performance, which are governed by the organisation’s strategic orientation and external competitive environment. The success of the BSC relies on a transparent and well-defined strategy as the basis for the development of specific and relevant performance measures.

Although the BSC, along with many other perspectives, acknowledges that firms respond to the environment they face in developing their strategy and ultimately performance measurement system, institutional theory specifically asserts that the social network in which firms operate exerts an equally strong hold on the decision-making practices of the firm (DiMaggio, 1983).

For instance, it is likely that for firms operating in highly uncertain environments, for example, the choice of performance measures may be influenced by choices made by
industry leaders as a means of reducing uncertainty and enhancing legitimacy (mimetic isomorphism) (DiMaggio & Powell, 1991a; Greve, 2000; Haverman, 1993). For firms operating within institutional environments, such as banking, accounting, insurance and the like, shared norms and behaviours may dictate the types of performance measures used (normative isomorphism) (DiMaggio & Powell, 1983; DiMaggio et al., 1991a; Gupta, Dirsmith, & Fogarty, 1994; Heverman, 1993; Hussain & Gunasekaran, 2002a). For firms operating in environments where there is a pressure to conform to rules and practices, performance measurement may be influenced by the dictates of supervisory bodies (coercive isomorphism) (DiMaggio et al., 1991a; Greve, 2000; Haverman, 1993).

Therefore, it appears that if organisations are seeking to utilise the BSC or similar frameworks to develop the most appropriate measures of performance, coercive, mimetic and normative forces, along with strategic orientation, need to be factored into any analysis in order to gain a true picture of what factors influence performance measurement and management.

Hence, it is the purpose of this dissertation to examine the role that institutional forces play in the choice of performance measurement systems, via the application of the BSC framework in an industry where the institutional forces mentioned above are at play.
1.2 Study Background: The Thai Banking Sector

The Thai banking industry was chosen as the industry of study to examine the influence of institutional forces on the performance measurement system because of the many changes that have taken place in the industry as a result of the 1997 Asian financial crisis and the International Monetary Fund’s (IMF) bail-out programme.

Thailand is situated on the Southeast Asian mainland and, although not quite ready to join the four “Asian tigers” (Hong Kong, Singapore, Korea and Taiwan), is often described as a tiger “cub” because of its remarkable record of high and sustained economic growth (Abe, 1999; Bartholomew & Wentzler, 1999; Vajragupta & Vichyanond, 2000). During the past four decades, commercial banks have been the main engine for generating economic activity in Thailand by performing the dual role of mobilising savings and providing funds for day-to-day business operations and for production (Asiamoney, 1994/1995; Board of Investment of Thailand, 1997; Danise, 1996).

Prior to the Asian financial crisis of 1997, the Thai banking industry consisted of just over a dozen banks, virtually all which were family owned (Hewison, 2000; Vajragupta et al., 2000). By any measure - assets, lending or deposits, financial power was heavily concentrated toward the banks, and especially towards the largest banks. The three largest banks have long accounted for more than half of the system and were consistently ranked amongst the top fifteen most profitable banks in the world (Asiamoney, 1994/1995; Gup & Nam, 1999; Montreevat & Hew, 2003).
These big banking families established de facto monopoly positions within the financial industry by expanding their own core banking businesses and by forming conglomerate structures through their control of other financial institutions (at some point, virtually all of the Thai commercial banks also owned finance companies, securities firms and insurance businesses) (Montreevat et al., 2003; Skully & Viksnins, 1987; Tan, 1996).

Within Thailand’s banking sector, described as a model of “crony capitalism” (Asiamoney, 1994/1995; Bartholomew et al., 1999; Danise, 1996; Gup et al., 1999), the banks only lent to their friends or associates in industry and commerce and very little bank credit went to Thailand’s vast numbers of rural farmers or to those without relationships or influence. This system dictated development of the corporate sector and resulted in a structure where the finance and non-finance sectors were inextricably and directly linked (Tan, 1996; The Nation, 1997; Unger, 1998), causing new foreign or domestic entrants to be virtually shut out (Vajragupta et al., 2000; Vatikiotis, 1998; Wall Street Journal, 1998). The effective barrier to new entrants, although never formally enforced, combined with the fact that foreign banks already operating in Thailand were prevented from moving into branch banking, meant that local banks were protected from international competition in what was a captive and assured market.

The collapse of the Thai economy in 1997 was a case study of interest to many countries and organisations because of the swiftness and magnitude of the collapse and its role as catalyst for the financial crisis that spread through much of the developing world, particularly in Asia, and raised the real possibility of global
recession. There are many, often conflicting, explanations for the Asian financial crisis of 1997 (e.g. Gasbarro, Sadguna, & Zumwalt (2002), Hewison (2000), Montes (1998), and Robinson (2000)). However, Neiss (1997) argues that the crisis stemmed from two generic factors: the gradual erosion of banking soundness through imprudent lending policies; and the rapid accumulation of short-term foreign borrowings by banks and corporations.

In Thailand, whatever the underlying causes, the severe downward pressure on the Baht (which dropped from Bt25 to over Bt40) (Schwebach, Olienyk, & Zumwalt, 2002) led government regulators to shut down fifty-eight of the ninety-one companies in the finance and securities sector. The crisis rapidly spread to smaller banks and the government was forced to intervene further (Bartholomew et al., 1999; Casserley & Gibb, 1999; Vatiwutipong, 2000).

As a result, virtually every bank in Thailand needed to restructure (Asiamoney, 1994/1995; Hewison, 2000; Kim et al., 1988). Before the financial crisis, Thailand had fifteen commercial banks and ninety-two finance companies. By 1999, Thailand’s financial sector was left with just thirteen domestic banks (virtually all of which required one form of government intervention or another) and just twenty two finance and securities companies (Jomo, 1998; Phongpaichit & Baker, 2000).

Bank restructuring came in the form of guidelines set out by the International Monetary Fund (IMF) bail-out programme. The IMF package included loans and standby credits in addition to technical assistance. The terms and conditions agreed by the Thai government regarding the banking sector and recovery plan involved
balancing the budget, retaining the managed float of the Thai Baht, and closing insolvent financial institutions. The plan also included strengthening bank regulation and supervision, eliminating government support of ailing institutions, and ending subsidies to state enterprises. Thailand also pledged to pass legislation concerning amendments to its bankruptcy, re-organisation, and foreclosure laws that would provide a foundation for debt restructuring (Bangkok Post, 1999; Vajragupta et al., 2000; Vatiwutipong, 2000).

A key element of Thailand’s plan to re-capitalize the banking sector was opening the long-closed market to foreign banks. By opening this door, the government explicitly accepted the need to fundamentally change the system of family-owned banks and their tradition of doing business through personal connections, and forced local banks to play at an international level (Unger, 1998; Vajragupta et al., 2000).

As a result, banks in Thailand could no longer rely solely on traditional ways of doing business and thoughts of ‘survival’ (Unger, 1998). Rather, the banks had to take-on a more proactive approach, focusing on higher-margin and consumer-oriented businesses, and technology and products to make banking more efficient and convenient, in order to compete with the foreign-owned banks (Tan, 1996; The National Identity Board, Office of the Prime Minister, 1995). Thailand’s acceptance of the IMF bailout programme therefore had direct and significant consequences on the future of the country’s banking sector. Specifically, the ownership changes, that is the possibility of 100% foreign ownership, had significant implications for how both Thai-owned and foreign-owned bank’s managed their performance and their focus on performance indicators (Skully et al., 1987; Vatiwutipong, 2000).
This dissertation examines the banking industry in Thailand in the aftermath of the Asian financial crisis of 1997. Specifically it investigates whether there are differences in strategy and self-identification between Thai-owned banks and those banks which became foreign-owned; how such differences, if they exist, are reflected in the selection of performance measures; and how these matters, impact their customers within the social network in which the banks operate.

1.3 Dissertation Contributions

The dissertation makes both theoretical and practical contributions. In terms of practical contributions to the area of performance measurement, the use and relative importance of financial and non-financial measures will be highlighted. Firms are continuously struggling with the issue of performance measures (e.g. developing the right kind of measures and understanding their use). This dissertation can provide some direction to managers in three ways.

First, the reliance on the types of financial and non-financial measures that both private Thai-owned banks and foreign-owned banks use will be reported upon, within the social network in which the banks are operating. Second, the dissertation examines how managers at both Thai-owned banks and foreign-owned banks utilise these measures as a guide for their actions, which ultimately influence long-term growth and performance.
Third, this dissertation also examines the role of performance measurement from a strategic, social and operational perspective. Specifically, the role of strategic choice in influencing the focus on financial or non-financial performance indicators is assessed within the social network. Finally, although not its primary focus, this dissertation explores the external outcome of the interaction between strategic choice, social network and performance measurement as reflected in customer satisfaction.

From a research perspective, this dissertation provides an evaluation of the Balanced Scorecard framework as a tool which can assist organisations in developing a performance management framework. It specifically seeks to extend upon the BSC framework by positing that institutional forces play a major role in performance measurement and management. The dissertation goes further to suggest that institutional forces should form part of the core consideration of factors that influence performance measurement within the BSC framework. Although the findings of this study "...may not be strictly generalisable...the richness of the field data may offer insights that are applicable elsewhere" (Yin, 1989), particularly to other nations affected by similar circumstances.

1.4 Organisation of the Dissertation

This dissertation is organised in the following manner. Chapter two reviews the literature on performance management and measurement highlighting the need for organisations to utilise both financial and non-financial performance indicators. It also reviews the literature on the Balanced Scorecard (BSC) as a useful framework from which to develop such measures.
Chapter three identifies the role that organisational strategy, the external environment and institutional forces play in the selection of a performance measurement system, as well as providing an outline of the research design used to uncover the role that institutional forces play in the choice of performance measurement systems, via the application of the BSC framework.

Chapter four is the first of three empirical studies designed to examine the factors that influence choice of performance measures utilised within the Thai banking industry. It specifically seeks to identify the strategic orientation operationalised via the Miles and Snow (1978) typology framework by private Thai-owned and foreign-owned banks, as a first-step in examining the links between strategic orientation and choice of performance measures.

Chapter five explores the factors which have influenced the selection of performance measures in the Thai-owned and foreign-owned banks, before examining the types of performance measures utilised by the banks studied. Specifically this chapter seeks to examine if any significant differences exist between the types of measures used across the banks studied via the application of the BSC.

Chapter six is a supplementary study, which examines the fit between organisational strategy and social network on one facet of performance measurement. In particular an examination of the extent to which the results from chapters four and five influence the perceptions of customers is tested via a quantitative analysis of bank customer perceptions.
Chapter seven presents implications of the results and a summary of the findings from the three empirical studies. Study limitations are also presented along with an agenda for future research.
Chapter 2

A Multi-dimensional View of Performance Measurement: The Need for a Balanced Scorecard Approach

2.1 Introduction

Information about performance management is critical to the effective functioning of any business (Chandler, 1962a; Kaplan et al., 1992; McWilliams, 1996). However, what constitutes good performance and what constitutes good measures of performance are continuously being debated (Corrigan, 1998; Kaplan & Norton, 1998; Kimball, 1997; Landy & Farr, 1983; Maisel, 1992). For instance, do financial performance indicators provide the necessary information for operating within environments that are classified as turbulent, given that they are backward looking? (Armstrong, 2000; Barker, 1995; Kaplan, 1983). Is it important to utilise non-financial information for organisations that are facing changes in demand? (Chang, 1999; Kaplan, 1983).

In order to answer these questions and more, this chapter reviews literature on performance management and describes the factors that influence performance measures. In addition, why there is a need for organisations to focus on both traditional financial and non-financial indicators of performance in order to meet organisational objectives, irrespective of competitive environment, is reviewed. Specific frameworks, which can be utilised by organisations to measure performance in this way, are also reviewed, with a particular focus on the Balanced Scorecard
(BSC) as a measurement tool which meets the demands of contemporary organisations (Duursema, 1999; Ittner & Larcker, 1998a; Kaplan et al., 1992).

2.2 Role of Performance Measures in an Organisation

To function successfully in a business environment, an organisation depends upon the decision-making ability of its managers, who in turn, depend upon the availability of useable information (Banker, Devraj, Sinha, & Schroeder, 1997). Information about performance is important in different ways to the various stakeholders within a business. For example, owners and investors are interested in company performance to ensure that their investment decisions are correct, and, if not, to look for alternative investments. Managers look at the performance of a company's subunits as a way of prioritising the allocation of resources (Duursema, 1999; Euske et al., 1993; Fama, 1890; Lockamy & Cox, 1994; Tricker & Dockery, 1995).

In a more strategic sense, performance measurement is seen as an important way of keeping a company on track in achieving the company's objectives and as a monitoring mechanism employed by the owners of a company where ownership and management are separated (Baker & Wruck, 1989; Bushman, Indjejikian, & Smith, 1995; Delaney & Husekid, 1996; Huselid, 1995; Ittner & Larcker, 1998b; Kaplan, 1984; Lawler, Mohrman, & Ledford, 1992; Mayo & Brown, 1999).

If measures of performance are to be effective, the measures need to be performance-driven and linked with company strategy. This view is supported by a number of researchers who note that measures of performance need to be based on a company’s
strategic objectives in order for employees to understand and be committed to the achievement of those objectives (Becker et al., 1996; Hronec, 1993; Huber, 1990; John, Jacqueline, & Robert, 2002; Johnson, 1998; Kaplan, 1983; Kaplan et al., 2001a).

Specifically, D'Souza and Williams (2000), Euske et al. (1993), Kimball (1997) and Mayo and Brown (1999) argue that within the contemporary work environment, a good performance measurement system should be:

- Supportive and consistent with an organisation’s goals, actions, people/culture, and key success factors;
- Driven by the customer;
- Appropriate to the internal and external environment;
- Developed by a combined top-down and bottom-up effort;
- Communicated and integrated throughout the organisation;
- Focused more on managing resources and inputs, not just simply costs;
- Committed to providing action-oriented feedback; and
- Supportive of individual and organizational learning.

Although there is agreement that these types of characteristics will make for better performance measures (Devenport, 2000), how performance is actually measured is still a ‘black box’ for many organisations (Cross & Lynch, 1992; Eccles, 1991; ECSI, 1998; Frigo et al., 2000; Gering & Mhtambo, 2000a; Henerson, Morris, & Fitz-Gibbon, 1987), particularly as performance measures used in one company may not be appropriate for another company facing a different situation or different set of circumstances (Otley, 1980).
Defining performance for an individual company is highly dependent upon the company’s business objective and strategy and is therefore quite unique (Fitzergerald et al., 1993; Hoffectker et al., 1994; Kaplan et al., 1992; Kaplan et al., 1996b; Keegan, Eiler, & Jones, 1989). For many firms however, the main performance indicators would typically include some combination of indicators across two broad categories: financial indicators and non-financial indicators (Barsky et al., 1999; Brown et al., 1993; D'Souza et al., 2000; Eccles, 1991; Fitzergerald et al., 1993; Hoffectker et al., 1994; Johnson et al., 1987; Kaplan, 1983, 1984; Kaplan et al., 1996b, 2001a).

2.2.1. Traditional Financial Measures

The economic foundation of financial measures is reflected in the very definition of accounting as a “…process of identifying, measuring and communicating economic information to permit informed judgement and decisions by users of the information” (The American Accounting Association in A Statement of Basic Accounting Theory (ASOBAT), 1966, p.1). Various financial performance measures are intended to evaluate the effectiveness and efficiency by which operating divisions use financial and physical capital to create value for shareholders. They also provide expanded financial information to present and potential investors, and other interested users through the various components of quarterly and annual reports, including balance sheets, profit and loss statements and cash flow statements.

A variety of financial accounting measures of performance are used in order to provide such information. Some of the more popular measures include: earnings,
cash flow, return on investment (ROI), return on assets (ROA), return on equity (ROE), return on capital employed, earnings per share, price/earnings ratio, return on sales, asset turnover, overhead/sales ratio, etc. (Gumbus & Lyons, 2002; Ittner & Larcker, 2003; Kalagnanam, 1997; Kaplan & Klein, 1996a).

Return on investment (ROI) is calculated when an accounting measure of income is divided by an accounting measure of investment, with a positive ROI indicating that the return on a particular investment exceeds the firm’s cost of financing. Return on assets (ROA) is a profitability ratio calculated by dividing earnings before interest and taxes into total assets and is an indicator of a firm’s overall financial health. A firm with a higher ROA is able to raise money more easily and cheaply in securities markets because it offers prospects for a better return on investment (Copeland, Koller, & Murrin, 2000; Morin & Jarrell, 2001; Vance, 2003).

Asset turnover (ATO) is a measure of annual sales generated by each dollar of assets (sales/assets). Return on equity (ROE) is a profitability ratio of net profits divided by equity and provides shareholders with a comparative indicator of the return on their investment in the firm. Return on capital employed (ROCE) is based on pre-tax profits (net income for the US and Canada) plus interest, divided by capital employed at the beginning of the financial year (Copeland et al., 2000; Morin et al., 2001; Vance, 2003).

Other measures focus more on company sales, including return on sales and overall overhead/sales ratio. Measures relating to earnings per share and the price/earnings ratio (PE) relate directly to the firm’s share price. The price-earning ratio for a firm
stock is the market share price divided by the firm’s earning per share (most recently reported). It will vary with the market’s assessment of the risk involved (Copeland et al., 2000; Morin et al., 2001; Vance, 2003).

Despite their apparent objectivity, financial indicators are, fraught with a number of limitations, which need to be acknowledged. Perhaps most notable, as Beechey and Garlick (1999), Clarke (1997), and Hemmer (1996) point out, is that financial measures are backward looking and do not reflect the long-term and future consequences of managerial action. In a changing world it may well be wrong to assume that past results will be repeated as conditions change (Bazley, Hancock, Berry, & Jarvis, 1999). Ideally, financial accounting information is intended to report objectively the economic events of the firm. In reality, however, financial statements are management assertions within information required by law, institutional best practice and any additional information which the company wishes to supply, thereby introducing considerable potential for subjectivity (Angus-Leppan, 1997; Brailsford, Heaney, & Bilson, 2004; Jones, 2002).

In fact, the actual selection of accounting policies may reflect the objectives of the company’s management in ways that may or may not be aligned with the interests of other stakeholders. Compensation plans and bonus schemes are a case in point (Eccles, 1991). Although intended to align the interests of management more closely to the shareholders, the actual result may be to merely favour one method of accounting over another (i.e., those methods which are most likely to demonstrate results that maximise payouts to the managers overseeing the accounting).
Using operating profit or other financial indicators as the sole measures for incentive purposes, for example, may encourage managerial focus on the short-term and may distort the decision-making process (Ittner et al., 2003; Kalagnanam, 1997; Kaplan et al., 1996a). For instance, research and development spending reduces current-period accounting earnings yet generates substantial, albeit uncertain, returns in the future (Duursema, 1999; Ennew, Reed, & Binks, 1993). As a result, managers may be tempted to cut research and development to improve their accounting-based performance even though it will sacrifice the long-term prospects (Cowen & Hoffer, 1982).

Acknowledgement of these limitations has led to views that the financial accounting model should be expanded to incorporate the valuation of the company's intangible and intellectual assets, such as high-quality products and services, motivated and skilled employees (via the measurement of human capital), responsive and predictable internal processes, and satisfied and loyal customers in order to reflect the assets and capabilities that are critical for success in today's and tomorrow's competitive environment (Burr & Girardi, 2002; Kaplan & Atkinson, 1998; Lev & Zarowin, 1998). These types of performance measures can be categorized as non-financial.

2.2.2 Non-Financial Measures

Financial or accounting measures are only one source of information available to decision-makers. In this information-age, many companies are beginning to place greater emphasis on non-financial measures such as customer satisfaction, innovation measures, on-time delivery, market share, product/service quality, and productivity
The emergence of non-financial indicators as important to monitoring company performance reflects the realisation that much of management is focussed on intermediate outcomes, such as customer satisfaction or quality, that are best captured by non-financial performance measures (Barua, Kriebel, & Mukhopadhyay, 1995; Johnson and Kaplan, 1987). Others suggest that non-financial measures are superior to short-term financial measures as indicators of progress towards achieving long-term goals (Banker, Potter, & Srinivasan, 1998; Beechey et al., 1999; Buckmaster, 2000; Ittner et al., 1998a; Kalagnanam, 1997; Kaplan et al., 2001a).

In both practice and research, the use of non-financial measures to track performance is becoming more evident (Kaplan et al., 2001a). Ittner et al. (1997), in their study of the use of non-financial measures in executive compensation at 317 companies, found that most companies used both non-financial measures and financial measures in determining bonuses for senior executives. Keating (1995) also reported widespread use of operational non-financial indicators in evaluating the performance of division managers at 78 medium-sized U.S. public firms.

Similarly, a study by Hiromoto (1988) found increasing use of non-financial indicators for performance measurement at companies in Japan, while the American Quality Foundation and Ernst & Young cited a dramatic increase in the use of quality measures in setting compensation for senior managers in the U.S., Japan, Germany and Canada (Hauser, Simester, & Wernerfelt, 1994).
A number of factors account for the increasing emphasis on non-financial indicators. Non-financial measures are believed to be better indicators of managerial effort and therefore valuable in evaluating managerial performance (Johnson, Anderson, & Fornell., 1995; Kaplan & Norton, 2001c). Non-financial measures of performance are also believed to be better predictors of long-term performance, and therefore are used to help refocus managers on the long-term aspects of their actions (Johnson et al., 1987; Kaplan et al., 1996b; Lawler et al., 1992).

To some, the appeal of non-financial measures is further attributed to the fact that they deal with causes and not effects (Ittner et al., 1998a; Johnson et al., 1987; Keating, 1995; Lambert, 1998). Profit and other financial measures show the effects of non-financial activities and achievements, whereas, operational measures of customer satisfaction, internal processes, and the organisation's innovation and improvement activities are believed to be the drivers of future financial performance (Cross et al., 1992; Eccles, 1991; Euske et al., 1993; Kaplan et al., 1996c; Rees & Sutcliffe, 1994; Singleton-Green, 1993). Non-financial indicators, such as orders received, unfilled orders and on-time shipments may anticipate subsequent financial performance results (Rees et al., 1994).

As a result, non-financial measures may also be an important source of information on firm failure (Kalagnanam, 1997; Kaplan et al., 1996a) and less susceptible to manipulation (Singleton-Green, 1993). Non-financial indicators are generally not dependent on managerial judgment as in allocations and valuations and therefore, are more likely to be timely, reflect true processes, and be understood (Rees et al., 1994).
However, perhaps the most compelling reason for an increase in reliance on non-financial measures to track performance rests on the nature of the current, fast changing technological environment and the need for organisations to leverage key capabilities in order to achieve competitive advantage (Eccles, 1991; Porter, 1992; Prahalad & Hamel, 1990).

In practice however, the measurement of these types of capabilities have often involved some effort to give financial characteristics to non-financial indicators. For instance, intellectual capital is measured as the difference between the firm’s market and financial or book value; Tobin’s q ratio and the calculated intangible value (CIV) (Dzinkowski, 2000; Larsen, Bukh, & Mouritsen, 1999). But this approach poses its own set of problems (Burr & Girardi, 2002).

Given these issues, reliance on purely non-financial indicators of performance alone is not the norm. Rather, in order to gain access to the benefits that both types of measures can provide, multiple measures of performance are widely encouraged (Kaplan et al., 2001a; McKensize et al., 2000; Olve, Roy, & Wetter, 1999; Reynierse & Harket, 1992; Stivers, Hall, G., & Smalt, 1998; Tricker et al., 1995).

### 2.2.3 Multiple Measures of Performance

It is increasingly recommended that managers (and researchers) expand performance measurement systems to include non-financial information, such as productivity and quality data whilst retaining the traditional financial ratios (Kaplan, 1983; Kaplan &
Norton, 1992) as no one single measure provides consistent evidence of the correlation between all stakeholders’ satisfaction and firm performance (Brossy & Balkcom, 1994; Otley, 1980, 1994).

In particular, companies operating within the service industry cannot rely solely on financial performance or non-financial performance indicators (Ittner et al., 1998a; Kaplan et al., 1996a; Lambert, 1998; Maisel, 1992; McKensize et al., 2000; Nagar, 1999; Rolph, 1999; Singleton-Green, 1993; Sinkey, 1992).

This new emphasis on utilizing both financial and non-financial indicators has led to the development of approaches using multiple measures of performance, such as Benchmarking, Total Quality Management (TQM) and The European Foundation for Quality Management (EFQM), the Balanced Scorecard (BSC), to name a few.

Benchmarking can be seen as the systematic comparison of elements of the performance of the company against that of other companies (Peters, 1994; Thor, 1994). Benchmarking can be internal or external. Internal benchmarking compares the internal workings of one department, process, or practice within the organization to another, while external benchmarking compares a firm to its peers, chief competitors, or other organizations (Peters, 1994; Thor, 1994). According to Thor (1994) and Peters (1994), benchmarking can fall into three broad and, at least partly, overlapping categories: strategic, process and statistical. Strategic benchmarking seeks to compare and contrast the strategic mission and direction of the company. Process benchmarking, by contrast, looks at the methods, procedures and the business processes of the organisation. Statistical benchmarking is about performance
measures and is used to differentiate, compare and/or monitor performance generally on a strategic, as opposed to operational, level (Peters, 1994).

But, benchmarking is generally based on comparisons of quantitative data that may cover a wide range of financial and non-financial measures, such as return on investment, customer satisfaction and quality performance. Quantitative analysis alone, however, often leads to incomplete analysis (Jeneson, 1995) in the absence of qualitative analysis that explains the importance or relevance of the measures used.

Total Quality Management (TQM), as stated by Crosby (1979), Deming (1986), Juran (1981) and many other TQM specialists, involved four important elements, which revolutionised quality in the market place. First, the upper management had to make a commitment to quality and ensure that quality was emphasised throughout the organisation. Second, all levels and all functions were to receive quality training at some specified level of expertise. Third, quality improvement was to be a continuous process as later defined by the Deming wheel. Finally, the customer was to be the most important concern in the quality loop. This emphasis on quality at all levels meant a change in focus from only financially driven measures to examining factors that influence these measures.

In both the TQM and benchmarking management techniques, there are references to: continuous systematic improvement, meeting customer needs, performance standards, understanding industries' best practices, concurrent engineering, and measure of targets (Swift, Gallwey, & Swift, 1995). For companies that used the TQM programme, benchmarking criteria have become a key element of that programme.
The European Foundation for Quality Management (EFQM) was launched in 1991 (Li & Yang, 2003). The philosophy underlying the EFQM model is that customer satisfaction, employee satisfaction and the beneficial impact on society are achieved through leadership. The EFQM model seeks to drive policy and strategy, employee management, resources and processes, leading to excellence in business results.

Organizations using the EFQM model accept its underlying premise that performance measurement is important and multidimensional performance measures must be continuously refined and improved (Thomas, 1995).

However, one of the most popular approaches which asserts the need for multiple performance indicators is the Balanced Scorecard (Kaplan et al., 1992).

2.3 The Balanced Scorecard (BSC) Framework

The BSC provides a framework, which encourages the use of both financial and non-financial measures of performance, allowing the organisation to pinpoint its strategic objectives via balancing four perspectives - financial, customers, internal business processes, and learning and growth - to measure firm performance (Kaplan et al., 1992; Kaplan et al., 1996b). The effectiveness of the balanced scorecard is based on its ability to translate a firm's mission and strategy into a comprehensive set of performance measures (Kaplan et al., 2001a).
Introduced by Robert Kaplan of Harvard Business School, and David Norton, of Renaissance Worldwide in 1992, the balanced scorecard (BSC) framework is a system that measures both current performance of the firm and drivers of future performance. Specifically, the BSC framework seeks to identify the critical economic activities of the company that generate current and future cash flows and to build a causal model of the process by which the company generates profits by focusing on both financial and non-financial indicators of firm performance.

The balanced scorecard approach involves identifying the key components of operations, setting goals for them, and then finding ways to measure progress toward achieving those goals. Taken together, the measures provide a holistic view of what is happening both inside and outside the organisation or operational level, thus allowing each constituent of the organisation to see how their activities contribute to attainment of the organisation's overall mission.

Such a system of measures is therefore driven by a strategy where success is defined and a method of achieving it is established. Management works out how to monitor progress and establishes the investment needed to make this self-sustaining. 1

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et al., 2001a; Maisel, 1992; McMann et al., 1994; Nanni, Dixon, & Vollmann, 1990; Newing, 1995; Olve et al., 1999; Smith, 2000). As Richard Quinn, vice president of quality at Sears, has observed, "You simply can't manage anything you can't measure" Lingle and Schiemann (1996, p. 34).

According to Kaplan and Norton (1996) the BSC can help the organisation to clarify its corporate vision and strategy; communicate and link strategic objectives and measures to plan; set targets and align strategic initiatives; and to enhance strategic feedback and learning.

The framework is based on the premise that those properties of the financial accounting system such as conservatism, transaction emphasis, and dollar base unit of measurement, prevent it from measuring the key activities of the company adequately. Rather, Kaplan and Norton (1992) suggest supplementing the traditional financial measurement system with non-financial measures of customer relations, internal business processes, and organisation learning and growth in order to specify what the organisation expects to receive from and give to the various stakeholder groups in exchange for those groups’ continued contribution toward the organisation’s pursuit of its objectives. Figure 2.1 identifies relationships and premises of the BSC.

The BSC is explicitly based on the growing acceptance of two related premises. The first is that future success involves providing superior value to customers, employees, and shareholders. The second is that attracting shareholder funds, employee talent, and customers are the three fundamentals of sustainable competitive advantage and

superior returns to investors (Hoffeckter et al., 1994; Hogan, Gressle, & Neyland, 1999; Huselid, 1995; Ittner et al., 1998a; Johnson, 1998; Kaplan et al., 1996b; Maisel, 1992; McWilliams, 1996; Newing, 1995). Within the BSC framework, four perspectives - financial, customer, processes and learning and growth - represent the views of four essential stakeholders in any business.

**Figure 2.1 The Balanced Scorecard Framework**

All stakeholders have choices - shareholders can sell stock; customers can buy from another provider; and employees can work for another company. If value is created for each of these three essential stakeholder groups, the company will be more likely to produce superior return for investors for a longer period (Lockamy et al., 1994; Nanni et al., 1990; Reynierse et al., 1992; Smith, Kendall, & Hulin, 1975; Stevenage, 1998; Tang & Fuller, 1995).

A company can ignore the expectations of one of its stakeholders and still succeed in the short run. But in the long run, the business cannot ignore any of these stakeholders (Atkinson et al., 1997; Barsky et al., 1999; Becker et al., 1996; Beechey et al., 1999; Bittlestone, 1998; Chow et al., 1998). This is because all three stakeholders are interrelated. Employee attitudes and behaviours impact upon the level of customer satisfaction and retention, while customer attitudes and behaviours influence shareholder satisfaction and retention. Finally, shareholder satisfaction affects employee satisfaction through bonuses, stock options, or further investment in employee growth and development (Bettencourt & Brown, 1997; Johnson, 1998; Kaplan et al., 1998; Lust, 1986; McCarthy, Alan, Compton, & Terence, 1993).

Although the selection of relevant performance measures will depend upon the specific situation facing each company, the BSC is perhaps most groundbreaking in stressing the necessity of both financial and non-financial indicators and putting them on a more or less equal footing (Hoffectker et al., 1994; Kaplan et al., 1992; Kaplan et al., 1996b; Lipe & Salterio, 2000).
2.3.1 The Four BSC Pillars

Within the BSC framework, four categories of measures are identified in order to achieve balance between the financial and the non-financial, between internal and external and between current performance and future performance (Kaplan et al., 1992). The four perspectives: financial, customer, processes, and learning and growth (as represented in Figure 2.1), represent the views of four essential stakeholders in any business.

The financial perspective, as reflected in financial measures, is the most traditional and still most commonly used measurement tool. Financial measures are valuable in conveying the readily measurable economic consequences of action already taken. Financial measures are typically focused on profitability-related measures (the basis on which shareholders, in turn, typically gauge the success of their investments), such as return on capital, return on equity, return on sales, etc., (Kaplan et al., 1992; Lipe et al., 2000).

These measures are necessary for any organisation trying to measure performance for a number of reasons. First, reporting of financial measures is expected and governed under law. Second, reporting of certain types of financial measures of firm performance is required by institutional bodies. For instance, in the case of Thailand there are three bodies that are involved in accounting: the government, which makes laws, registers business etc.; the Institute of Certified Accountants and Auditors (ICAAT) which formulates accounting standards; and the capital market or Stock Exchange of Thailand (SET) authorities, which specify listing regulations and monitor
corporate compliance with accepted standards and practice (Angus-Leppan, 1997, p. 392). Third, reporting of financial measures is expected from all stakeholders and is ingrained in history as a way of framing and comparing organisational performance.

The customer perspective typically includes several core or general measures derived from the desired successful outcomes of a well-formulated and implemented strategy. These core measures may include overall indicators such as customer satisfaction, customer complaints, customers lost/won, sales from new products, and on-time delivery (Kaplan, 1997, 1998; Light, 1998). Measures related to customers include results from customer surveys, sales from repeat customers, and customer profitability.

The customer perspective is a core of any business strategy which describes the unique mix of product, price, service, relationship, and image that a company offers (Kaplan et al., 2001c). The customer perspective defines how the organisation differentiates itself from competitors to attract, retain, and deepen relationships with targeted customers. The value of the customer perspective is crucial because it helps an organisation connect its internal processes to improved outcomes with its customers (Kaplan & Norton, 2001b).

Of the four BSC perspectives, the customer is at the core of any business and is crucial to long-term improvement of company performance (Kaplan et al., 1992; Pineno, 2002). Heskett et al., (1994) point out the customer-based virtuous circle, whereby investment in employee training leads to improved service quality; which in
turn results in higher customer satisfaction leading to increased customer loyalty, which boosts revenues and margins.

**Internal business process measures** relate specifically to the operational processes of the business unit. Internal business process measures represent the perspective of the operations management within the BSC model. The internal process perspective is based on the notion that to satisfy customers and earn a financial return, the business must be efficient and effective at what it does. The internal process measures are typically based on the objective of most efficiently and effectively producing products or services that meet customer needs. For example, such measures may include order conversion rate, on-time delivery from suppliers, cost of non-conformance, and lead-time reduction (Kaplan et al., 1996b).

**Learning and growth measures** represent the employees as part of the four pillars used to measure performance with the BSC framework. The innovation and learning perspective is all about developing the capabilities and processes needed for the future. In the banking industry, for example, for a business to succeed not only must it effectively carry out daily transactions but it must also continually improve in terms of the value and cost of its offerings. This innovation process can be measured in a variety of ways. These may include the speed of transactions, or the number of people involved in a particular transaction, etc. Again, the choice depends on what is critical for the success of each particular business (Kaplan et al., 1996a). Acknowledging that performance measures relating to learning and growth are the most difficult to select, Kaplan and Norton (1996b, p.127) suggest measures of
employee capabilities, information systems capabilities, and employee motivation and empowerment as examples.

An example is presented below (Figure 2.2) of the type of measures associated with each of these pillars used by Chemical Bank when it adopted the BSC to communicate and implement a new retail strategy in the face of declining margins and increasing competition (Kaplan & Klein, 1996, p. 1).
Figure 2.2 Types of Measures Associated with each BSC Pillar

2.3.2 Application of the BSC

Research evidence generally supports the BSC’s potential applicability to company performance in a wide range of business sectors (e.g. FHC Corporation, Rockwater Engineering, Apple Computer Company, Advanced Micro Devices, DHC Chemical Division, NatWest Bank, Chemical Bank, Mobil’s US Marketing and Refining Division (Chang, 1999; Corrigan, 1996; Dinesh & Palmer, 1998; Kaplan et al., 1996b; Newing, 1994). About 50% of Fortune 1,000 companies in North America and about 40% of those in Europe use the Balanced Scorecard tool (Fortune as cited by Gumbus and Lyons, 2002) while thirty percent of Australia's top 1000 companies are reported to use BSC (McCunn, 1998).

A survey undertaken by Blundell et al., (2003) in New Zealand indicates that more than 60% of the New Zealand Stock Exchange’s top 40 companies use a balanced scorecard at the organisational or division levels. Interestingly, the survey reveals that non-financial performance measures continue to lag financial measures in perceived importance among surveyed companies. KPMG’s 1998 model annual report recommended using the BSC to disclose non-financial performance and is believed to have been the first significant reference to BSC in New Zealand (Kane, 1998).

The scorecard can be used at different levels: throughout the total organisation, in a subunit, or even at the individual employee level as a "personal scorecard". A wide range of empirical research supports the effectiveness of the BSC in translating strategic objectives into relevant performance measures that drive performance toward those objectives.
There is broad consensus that the BSC is most effective when used to drive organisational change and in focusing and sustaining revitalisation and continuous improvement efforts (Chang, 1999; Hofffectker et al., 1994; Kaplan et al., 1998, 2001a; Maisel, 1992; Newing, 1994).

Kaplan and Norton (1996) found that the Chemical Bank’s use of the BSC in the aftermath of its merger with Manufacturers Hanover Corporation to intensively focus its retail efforts on target customers allowed it to achieve the expected merger cost savings while suffering little attrition among target customers and, in fact, growing revenue from those target customers. As a result, by 1996, the bank’s retail profits had increased 19-fold over the base year of 1993.

The experience of Brown & Root Energy Services’ Rockwater Division, an undersea construction company, demonstrates how the BSC can contribute to a successful strategic reorientation (Kaplan et al., 2001a). To stem losses, a new division president, used the BSC to build management consensus for a change in strategy from being the low-cost provider to adding value to customer relationships. By 1996, three years after introduction of the BSC, Rockwater had improved to first place in its market segment in terms of both growth and profitability. Norm Chambers, the Rockwater president who introduced BSC noted: “The BSC helped us improve our communication and increase our profitability” (p. 6).

Kaplan and Norton (2001a) found similar results at AT&T Canada, Inc. (then known as United Communication, Inc.), where a new CEO was able to bring the company
back from the brink of bankruptcy through a concerted focus on process improvements and a new strategic direction, underpinned by a BSC strategic management system. In the mid-90s, prior to introduction of the BSC, the company had suffered huge losses, was on the verge of defaulting on its debt obligations and ranked near the bottom in surveys of employee satisfaction. By 1998, the company was generating positive cash flow even as long-distance phone charges continued to drop rapidly, the customer base had more than doubled, revenue per employee had jumped more than 35% in three years, and the company ranked in the top 10% in a 1998 survey of employee satisfaction at 500 North American companies employee satisfaction. The turnaround set the stage for AT&T Canada’s 1999 $7 billion merger with MetroNet Communications Corporation.

Gumbus (2002) showcases Philips Electronics Ltd., as an organisation utilising the BSC to improve its overall performance and become a $1 billion US company. Philips Electronics used the BSC as a tool to align its strategies and to gain the commitment and participation of management and employees in achieving the firm’s objective. Former vice president of quality and regulatory affairs at Philips Medical Systems North America (PMSNA) Chris Farr says” ”Employees have helped to create measures that are meaningful to customers and to business" (Gumbus and Lyons, 2002, p. 47). By creating a common knowledge base, the BSC also helped the company to create a worldwide communication system and supported the firm's cultural change to a learning organization (Gumbus et al., 2002).

Ashton (1998) examined National Westminster Bank (NatWest Bank) and its use of BSC to, among other things, improve quality, service and speed and help change the
corporate culture from its traditional command and control structure to a culture based upon “empowerment and coaching”. NatWest deemed the effort successful in aligning performance measurement to the bank’s long-term strategic goals, enhancing the bank’s ability to better manage the business and its resources, and in establishing a performance measurement system that was consistent and understood by employees at all levels. BSC helps to overcome the traditional bias in banking toward financial reporting by introducing a system that can take a longer-term view and takes account of factors such as learning and innovation, which, according to Martin Gray, NatWest UK chief executive, “… gives a richer picture than driving the business based on financials alone” (p.12).

A study by Gumbus et al., (2003) of Bridgeport Hospital, a member of Yale New Haven Health System Hospital, highlights the role BSC can play in helping organisations cope with external systemic change. Secular changes to America’s health care system brought on by financial pressures from the federal government, the move toward managed care and a general shift toward more outpatient care forced many hospitals to close or downsize. Though fully utilised, Bridgeport Hospital was still suffering losses and introduced the BSC as a strategic tool to link performance appraisal to the capital budgeting processes and to better engage the hospital’s sometimes-difficult medical staff. After just one year, the hospital was able to demonstrate improvement in Organizational Health, Quality and Process Improvement, Volume and Market Share Growth and Financial Health, translating into healthy operating margins and restored profitability for fiscal year 2001. Bridgeport CEO, Robert Trefry, attributed the turnaround to Bridgeport’s success in “monitoring and measuring key metrics that drive the business” (p. 54).
Syfert et al. (1998) demonstrate the applicability of BSC to the public sector through a study examining the experience of Charlotte, North Carolina, the first US city to utilize the BSC in areas such as transportation, economic development, neighbourhoods and government restructuring. The BSC proved a useful tool in helping the city to focus its efforts, improve motivation of employees, and enhance government accountability while also highlighting specific processes needing improvement to enable the city council to achieve its strategic objectives.

The BSC has also been successfully applied to non-profit and educational institutions. Kaplan et al. (2001a) cite the experience of the University of California, San Diego, which introduced the BSC to 27 service and administrative units in 1994 as a means to increase productivity and raise customer satisfaction. The results were broad and significant, including, for example, an 80% reduction in errors by the payroll department and a reduction in processing time for expense reimbursement checks from six weeks to as little as three days. The university’s BSC-driven program has gained widespread accolades and was the recipient of the 1999 Rochester Institute of Technology/USA Today Quality Cup for Education.

Malina and Selto (2001) examined data from a variety of divisions at a large multinational manufacturing company to assess the effectiveness of the balanced scorecard. The study results found support for Kaplan and Norton’s contention that the BSC can be an effective tool in developing, communicating and implementing strategy, at least at the company studied. The study found that the BSC had the intended effect of eliciting desired changes in the behaviour of managers in terms of
taking actions and utilising resources in ways that improved performance in the measures contained in the scorecard. Perhaps most importantly, managers recognised that improving their BSC performance translated into enhanced efficiency and profitability. The study concluded that BSC was most likely to garner support and positive action by managers when it is comprehensive, closely tied to strategy, includes effective measures with appropriate benchmarks, provides meaningful rewards and includes mechanisms for effective modifications or improvements.

A number of researchers have found that the BSC can be worthwhile simply for its ability to better communicate strategy and objectives to employees. In a study of logistics companies in Singapore, Chia and Hoon (2000) found the BSC introduced at two companies to be effective in helping senior managers to focus and better understand their companies’ vision and strategy and in providing them with a measurement system to track implementation of that strategy. Most senior managers recognised the value of the BSC tool.

Similarly, McCunn (1998b) reported strong support among managers at a leading UK retail bank using the balanced scorecard to improve management of its branch network. Managers applauded the effectiveness of the scorecard in communicating the bank’s business model despite their admission that they have yet to find the most appropriate precise mix of measures to include in the scorecard. The scorecard’s focus on staff attitudes and capability, adherence to processes and policies, customer satisfaction and results made the bank’s business model and priorities clear and easy to understand for branch staff. However, despite this evidence suggesting that the BSC provides for an effective way for organisations to develop a multidimensional
view of performance measurement, the Balanced Scorecard approach is not without its shortcomings.

### 2.3.3 Limitations of the BSC

As discussed above, financial measures alone are seen as having serious limitations, foremost among them being that they are backward-looking. But, many non-financial measures, including elements such as customer satisfaction and employee attitudes, can have similar drawbacks, particularly those non-financial measures, like service error rates, which are lagging indicators (Clarke, 1997).

Similarly, the effectiveness of the BSC will suffer if the included non-financial measures are not linked to or aligned with the firm’s strategic objectives (Kaplan & Norton, 1996d). Kaplan and Norton (1996, p. 75) concede these potential limitations and argue that “Scorecards built upon lagging, non-strategic indicators represent only a limited application of the full power of the BSC”.

The BSC is also weakened if too many performance indicators are included, and some researchers have noted a tendency for the number of performance measures to increase over time with the resultant risk of weakening the critical link between performance measures and organisational strategy (Gering & Rosmarin, 2000b; Gering & Rosmarin, 2002).

The research presented earlier is made up primarily of anecdotal evidence relating to the success of the BSC application. As Chow et al., (1998), Gering and Mhtambo
(2000), Lingle and Schiemann (1996), Lipe and Salterio (2000), Roussean and Roussean (2000) and others point out, the BSC theory may be a victim of its own success. It has become compulsory reading for middle management and widespread acceptance of its benefits may make the BSC appear deceptively simple, thereby leading to half-hearted or poorly thought out applications of it to real-life situations (Gering et al., 2002; Gering & Venkatramen, 2000c).

Gering and Venkatramen (2000) conclude that the BSC can be ineffective or even potentially damaging if it becomes a “balanced brainstorm” (Gering et al., 2000a) or grab-bag of ideas to satisfy each constituency independent of common strategic objectives or, even worse, as a set of “scorecards”, pitting different and sometimes conflicting indicators against each other and on an equal footing.\(^2\)

According to Lewy (1998), 70% of attempts to implement BSC fail. Management behaviour, which the BSC is intended to influence, is often also its undoing as managers may feel threatened by the increased spotlight and greater transparency provided by the BSC framework (Epstein & Manzoni, 1997; Kaplan et al., 1996c; Matheson, 2000).

Sceptics also note that the BSC often fails to achieve its goal when it focuses on trying to balance conflicting stakeholder interests or when it acts as a management scorecard (Gering et al., 2002). In this case, the BSC ceases to become a focused operationalisation of a coherent strategy. Instead, it has a tendency to become a list of indicators reflecting the preferences of each stakeholder. This may sometimes have

\(^2\) In that regard, Kaplan and Norton (1996) explicitly caution that “the measures on the unit’s scorecard should be specifically designed to fit the unit’s mission, strategy, technology, and culture”.
the effect of pitting the interests of stakeholders against each other. In such cases, the BSC becomes four, essentially independent lists of measures, and may exacerbate the problems of the now largely discredited “Management By Objective (MBO)” tool popular in the 1970s\(^3\) (Gering et al., 2000c; Kaplan et al., 2001a).

In extensive criticism of the BSC, Norreklit (2000) also argues that the BSC’s four pillars do not take account of all of an organisation’s stakeholders, that it does not take account of competitor actions, developments in technology or, for that matter, any unexpected event, which makes it static rather than dynamic and thus fails to establish a basis for continuous improvement. This would be especially hazardous in environments classified as uncertain where there is a clear need for organisations to be flexible in meeting unexpected demands (Norreklit, 2000, 2003).

This lack of flexibility is further impacted by the fact that the research presented thus far has focussed on the application of the BSC to developed markets with little regard to its applicability to organisations operating in developing economies. Kotler and Kartajaya (2000) ascribe industry growth in most developing Asian economies to one of five elements - authoritarian government; state-led development; institutionalisation; Asian values (quanxi); and networks, such as that of overseas

Chinese – and little research has been done on the applicability of BSC to such environments.

Although the BSC assumes a “cause-effect” relationship between the measures of its four pillars with learning and growth driving the internal business processes, which in turn drives the customer perspective leading to the financial indicators (Kaplan et al., 1996b), this cause-effect relationship is not a given argues Norreklit (2000). For instance, the relationship between high customer satisfaction and good financial results is tenuous (Gering et al., 2002; Kueng, 2000; Norreklit, 2000). In fact, the causal links between all the four pillars is questioned given the lack of empirical findings (Norreklit, 2000).

Companies seeking to increase their competitive advantage have to consider both business strategy and business processes, but as Kueng (2000) notes, the BSC theory’s strength is its focus on a company’s organizational units, such as strategic business units, not on business processes: “It looks at business processes only as far as they have a great impact on customer satisfaction and achieve an organization’s financial objectives” (Kueng, 2000, p. 67).

Gering and Rosmarin (2002) in their review of how to correctly use the BSC note that the BSC empowers an organization by operationalising the strategy discussion and assigning accountability for well-defined results. With targets based on clear financial and non-financial indicators, the BSC helps to identify a transparent strategy that reduces the risks of delegation. But, they caution, if implemented wrongly, it can
become a centralist trap. To avoid these pitfalls, they make a number of recommendations.

Firstly, use BSC as a centralized control. Secondly, don't try and balance the scorecard as the core of the theory is to use financial measures and to supplement the lag measures with non-financial lead measures and long-term measures consistent with the corporate strategy. The company should make its goals clear and once the strategy has been operationalised, the company should not add new measures that affect the framework. Thirdly, do not use the BSC as a direct incentive system. Finally, allow middle management to participate and contribute in selecting the appropriate technology with appropriate cost.

Norreklit (2000) points out that ultimately the BSC can only be as successful as the strategy that underpins it. But, even a well-defined strategy may be difficult to translate into specific relevant performance measures (Epstein et al., 1997). Norreklit (2000) also argues that mechanisms need to be in place to capture and incorporate the ideas of low-level managers into organisational strategy and that employee involvement or lack thereof in developing a BSC will be influence the success or failure of implementation. But, he concedes that such a level of employee involvement is “inconsistent with the top-down approach control function of the BSC, whereby strategy and performance objectives are determined by upper management,” as articulated by (Kaplan et al., 2001b).

However, what about the scenario where performance objectives are not determined by upper management, but are dictated by other factors within the social network that
organisations operate? Is the premise of the BSC of a multi-dimensional approach to performance measurement still applicable?

It appears that despite the BSC’s acknowledgement that performance measures can only be successfully developed and applied when strategy is considered as a driving force, the factors which may influence the choice of strategy may override the choice of performance measures.

It is therefore necessary to examine what factors influence the choice of performance measures if the applicability of the BSC across differential competitive environments is to be evaluated.

2.4 Conclusion

This chapter has highlighted the need for performance measures to be multi-dimensional in nature and has specifically reviewed that utilising frameworks encouraging this approach, like the BSC, can provide real benefits to organisations. However, the review has also highlighted a number of limitations with the application, and research reporting on the application of the BSC.

First, it appears that much of the reports on the application of the BSC focus on organisations operating within developed markets. It would appear important then to add to this research, to provide a more balanced perspective, with additional data which examined the need for multidimensional performance management in developing country cultures.
Second, the BSC contends that by examining organisational strategy, performance measures can be developed by management based on operationalised objectives. According to Kaplan and Norton (1992) the balanced scorecard translates a firm's mission and strategy into a comprehensive set of performance measures and provides the framework for strategic measurement and management. However, the BSC does not acknowledge that the measurement of performance is not always dictated by strategy and what management sees as important. Often, especially in environments classified as uncertain, the decision-making power is shifted to other forces, which operate within the industry or organisation’s social network. This is the premise of the institutional forces argument, which does not explicitly feature as a consideration in the premise of the BSC.

It appears important, therefore, that a more extensive examination of what forces can influence the choice of performance measure be undertaken before a conclusion can be made as to whether the BSC needs to consider additional factors in recommendations on how it should be applied.

The focus of the next chapter will be to therefore, review the factors, which primarily dictate how performance measurement is influenced.
Chapter 3

Factors Influencing Performance Measurement

3.1 Introduction

The previous chapter identified that in the most prominent framework utilised by organisations to adopt a multidimensional approach to performance management, organisational strategy and ensuing objectives are seen as the most important factors determining the choice of performance measures. In particular, organisational strategy can be an important determinant of a company’s performance measurement system, which, in turn, is a determinant of firm performance (Chan, Yung, & Burns, 2000; Chandler, 1962a; Young & Selto, 1991).

Strategy however, is a product of an organisation’s operating environment and the competitive and social forces at play (Chandler, 1962a; Gray & Karp, 1994; Mockler, 2002; Otley, 1980; Thompson & Strickland, 2001). Therefore, in order to better understand the factors that influence the choice of performance measures, it is necessary to understand the relationship between organisational strategy and the operating environment, particularly the social network in which firms operate.

The review will be based on a useful theory which addresses that the strategy appropriate to an individual company depends upon a wide variety of variables and
the unique situation and circumstances of that company (Chandler, 1962a; Lawrence & Lorsch, 1967; Shriberg, Shriberg, & Lloyd, 2002), Hambrick, 1983 #471; Zahra, 1987 #522; Venkatraman, 1986 #461]. This contingency theory espouses that a strategy based on the situation created by the external and internal environments will determine the type of strategy that an organisation can pursue. In particular, in an extension of the contingency theory, an examination of institutional forces at play in the social network within which firms operate will be made to show that mimetic, institutional and normative forces are significant and specific determinants of an organisation’s choice of performance measure.

### 3.2 Factors Shaping the Choice of Performance Measures

The previous chapter has identified that effective performance measurement focuses on the business basics required to win competitive advantage. Winning in a competitive environment assumes that the organisation can clearly identify what it is doing and what organisational stakeholders value. In effect, the key to effective performance measurement is a clear organisational strategy.

Ranges of external and internal factors mix to determine an organisation’s strategic orientation. Thompson & Strickland (2001) suggest that the interplay between the six major factors, as depicted in Figure 3.1 is contingent upon the context in which the firm operates. This is the foundation of contingency theory (Chandler, 1962; Hayes, 1977; Hrebiniak & Joyce, 1985; Husted, 2000).
Figure 3.1 Factors Shaping the Choice of Company Strategy

Strategy-shaping factors external to the company

- Economic, social, political, regulatory, and community citizenship considerations
- Competitive conditions and overall industry attractiveness
- Company opportunities and threats to the company’s well-being

The mix of considerations that determines a company’s strategic situation

- Company resource strengths, weaknesses, and competencies and competitive capabilities
- Personal ambitions, business philosophies, and ethical principles of key executives
- Share values and company culture

Conclusions concerning how internal and external factors stack up: their implications for strategy

Identification and evaluation of strategy alternatives

Crafting a strategy that fits the overall situation

Strategy-shaping factors internal to the company

Contingency theory posits that organisations need to take into account changes to internal and external factors affecting the organisation in order to establish a better fit between strategy and the environment (James & Hatten, 1995; Venkatraman & Prescott, 1990; Zajac & Shortell, 1989). The importance of strategy-environment fit has been extensively emphasised in research (for example see Ansoff (1965), Miles and Snow (1984), Hrebiniak and Joyce (1985). As Chan (2000, p. 286) notes, “the value of an environment-strategy (E-S) fit is to create competitive advantage in the marketplace, a condition not only for the survival but also for a firm’s success”.

The contingency theory postulates that the relationship between the environment and the choice of strategy will be different for different levels of the critical contingency or situational variables as presented in Figure 3.2 (Delery & Doty, 1996; Hrebiniak & Joyce, 1985).
It is clear, therefore, that these situational factors have a significant relationship with the choice of performance measures within an organisation. Differences in strategy are likely to translate into differences in performance measures as companies seek to encourage behaviour that contributes to execution of strategy (Govindarajan & Shank, 1992; Shank, 1989).
For instance, Miles and Snow (1978) and Snow and Hrebiniak (1980) identify four types of company strategies - defenders, prospectors, analysers and reactors (as outlined in Table 3.1).

**Table 3.1 Miles and Snow Typology of Generic Strategies**

<table>
<thead>
<tr>
<th>Prospects</th>
<th>Prospectors are organisations, which almost continuously search for market opportunities, and they regularly experiment with potential responses to emerging environmental trends.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysers</td>
<td>Analysers are organisations, which operate in two types of product-market domains, one relatively stable, the other changing. In their stable areas, these organisations operate routinely and efficiently…in their more turbulent areas, (they) watch their competitors closely for new ideas, and then they rapidly adopt those which appear to be the most promising.</td>
</tr>
<tr>
<td>Defenders</td>
<td>Defenders are organisations which have narrow product-market domains…and do not tend to search outside of their domains for new opportunities.</td>
</tr>
<tr>
<td>Reactors</td>
<td>Reactors are organisations in which top managers frequently perceive change and uncertainty occurring in their organisational environments but are unable to respond effectively.</td>
</tr>
</tbody>
</table>


According to Miles and Snow (1978, p.55), the prospector company’s “prime capability is that of finding and exploiting new product and market opportunities”.

In contrast, defenders are firms, which attempt to create a stable domain by aggressively protecting their product-market and do not tend to look outside of their domain (Miles et al., 1978b). As Miles and Snow (1978, p. 37) explain, the defender company “depends on its ability to maintain aggressively its prominence within the chosen market segment”. The defender invests heavily in technological efficiency and manages with a functional structure and centralized control (Fox-Wolfgramm et al., 1998; McDaniel et al., 1987; Miles et al., 1978b).

Somewhere in between are analysers, which carefully explore new market domains, including both new product and market opportunities, while maintaining core competencies (e.g. skill, products, and customers) (Miles et al., 1978b). Analysers exhibit a combination of defender and prospector approaches, using both stable and flexible technologies and utilising matrix structures and complex co-ordinating mechanisms (Miles & Snow, 1978a; Wright, Kroll, Chan, & Hamel, 1991).

And finally, the reactor is a firm of an "unstable organisation type because it lacks a set of consistent response mechanisms that it can put into effect when faced with a changing environment"(Miles and Snow, 1978, p. 81). In most research on the Miles and Snow archetypes, reactors have not been consistently described because reactors are usually an unsuccessful typology and this strategy is not seen as viable in the long term (James et al., 1995; Shortell & Zajac, 1990; Wright et al., 1991). Therefore, many researchers, such as James and Hatten (1995), Shortell and Zajac (1990), Wright et al. (1991), and Zajac and Shortell (1989), in their empirical research, conclude that there are three natural firm archetypes rather than four.
These typologies are primarily differentiated by the approach each uses in its product-markets strategy (Hambrick, 1983). This differential approach has a significant link to the type of performance measures used.

Prospector companies are likely to be found in more dynamic operating environments and they are more likely to emphasise new growth products relative to existing ones (Miles et al., 1978a; Robbins & Barnwell, 2002). The propensity of prospector companies to focus on differentiation and new product development is likely to result in a reward system that favours marketing and research and development (R&D) (Miles et al., 1978a). When the emphasis is on R&D or marketing, financial measures of performance are “inadequate” according to Hayes (1977) and non-financial performance measures become more important.

This view is supported by the empirical research of Nanni et al., (1990) and Richardson and Gordon (1980), who found that the prospector organisation is likely to rely more heavily on non-financial measures relative to financial measures. Similarly, Ittner et al., (1997) found that innovation-oriented prospectors firms were likely to place relatively greater emphasis on non-financial measures than defender firms seeking to be cost leaders.

Therefore, for prospectors, while financial measures still matter (Miles et al., 1978a), non-financial measures may be more important to decision making (Hanson, Dowling, Hitt, Ireland, & Hoskisson, 2002; Kaplan et al., 1992). Furthermore, with its focus on effectiveness over efficiency (Miles et al., 1978a), the prospector is likely
to emphasise output or results measures rather than process measures (Hambrick, 1983).

Analysers usually exhibit a mix of prospector and defender characteristics (Miles et al., 1978a; Williams & Narendran, 2000). Thus, analysers will wait for prospectors to pioneer new markets and products, entering only after their viability has been established (Snow & Hambrick, 1980b). This has implications for the technological efficiency of analysers, who must maintain core technologies to serve existing product and customer markets while also maintaining the flexibility to quickly gear up new technologies to follow prospectors into new products and markets (Snow & Hrebinjak, 1980a; Zahra, 1987). True to their name, analysers rely on research and efficient production to quickly adopt ideas pioneered by their competitors (Williams & Tse, 1995). As a result of this dual focus on maintaining existing markets while quickly adapting to new markets, Miles and Snow (1987) conclude that analysers can never be completely cost-effective or efficient and thus must primarily rely on differentiation for competitive advantage. Thus, differences in competitive strategies will lead to differences in performance measurement systems (Govindarajan et al., 1992), reinforcing the need for a multidimensional approach that combines financial and non-financial measures for firm decision making (Kaplan et al., 1996b).

In contrast to prospectors, defenders are likely to place less emphasis on new product development or technology and greater reliance on existing products and technologies in their pursuit of stable customer and product (James et al., 1995; Miles et al., 1978a). As a result, defender firms are likely to favour financial measures (Nanni et al., 1990; Richardson & Gordon, 1980). As Miles and Snow (1987) note, this greater
reliance on financial measures reflects the defender pursuit of efficiency and low costs over effectiveness. Moreover, the defender’s focus on efficiency requires continuous monitoring of progress (Miles et al., 1978a), which, in turn, is likely to result in an emphasis on process measures rather output measures (Miles et al., 1978b; Smith, Guthrie, & Chen, 1989).

Thus the choice of organisational strategy appears to have a clear link with the type of performance measure(s) possibly operationalised. However, the choice of organisational strategy, is notoriously risky because of the mix of both the internal and external environment factors and may not be as clear cut as Miles and Snow attest (Ginsberg, 1988; Greenwood & Hinings, 1993; Hambrick & Fredrickson, 2001).

To minimise the risk and increase its competitive advantage therefore, a firm should select the strategy which concentrates on its resources and is linked to its core competencies or capability and must then continually analyse and reassess its strategy as the environment changes (Watson, 1993).

But what happens when the environment changes suddenly or dramatically? Environmental change will affect the ability of the company to compete in two ways (Segev, 1987; Walley & Whitehead, 1994). Firstly, the companies that cannot adapt themselves to suit the new environment will be faced with unproductive investments, higher costs and a loss of competitive advantage (Aragon-Correa & Sharma, 2003; Venkatraman & Grant, 1986; Walley et al., 1994; Zahra, 1987). Secondly, companies that can adapt themselves to the new environment seem to increase their competitive advantage both domestically and internationally, (Miller, 1988; Porter, 1980; Snow et al., 1980a) and also improved efficiency (Miles et al., 1978a; Porter, 1980).
Environmental changes in an industry, however, might not affect every company in the same manner or to the same degree (Luffman, Lea, Sanderson, & Kenny, 1996; Otley, 1980, 1994). For instance, a change in the economic environment, such as a recession, may elicit a variety of responses, such as producing lower price products or searching for new opportunities overseas (Luffman et al., 1996; Robbins et al., 2002). Change can carry both threats and opportunities (Hanson et al., 2002; Luffman et al., 1996).

Companies in industries that are characterised by oligopoly or monopolistic competition (e.g., government intervention or protection) adapt their strategy less than companies in industries undergoing (or on the verge of) fundamental change (e.g., open competitive market environments, industry/market structure changes, and changes in the legal/regulatory system (Conant, Mokwa, & Burnett, 1987; Rugman & Verbeke, 1990).

For example, in industry environments with a tradition of government intervention or protection that could be classified as more stable environments (Rugman & Verbeke, 1991), performance is less dependent or not dependent on competition or customer demand. In this type of market, performance is shaped more by culture or industry norms (Chan et al., 2000; Lee & Miller, 1996; Orru, Marco, Biggart, & Hamilton, 1991). As a result, firms in this type of environment are less likely to adapt their strategy, and thereby their performance measures, to suit environmental changes because of the underlying certainty provided by the government protection (Lee et al.,
1996). Such was the case within the Thai banking sector prior to the Asian financial crisis of 1997 (Vajragupta et al., 2000; Vatikiotis, 1998).

Forces which centred on the nature of the banking institution played a significant role in the strategy adopted. These forces, termed institutional forces are a small element of the contingency variables earlier identified but appear to have significant influence over decision-making in markets characterised by oligopolistic or monopolistic competition.

3.3 Institutional Perspective

The contingency perspective explains how firms respond to the environment that they face by adapting their strategy to fit the environment and this, in turn, influences the firm’s performance measurement system. Institutional theory goes beyond that and seeks to explain how specific social institutions influence firm behaviour, business practices and organisation form, including the choice of performance measures (DiMaggio et al., 1983; Homburg, Workman, & Krohmer, 1999; Meyer & Rowan, 1977).

More fundamentally, the institutional perspective acknowledges that the firm is part of a social network that is subject to pressures for conformity and the need for legitimacy (DiMaggio et al., 1983; Gupta et al., 1994; Homburg et al., 1999; Meyer et al., 1977). This poses a conflict between conforming to institutionalised operating procedures and the demands of efficiency, especially in industries which operate under institutional and government controls and where obtaining legitimacy is more
important than actual performance (Gupta et al., 1994; Hussain & Hoque, 2002b; Meyer et al., 1977; Scott, 1994; Scott & Meyer, 1983).

As Scott (1994, p.19) explains: “institutions are social constructions made up of three elements: meaning systems and related behavioural patterns; symbolic elements, including representational, constitutive and normative rule systems; and regulatory processes that are used to enforce reified and legitimated action.” These elements collectively comprise the social control that is exerted over an institution and define the context in which firm actions and decisions are made (Delmestri, 1998; Hussain et al., 2002a). These elements of the institutional perspective are also known as: coercive isomorphism, normative isomorphism and mimetic isomorphism.

**Coercive isomorphism** refers to the pressure that is placed on the firm to conform to the rules and practices that are considered important within an industry (Greve, 2000; Hussain et al., 2002a). A number of researchers highlight the coercive influence of government directives and regulations on firm or organisational behaviour in a variety of different environments (Ansari, Bell, & Lundblad, 1992; Hoque & Hopper, 1994; Hussain et al., 2002a; Hussain et al., 2002b).

Hussain and Gunasekaran (2002), in a study of the use of non-financial performance measures in Finnish institutions, found that during an economic recession, pressure on financial institutions from government/central bank authorities increased, which, in turn, increased the pressure on the firms to focus on financial performance and measures rather than non-financial measures. As suggested by Ansari et al (1992) and Hoque and Hopper (1994), the coercive influence of the central bank on banks
directly affect the banks’ day-to-day activities. Hussain and Hoque (2002, p.178), in a study of non-financial performance measurement at Japanese banks, found that “…banks appeared to operate under the principle of central bank which effectively influenced major business decision like pricing, long-term planning, etc…These obligations and requirements impacted on management’s planning and establishment of long-term strategy to improve and measure non-financial performance”.

Firms, therefore, respond to these coercive isomorphism constraints by, among other things, developing systems that are consistent with what is expected of them, thereby validating the legitimacy of their operational behaviour and decision-making (Gupta et al., 1994; Hoque et al., 1994; Scott, 1994). This, for example, may create pressure on the firm to develop or change its performance measurement system in accordance with the dictates of supervisory bodies (Granlund & Lukka, 1998; Hussain et al., 2002a).

**Normative isomorphism** refers to the shared educational and professional experience and infrastructure that establish norms of behaviour and “teach” those norms to the people who make up the institutions (DiMaggio & Powell, 1991b; Heverman, 1993; McKinley, Sanchez, & Schick, 1995; Nicolaou, 1999). As DiMaggio and Powell (1983, p. 152) state: “to a certain extent, learning is legitimate in a cognitive base cultivated by formal training and through interactions in professional networks”.

Hussain and Hoque (2002) and Scapens (1994) point out the importance of exploring how practices evolve and how accountants and managers are tainted. As Hussain & Hoque (2002, p. 167) state “the experience of professionals such as managers may
also influence the design and use of a performance measurement system”; thus, the choice of a performance measurement system may reflect their specific experiences and their biases.

These norms also include top management, including CEOs, who also influence the performance measurement system. As Scott (1987, 1994) points out, top management sets the firm’s cultural forms in a manner that is consistent with their own set of beliefs, which in turn influence the performance measurement system of the firm. Hussain and Hoque (2002) also found that the cultural and experiential norms of top management influences selection of performance measurement systems in banks, so, for example, that management familiarity with or previous exposure to a particular performance measurement system may determine its selection rather than any comparative analysis of potential systems.

DiMaggio and Powell (1983) suggest that in an environment of uncertainty, firms will imitate others or “follow the leader” in determining appropriate behaviour – known as mimetic isomorphism. Patterning their own operational or decision making systems on the systems used by those seen as the industry leaders is seen as a means of reducing uncertainty and risk and enhancing legitimacy (DiMaggio et al., 1991b; Greve, 2000; Haverman, 1993).

The importance of the links between organisational strategy and performance measurement are well established in the research (Albright, Davis, & Hibbets, 2001; Anderson, Fornell, & Rust, 1997; Andrews, 1971; Brignall, 1997; Fitzgerald et al., 1993; Kaplan et al., 2001a; Miles et al., 1978a). When uncertainty or other factors
make those links impossible or tenuous, managers may respond simply by copying the practices of other organisations deemed market leaders, including widely accepted performance measurement systems such as the BSC or TQM (Fligstein, 1985; Hussain et al., 2002b; O'Neill, Pouder, & Buchholtz, 1998). Although the result may be a situation where the performance measurement system is not linked to strategy, or even performance objectives, the copied system at least provides some legitimacy to the firm’s operational behaviour (DiMaggio et al., 1983).

Hussain and Gunasekaran (2002) and Scott (1987) found that for decision making in general and performance measurement in particular, normative and/or mimetic forces are the primary influences on managers. DiMaggio and Powell (1983) suggested that the imitation of the largest firms in industry by smaller firms was a successful institutional rule. As Haverman (1993, p. 598) concluded, “under conditions of competition, ambiguity, costly search, and environmental variability, organisations that mimicked the behaviour of large firms had good survival chances”. Haverman (1993) also found that large, highly profitability firms serve as especially strong role models for other firms.

Hence, it appears therefore that irrespective of strategic orientation, the institutional forces at play in an industry or organisation may significantly influence decision making in terms of choice of performance measurement system. Therefore, despite the call for multidimensional performance measures, the institutional forces at play may cancel out even the most significant attempt to measure all classes of performance indicators, a la the BSC. It appears therefore that the role of these
influencing performance measurement is in need of further investigation.

3.4 Conclusion

This chapter has shown that contingency factors complemented by institutional forces can influence a firm’s performance measurement practices (Gupta et al., 1994; Homburg et al., 1999; Scott, 1987). Specifically the chapter has shown that strategic orientation can have a significant impact on the performance measurement focus by examining literature relating to the Miles and Snow (1978) typology.

However, this chapter has also shown that institutional forces – that is mimetic, coercive and normative forces can also play a significant role in the type of performance measures utilised, possibly irrespective of strategic orientation.

It is therefore the objective of this thesis to examine what factors influence performance measurement within the Thai-banking sector. Specifically, the thesis explores:

1. What is the role of organisational strategy and institutional forces in influencing the adoption of performance measures?
2. Is there a difference in the type and application of performance measures utilised based upon strategic orientation?
3. Can the Balanced Scorecard be applied to a highly uncertain environment, which is influenced by institutional forces?
In an attempt to answer these questions, empirical studies are to be presented. Study one is the subject of chapter four, which endeavours to identify strategic orientation via the application of the Miles and Snow framework. This is a necessary first step in trying to decipher the role of strategic orientation in the choice of performance measurement.

Chapter five presents the second study, which combines qualitative, and quantitative data gathering and analysis techniques to identify the factors that influence performance measurement and the types of measures utilised by the banks in Thailand post the 1997 financial crisis.
Chapter 4

Strategy Orientation in Thailand’s Banking Industry

4.1. Introduction

This study is preliminary in nature and examines the effect of the financial crisis of 1997 on the strategic choice of banks in Thailand. In particular, this study adopts a contingency perspective in examining the fit between strategy and environment and to classify the strategic orientation of the banks via the Miles and Snow typology. It is hoped that by identifying strategic orientation, the nature of performance measurement adopted by these banks can be more concisely investigated. The ensuing chapter provides evidence from a series of surveys of the remaining Thai-owned and foreign-owned banks’ CEOs and senior and middle managers regarding strategic direction post the 1997 financial crisis.
4.2 Study Rationale

In order to adequately address the role of strategic orientation in influencing the adoption of performance measures, some way of classifying strategy is needed. This is the rationale for this study.

Since the financial crisis in 1997, the Thai government has opened the nation’s banking sector to foreign direct investment and upgraded accounting practices to international standards to improve corporate governance (Sahasakul, 1999). As a result, banks that could not improve and adapt themselves to fit the new environment have not survived or were taken over by the government and sold to foreign financial institutions (Phongpaichit et al., 2000; Sahasakul, 1999; The Nation, 1997; Vajragupta et al., 2000).

The Thai-owned banks that survived the crisis are the big and medium-sized banks with a large or significant market share, while the banks that merged or were acquired by foreign investors are the small banks (Phongpaichit et al., 2000; Sahasakul, 1999; Vajragupta et al., 2000). In this study, it is expected that the incumbent banks, in this case Thai-owned banks, will take the defender strategy to protect market share. According to Miles and Snow (1987), defenders have narrow product-market domains, consistently seek stability to protect those product markets and do not search outside their domains for new opportunities.

By contrast, the foreign-owned banks are 'acquisition entry' banks, which benefit from the financial strength and superior skills of their parents (Yip, 1982). As a result, the
foreign-owned banks can be expected to seek to increase market share and, thus take a prospector or analyser strategy. The type of strategic orientation will have an impact on the type of performance measures focused upon which is the focus of this study.

This leads to the following research proposition:

**Research Proposition:** Banks which have survived acquisition entry adopt defender strategies in preference to analyser strategies or prospector strategies in order to compete in the new market place.

In order to test this proposition the following research methodology was used.

### 4.3 Research Methodology

#### 4.3.1 Sample Design

Data for this study was collected from the banking industry in Thailand. The first data collection was undertaken in January 2000, some 2.5 years after the crisis began. Therefore, the study provides a more accurate picture of reality over a period when the market was not in a state of high vagueness.

At the time there were 13 commercial banks in Thailand (Phongpaichit et al., 2000). These comprised four state-owned banks, five private Thai-owned banks and four foreign-owned banks. As state-owned banks are not the main focus of this
dissertation to the study. The focus of this study is on private Thai-owned and foreign-owned banks. However, one private Thai-owned bank was rejected because secondary data lacked key variables and the researcher was unable to obtain a response from the CEO. Thus, eight banks were selected for this study and they include four private Thai-owned banks and four foreign-owned banks.

4.3.2 Procedure

In order to determine the type of strategic approach adopted by the eight banks, the data was collected via a survey sent to CEOs, senior managers and middle managers of the banks over a nine-week period. One-to-one interviews were also conducted by this researcher with senior and middle/branch banks managers who did not respond to the mail-out survey.

4.3.3 Measurement

Measuring strategic orientation: To classify the banks’ strategy orientation, the Miles and Snow (1978) typology was used. The Miles and Snow (1978) generic strategy typology is useful in the study of business-level strategy (Forte, Hoffman, Lamont, & Brockmann, 2000; Hambrick, 1983; Slater & Narver, 1993) and has

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4 State-owned banks were not the main focus of this dissertation because the state-owned banks were in special condition and received government subsidies. Thus, the focus on this study is private Thai-owned and foreign-owned banks. But one private Thai-owned bank was rejected because secondary data lacked key variables, the researcher was unable to obtain a response from the CEO and secondary financial data was not available for the same period as the other banks. Moreover, during the period of first data collection, the situation of this bank was highly uncertain as it was taken over by the Bank of Thailand, which prepared it to be sold. Although at the time there were thirteen commercial banks in Thailand by the end of the study only twelve banks remained Phongpaichit, P. & Baker, C. 2000. Thailand's crisis. Singapore: Institute of Southeast Asian Studies Singapore.
created a significant stream of strategic management research (McDaniel et al., 1987; Thompson et al., 2001; Zajac et al., 1989).

This study uses the strategic archetype of Miles and Snow (1978) for several reasons. First, the Miles and Snow typology has been adopted in empirical studies in many industries and in many countries. Moreover, the Miles and Snow classifications (1978) have been widely adopted in strategy research and used to test a wide range of strategy areas and strategy-environment fits, including: business strategy (Hambrick, 1983), marketing strategy (McDaniel et al., 1987), strategic type and distinctive marketing competencies in the healthcare industry (Conant, Mokwa, & Varadarajan, 1990), corporate strategy in a centrally planned economy (Tan & Litschert, 1994), technology strategy (Weisenfeld-Schenk, 1994), strategy-incentive fit (Rajagopalan, 1996), environment-strategy fit in Hong Kong manufacturing logistics (Chan et al., 2000), and environment-strategy fit in the banking industry (Fox-Wolfgramm et al., 1998; James & Hatten, 1994; James et al., 1995; McDaniel et al., 1987).

Second, the reliability and convergent validity of this archetype have been supported by a number of studies. Shortell and Zajac (1990) in their study of the healthcare industry, found the self-typing paragraph approach highly reliable. Conant et al. (1990), in their study also set in the healthcare industry, attempted to replace the self-typing paragraph approach with a multi-item scale, but, instead found strong evidence supporting the reliability of the self-typing paragraph approach. James and Hatten (1995) used the Miles and Snow self-typing paragraph approach in their study of the

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5 This section draws heavily on James, W. L. & Hatten, K. J. 1995. Further evidence on the validity of the self typng paragraph approach: Miles and Snow strategic archetypes in banking [Research notes and communications]. Strategic Management Journal, 16(2): 161-169.
banking industry and found support for the reliability and convergent validity of the self-typing paragraph.

Third, the archetype provides a comprehensive classification and understanding of organisational strategy which includes human resources practices, administrative relationships and structure processes (Delery et al., 1996; Dess, Newport, & Rasheed, 1993) and is consistent with the notion of the Balanced Scorecard.

A self-typing approach, as presented in table 4.1, whereby the CEO, senior managers, and middle managers select from among four descriptions of their general strategies, was used to measure strategic orientation. The descriptions, as shown below, have been used in studies by James and Hatten (1995), McDaniel and Kolari (1987), Snow and Hambrick (1980). The terms “defender,” “prospector,” “analyser,” and “reactor” were not used on the questionnaire. Those terms were replaced by generic categories of “type 1,” “type 2,” “type 3,” and “type 4,” each corresponding to the appropriate strategic type.
Table 4.1 Miles and Snow Typology: Self-typing Paragraphs

<table>
<thead>
<tr>
<th>Self-typing paragraph approach: Miles and Snow strategic archetypes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• We've attempted to locate and maintain a secure niche in a relatively stable product or service area. We've tried to offer a more limited range of products or services than our competitors and we've tried to protect our domain by offering higher quality and superior services. We may not be at the forefront of developments in the industry but have attempted to concentrate instead on doing the best job possible in our market.</td>
</tr>
<tr>
<td>• We've tried to operate within a broad product-market domain that undergoes periodic redefinition. We've wanted to be 'first in' with new products and market areas even if not all of these efforts have proven to be highly profitable. We've tried to respond rapidly to early signals concerning areas of opportunity, and these responses have often led us to a new round of competitive actions. However, we may not maintain market strength in all of the areas we enter.</td>
</tr>
<tr>
<td>• We've attempted to maintain a stable, limited line of products or services, while at the same time have tried to move out quickly to follow a carefully selected set of the more promising new developments in the industry. We are seldom 'first in' with new products or services but by carefully monitoring the actions of major competitors in areas compatible with our stable product-market base we try to be 'second in with a more cost-efficient product or services.</td>
</tr>
<tr>
<td>• We've not been able to have a consistent product-market orientation. We have not been able to be as aggressive in maintaining established products and markets as have our competitors and we have not been able to take as many risks as they have. We have been forced to respond to environmental pressures.</td>
</tr>
</tbody>
</table>

Source: (James et al., 1995; McDaniel et al., 1987; Miles et al., 1978a)
CEOs were targeted to represent their firms for several reasons. First, it is almost universally accepted that strategic management should be the major responsibility of CEOs (Delery et al., 1996; Hise & McDaniel, 1984; Pearce & Robinson, 1982). This view is supported by Pearce and Robinson (1982, p. 13), who state that “the principle duty of CEO is often defined as that of giving long-term direction to the firm”, and others, who argue that the CEO’s paramount role in ensuring business success makes him or her ultimately responsible for strategy (Delery et al., 1996; Hise et al., 1984; McDaniel et al., 1987). However, some researchers such as Byles and Labig (1996), James and Hatten (1995), and McDaniel and Kolari (1987) have expressed concerns as to whether the CEO’s view is truly representative of the company strategy. To address this concern, this study also collected data from senior and middle/branch managers.

Specifically, in order to ascertain whether the strategy orientation adopted by CEOs has been successfully communicated throughout the management ranks of each bank, senior and middle managers were asked to identify their banks’ strategy type. This was further investigated through interviews with six middle managers and six senior managers in each of the four Thai-owned and four foreign-owned banks.

4.3.4 Data Analysis

The data from this study was analysed using the Statistical Package for Social Sciences programme (SPSS for windows version 11). As the sample size of the banking industry in Thailand is small, a number of non-parametric statistical procedures were employed to address the research proposition. The Chi-Square test
was used to examine whether the proportions of individuals classified into categories of variables (e.g. demographic variable) are equal between qualitative groupings of individuals (Green, Salkind, & Akey, 2000). The chi-square test was used to examine differences between Thai-owned and foreign owned banks.

Second, the Kruskal-Wallis test was used to examine whether the medians are equal across groups (Green et al., 2000). This test is equivalent to a one-way ANOVA test (Coakes & Steed, 2001; Puri, 1996). The Kruskal-Wallis test was used to examine possible differences in responses to type of strategy between middle managers and senior managers within each bank.

Third, the Mann-Whitney U test was used to examine the differences in strategy typology between private Thai-owned banks and foreign-owned banks. The Mann-Whitney U test is equivalent to the independent samples t-test in which the two independent (unrelated) groups of case come from populations having the same distribution (Coakes et al., 2001; Morgan & Griego, 1997; Pavkov & Pierce, 2001; Puri, 1996).

To respect the confidentiality of the banks (a prerequisite for participation by most of the banks) the Thai-owned banks were code-named banks A, B, C, and D, and the foreign-owned banks were code-named banks W, X, Y, and Z. The respondents were code-named by a respondent number for each respective bank (e.g. respondent number one from bank A and so on).
4.4 Results

In examining the relationships between deregulation change, strategic choice and performance, it is essential to identify strategic choices first (Reger, Duhaime, & Stimpert, 1992). The research proposition asked whether banks which have survived acquisition entry adopt defender strategies in preference to analyser strategies or prospector strategies in order to compete in the new market place.

Table 4.2 presents the results of the mail-out survey, which asked participate to choose which paragraph best represents the strategy of their organisation. Of the eight CEO respondents, two classified their banks as defenders, three as prospectors, and three as analysers.

Table 4.2 Strategic Orientation Classification Results from CEOs, Senior Managers and Middle Managers

<table>
<thead>
<tr>
<th>Bank</th>
<th>CEO Response</th>
<th>Senior managers (%) Response (n=24)</th>
<th>Middle managers (%) Response (n=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thai-owned banks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank A</td>
<td>Analyser</td>
<td>Analyser (67%)</td>
<td>Analyser (44%)</td>
</tr>
<tr>
<td>Bank B</td>
<td>Prospector</td>
<td>Prospector (67%)</td>
<td>Prospector (50%)</td>
</tr>
<tr>
<td>Bank C</td>
<td>Defender</td>
<td>Defender (100%)</td>
<td>Defender (44%)</td>
</tr>
<tr>
<td>Bank D</td>
<td>Defender</td>
<td>Defender (100%)</td>
<td>Defender (61%)</td>
</tr>
<tr>
<td><strong>Foreign-owned banks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank W</td>
<td>Prospector</td>
<td>Prospector (100%)</td>
<td>Prospector (83%)</td>
</tr>
<tr>
<td>Bank X</td>
<td>Prospector</td>
<td>Prospector (100%)</td>
<td>Prospector (72%)</td>
</tr>
<tr>
<td>Bank Y</td>
<td>Analyst</td>
<td>Analyst (67%)</td>
<td>Analyst (67%)</td>
</tr>
<tr>
<td>Bank Z</td>
<td>Analyst</td>
<td>Analyst (83%)</td>
<td>Analyst (72%)</td>
</tr>
</tbody>
</table>
Among the four private Thai-owned banks, CEOs classified their strategic typology as defender at two of the banks (banks C and D), as prospector at one of the banks (bank B) and as analyser at one of the banks (bank A).

**Bank A** was classified as an analyser by the CEO. Among senior managers (n=6), 67% selected the analyser strategic typology and 33% selected prospector. Among middle/branch managers (n=6), 44% selected the analyser strategic typology, 33% selected prospector and 22% selected defender. The results were not significantly different.

**Bank B** was classified as a prospector by the CEO. Among senior managers (n=6), 67% selected the prospector strategic typology and 33% selected defender. Among middle managers (n=6), 50% selected prospector, 33% selected defender, 11% selected analyser and the remaining 6% selected reactor. The associated chi-square ($\chi^2(3, N = 18) = 9.111, p = 0.033$) is significant ($p < 0.05$), implying that the proportions of middle managers selecting each typology are significantly different with the largest number selecting the prospector typology.

However, the chi-square test for relatedness ($\chi^2(2, N = 24) = 1.160, p = 1.000$) is not significant ($p > 0.05$), indicating that the selection of strategic typology type does not significantly differ between middle managers and senior managers in bank B. Both middle managers and senior managers were most likely to select the prospector strategic typology, in line with the CEO’s choice.
Bank C was classified as a defender by the CEO. Similarly, 100% of senior managers (n=6) also described their bank as a defender. However, among middle managers (n=6), only 44% selected the defender strategic typology type, while 33% selected prospector, 17% selected analyser and 6% selected reactor. These differences however, were not statistically significant.

Bank D was classified as a defender by the CEO. Among senior managers (n=6), 100% also selected the defender typology but, among middle managers (n=6), only 61% selected defender, while 17% selected prospector, 17% selected analyser and 6% selected reactor. The associated chi-square ($\chi^2(3, N = 18) = 6.444, p = 0.005$) indicates significant differences ($p < 0.05$) in selection among middle managers, although the bulk of middle managers selected the defender strategy typology. In bank D, both middle managers and senior managers identified the firm's strategic typology type as defender. This is confirmed by the chi-square test for relatedness ($\chi^2(2, N = 24) = 2.429, p = 0.565$), which is not significant ($p > 0.05$).

Foreign-owned banks: In this group, two banks were classified as prospectors (banks W and X) and two as analysers (banks Y and Z) by their CEOs.

Bank W was classified as a prospector by the CEO. All senior managers (n=6) also selected prospector. Among middle managers (n=6), 83% selected prospector and 17% selected analyser, with no significant difference reported.

Bank X was classified as a prospector by the CEO. All senior managers (n=6) also selected prospector. Among middle managers (n=6), 72% selected prospector, 17%
selected analyser and 11% selected defender. The associated chi-square ($\chi^2(2, N = 18) = 12.333, p = 0.003$) is significant ($p < 0.05$), indicating significant differences in the frequency of selection among middle managers with the majority selecting analyser. No differences were found between middle managers and senior managers however, as the associated chi-square test for relatedness ($\chi^2(2, N = 24) = 1.317, p = 0.741$) was not significant ($p > 0.05$).

**Bank Y** was classified as an analyser by the CEO. Among senior managers (n=6), 67% selected analyser and 33% selected prospector. Among middle managers (n=6), 67% selected analyser, 22% selected prospector and 11% selected defender. The associated chi-square ($\chi^2(2, N = 18) = 9.333, p = 0.010$) is significant ($p < 0.05$), indicating significant differences in the frequency of selection by middle managers with most middle managers selecting analyser.

The associated chi-square test for relatedness ($\chi^2(2, N = 24) = 0.784, p = 1.000$) however, was not significant ($p > 0.05$), indicating that there are no significant differences between senior managers and middle managers with both selecting the analyser strategy type.

**Bank Z** was classified as an analyser by the CEO. Among senior managers (n=6), 83% selected analyser and 17% selected defender. The associated chi-square ($\chi^2(1, N = 18) = 2.667, p = 0.000$) was significant ($p < 0.05$). Among middle managers (n=6), 72% selected analyser, 16.67% selected prospector and 11% selected defender. The associated chi-square ($\chi^2(2, N = 18) = 12.333, p = 0.003$) was again significant ($p < 0.05$). Therefore, both senior and middle managers mostly selected the analyser.
strategy typology and this is confirmed by the chi-square test for relatedness ($\chi^2(2, N = 24) = 1.074, p = 0.795$) with the p-value not significant ($p > 0.05$).

The results suggest that in Thai-owned banks, firms which took the defender strategy seem to have somewhat better communication from the top than prospectors and analysers. In foreign-owned banks, banks which took the prospector strategy delivered strategy down the organisation better than analysers. But, overall, foreign-owned banks seemed able to communicate strategy from the top to bottom more effectively than private Thai-owned banks as there was less discrepancy in the strategic typology selected among the group.

Overall, in terms of delivery of the company’s strategy, as classified by the CEO, to each level of employee, the associated Chi-square test for relatedness indicates no significant differences between CEOs, senior managers and middle managers across the entire industry ($p > 0.05$). However, foreign-owned banks generally scored higher than Thai-owned banks in terms of delivery of strategy to each level of employee.

4.5 Discussion

The proposition in this study refers to whether banks which have survived acquisition entry take a defender strategy rather than that of analyser or prospector. The results of this study indicate that among acquisition entry survivors – private Thai-owned banks - half did, in fact, take the strategic choice as defenders while one quarter selected prospector and one quarter selected analyser. In contrast, among the foreign-owned
acquisition entry banks, half took the prospector strategic choice and half self-identified as analysers.

The results seem to partially support the proposition with a majority (50%) of private Thai-owned banks identifying their strategic orientation as defenders while no foreign-owned banks identified as defenders. However, Thai-owned survivor banks were not universally defenders, with one in four taking the strategic choice of prospector and another one in four selecting analyser. One possible explanation for this is suggested by Shortell and Zajac’s (1990) who found 95 prospectors, 321 analysers and 31 defenders in a sample after first round data collection but 104 prospectors, 268 analysers, and 35 defenders after second data collection three years later. These types of shift in strategy are consistent with the findings of other researchers, who argue that major environmental changes may necessitate shifts in strategy (Fottler, Phillips, Blair, & Duran, 1990), that these strategic shifts may require a transitional period as banks adjust to their new environments (Byles & Labig, 1996) and that such strategic shifts lead to the expectation of improved performance (Forte et al., 2000; Reger et al., 1992).

Reger (1992) adds that, in the banking industry at least, managers have tended to be conservative in their reaction to deregulated environments, implying that any strategic shifts are likely to be longer term. The Thai banking system was still in a state of transition during the data collection period. However, as this study did not investigate shifts in strategy over time, further research needs to be undertaken to determine whether such shifts were taking place within the study sample. Hence, in the future a longitudinal assessment of strategic shift would be beneficial.
Another possible explanation is suggested by Hussain and Gunasekaran (2002) and Hussain and Hoque (2002) who found that the banking industry operates under the close supervision of the central bank or government and this puts significant coercive pressure on banks.

During the period of deregulation and implementation of the IMF programme, Thailand’s banks were no doubt under intense coercive pressure from regulators, who were carefully monitoring their every move (Casserley et al., 1999; Lawler, Siengthai, & Atmiyanandana, 1998; Phongpaichit et al., 2000). This coercive pressure may have played a key role influencing the choice of banks’ strategy. Moreover as all banks in Thailand face the same coercive pressure it might be the case that some banks mimic the strategies of others, in accordance with the findings of Fligstein (1985), Hussain and Hoque (2002b), and O’Neill, Pouder, and Buchholtz (1998) that firms operating in uncertain environments may often respond by copying each other’s strategy.

Study two further investigates the influence of these coercive and mimetic pressures on the performance measurement used by banks in Thailand.

**4.6 Concerns about the Miles and Snow Typology**

Every generic strategy has strengths and weaknesses and a number of researchers have identified some weaknesses of the Miles and Snow typology. Critics point out that the self-typing paragraph approach may measure intended strategy rather than realised strategy and, while the typology may integrate strategy with structure and
processes, it does not link strategy to company performance (James et al., 1995; Kim et al., 1988; Snow et al., 1980b). It is also seen as lacking an explicit determinant of the degree of environment-strategy fit (Chan et al., 2000; Venkatraman, 1989). Furthermore, respondents (the managers) are usually reluctant to self-type as reactors (Conant et al., 1990; James et al., 1995), and most studies that use the typology approach are based on only one respondent per organization (James et al., 1995). To address those concerns, this study used perceptual self-typing from multiple sources to evaluate reliability and validity.

The study also addresses another concern - whether chief executive officers (CEOs) are true representatives of the organization. As Venkatraman and Grant (1986, p. 81) note "A major assumption underlying strategy studies that have collected data from chief executive officers (CEOs) is that they are true representatives of the organisation and that their responses can be used as valid representations of the organisational phenomenon being studied". Some researchers such as Hambrick and Mason (1984) and Mintzberg (1979) argue that the CEO is representative of the firm as a central member of the dominant coalition.

The methodology used to address this concern involved additional data collection on strategy self-typing from senior managers and middle managers at all of the sample banks. Overall, the results indicated that there are no significant differences in self-typing of strategy between different levels of management within the same bank. However, foreign-owned banks generally scored slightly higher in terms of delivery of strategy to each level of employees than Thai-owned banks. Thomas et al., (1991) note that companies in which strategy is well understood by managers perform better
than companies where that is not the case, a finding later confirmed by additional research (Thomas, Litschert, & Ramaswamy, 1991; Thomas & Ramaswamy, 1996).

### 4.7 Conclusion

The purpose of this study was to explore the strategic choices of banks in Thailand after the industry faced deregulation in the aftermath of the 1997 financial crisis to gain insight into the banks’ performance measurement choices.

The banks that survived acquisition entry are the private Thai-owned banks. Of the Thai-owned banks, half self-identified as defenders, 25% as prospectors and the remaining 25% as analysers. In contrast, amongst the foreign-owned banks, 50% identified their strategic choice as prospectors and the other 50% as analysers. As the literature on the Miles and Snow strategic typologies makes clear, prospectors, defenders, and analysers have different characteristics. These characteristics are manifested in different focuses on or approaches to pro-activeness, competitive advantage and market focus and these differences, in turn, influence the performance measurement system used to pursue their strategic objectives. The choice of performance measurement by the banks and the factors that influence that choice are discussed in the next chapter, in order to examine the role that institutional forces play in the choice of performance measurement system.
Chapter 5

Performance Measurement in the Thai Banking Industry

5.1 Introduction

In the previous chapter, strategic orientation of firms operating within the Thai banking industry was explored. The conclusion from that chapter suggested that irrespective of ownership the banks operating in Thailand followed a range of strategies. Those differing strategic orientations suggest that performance measurement in the banks may also differ.

This chapter extends on study one and aims to further examine what factors influence the performance measurement system (Young et al., 1991). Specially, this study examines whether the adoption of specific strategic orientations influences the type and number of performance measures in the Thai banking industry. Moreover, this study also examines the relative influence of financial and non-financial performance measures on short-term and long-term decision-making. This study will be presented in its two phases: an exploratory qualitative study will be presented first, followed by a more rigorous quantitative investigation.
5.2 Study Rationale

Accepting Chandler’s (1962, p. 13) definition of strategy as the "setting of long-term goals and objectives to be achieved through proper action and resource allocation", this study aims to investigate the performance measures that drive a firm’s long-term goals and objectives.

Otley (1980) argues that there is no universally appropriate performance measurement system, which applies equally to all companies in all circumstances. According to the contingency perspective, a company develops its strategy based on the external environment it faces and this, in turn, influences the type of performance measurement used (Young et al., 1991). Institutional theory also suggests that a company’s adoption of a performance measure system is based on economic factors, coercive pressure, normative influence and mimetic factors (DiMaggio et al., 1991b; Hussain et al., 2002a).

The results of study one indicated that most Thai-owned banks were characterised as defenders, while the foreign-owned banks were an equal mix of prospectors and analysers. Differences in strategy can be expected to result in differences in focus on key performance indicators depending on the type of strategy adopted. This leads to the following research questions to be explored in this study:

**Research Question 1:** What are the drivers of performance measurement choice?
Research Question 2: Is there a significant difference in the type and application of performance management measures utilised by defender, prospector and analyser banks regardless of ownership?

Research Question 3: Is there a significant difference in the use of non-financial and financial measures for short-term and long-term decision making by prospectors, defenders, and analysers regardless of ownership?

Research Question 4: What factors account for differences (or lack of differences) in the type and application of performance management measures utilised for short-term and long-term decision making by each strategy type?

5.3 Research Methodology

The goals of this study are: to gain a better understanding of the types of measures that are used in firm performance measurement systems within the prospector, analyser, and defender banks; and to determine whether financial or non-financial measures are used more often for decision-making purposes in this environment. In light of these goals, a blend of qualitative and quantitative data was collected.

This study uses the Balanced Scorecard (BSC) framework to investigate the performance measures adopted by the banks. The BSC is used because it is effective in looking at an organisation’s performance across a wide range of measures (Kaplan et al., 2001b); allows for quantification of processes and outputs (Kueng, 2000); provides a way of categorising non-financial measures across three additional
perspectives – customer, internal business process and learning and growth - to complement and augment traditional financial measures (Kaplan et al., 2001a); and allows for focus on the business unit level (Kaplan et al., 2001a; Kueng, 2000; Light, 1998; Parmenter, 2003).

The research design in this study adopted a two-stage process. First, in-depth interviews were used to explore the research questions. Second, additional data was collected via a self-report questionnaire, which was developed from the research findings obtained from the interview process, on what types of measures are used in performance measurement and whether financial or non-financial measures are more important for short-term and long-term decision making at the banks. The remainder of this chapter will report on this two-part study. First, the methodology and outcomes of the qualitative study will be presented, followed by the methodology and outcomes of the quantitative study.

5.3.1 Qualitative Research Study

As Creswell (1994) notes, a qualitative approach is ideal for exploration of questions that do not have a narrowly defined group of variables but where the relationships among a wide variety of variables are in need of investigation. Specifically, field research in the form of interviews is deemed suitable for exploratory or descriptive types of work (Brinberg, Shields, & Young, 1990; Ghauri, Gronhaug, & Kristianslund, 1995) as the emerging stories, filled with rich detail gleaned from participants, lend understanding to the questions of the qualitative research (Rubin & Rubin, 1995). Thus, in this study, in-depth interviews via the convergent interview
technique were used to obtain qualitative data based on a number of factors. Interviews were conducted with 24 branch managers at eight banks in Thailand, comprising both private Thai-owned banks and foreign-owned banks.

Method of Research

The interviews sought to collect more extensive data about the use of performance measures at Thai banks and the role of these measures in achieving stakeholder satisfaction and long-term growth. The interviews were intended to help the researcher to describe real phenomena of this study and increase the external validity of this study (Kaplan, 1986). The interviews are also used as a platform from which further data gathering could be undertaken.

“The advantage of in-depth interviews is that we can have a more accurate and clear picture of a respondent’s position or behaviour. This is possible because of open-ended questions and because respondents are free to answer according to their own thinking, as we have not constrained answers by a few alternatives. This is also true in the case of complicated or sensitive issues, where the interviewer can ask for further elaboration of answers and attitudes” (Ghauri et al. 1995, p. 65).

Personal interviews were conducted with bank managers at all eight of the private Thai-owned and foreign-owned banks in the sample. These interviews were informal in nature so the researcher could probe beyond the ‘yes’ or ‘no’ responses and expand on the interviewees’ responses to questions (Jones, 1991). Specifically, this informal approach allowed the researcher to vary the sequence of questions, explain meanings,
and add additional words or change the wording. The ways of asking and the sequence of the questions were determined by the actual situations confronted during the interviews. The questions were prepared in advance as a guideline, although not all were used. The questions touched on what types of performance measures respondents use as part of managing the branch’s overall performance, general performance evaluation at the branch and which measures were most important for short-term decision-making and long-term decision-making (the interview questions for this study are included in appendix 1).

Specially, the convergent interview technique was used in this study (Dick, 1990) as a framework for the continuous refinement of the interview questions and the questionnaires. There are several reasons why this technique was chosen. First, convergent interviewing lets the data determine the sample size. In doing so, the confidence as to the amount of variability within the study subjects is guided by the sample itself and not some predetermined amount. Second, convergent interviewing offers somewhat more rigorous and more economical data collection than qualitative methods usually do. Third, in using face-to-face in-depth interviewing, convergent interviewing helps to increase the richness and quality of information over other structured forms of interviewing, with little loss of rigour (Dick, 1990).

Figure 5.1 was used as a guide for the development of the interview schedule and analysis of the interviews at each stage of data collection. According to Dick (1990) the first step in convergent interviewing is to set up the exploratory research questions, similar to those presented in section 5.2.
The second step involves identifying the information needed from the target population. The information needed relates to the type and application of performance measures within the Thai banking system. The target population was therefore managers of prospector banks, analyser banks and defender banks regardless of ownership. The eight banks examined in study one were included as part of this study.

Based on the research questions previously described, an interview schedule was developed to guide all interviews. The guide contained two sections. The first section dealt with issues of firm performance measurement and sought to tap the types of measures used by the sample. The first section comprised of 22 open-ended questions. The second section of the interview schedule was used to examine the application of the performance measures for decision-making. This section contained seven open-ended questions to ascertain which measures (financial or non-financial) most often affect the decision-making process.
Figure 5.1 Convergent Interviewing Process

Interviews were conducted with 24 bank managers divided equally between the eight banks. Bank managers were interviewed singly, but the interviews were analysed in pairs according to the convergent interviewing methodology discussed by Dick (1990). All interviews took between 50 and 90 minutes to complete. Notes were taken during all interviews. In addition, some interviews were recorded after obtaining permission from the interviewees, although this was a sensitive issue for some participants. Each pair of interviews was followed by an interpretation session in which the notes were compared with the notes from all the previous pairs of interviews. This interpretation session consisted of the preparation of summary notes and an analysis of these notes.

In interpreting these notes two main strategies were adopted. First, any issues raised by the respondents, in order of priority were detailed. Second, the issues were interpreted by developing a summary report, which would be used as part of the final report.

In preparing the summary report, the mass of information was reduced by setting aside any information provided by only one respondent. Only information and issues which overlapped with previously raised issues were retained. After each pair of interviews, changes were made in order to reflect current results and maintain objectivity. The results and data analysis of these interviews were used for developing the survey questionnaire and final report.


**Data Analysis**

Content analysis of the data was used to identify key themes and issues relevant to the objectives of this study (Dick, 1990). As Berelson (1952, p. 18) states, content analysis is "a research technique for the objective, systematic, and quantitative description of the manifest content of communications". Following completion of the interviews and based on analysis of the interviews, a questionnaire was developed for the quantitative survey undertaken of the branch managers of both Thai-owned banks and foreign-owned banks.

**Interview Outcomes**

This section presents a summary of findings from the interviews of branch managers conducted for this study. One-on-one interviews were conducted with 24 managers at eight banks. Table 5.1 compares the banks according to assets and number of branches. The private Thai-owned banks were larger than the foreign-owned banks. On average, private Thai-owned banks were more than eight times larger than foreign-owned banks in terms of total assets and nearly seven times larger in terms of number of branches. The identities of the respondents or the banks for which they work are not revealed as the respondents were guaranteed anonymity. Banks are referred to only by their self-typed strategy typology (prospector, defender or analyser).
Table 5.1 Assets and Number of Branches of Banks in Thailand

<table>
<thead>
<tr>
<th>Type of Banks</th>
<th>Assets</th>
<th>Branches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai-owned banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bank A (Analyser)</td>
<td>1,237,226.60</td>
<td>484</td>
</tr>
<tr>
<td>• Bank B (Prospector)</td>
<td>762,260.06</td>
<td>437</td>
</tr>
<tr>
<td>• Bank C (Defender)</td>
<td>455,494.82</td>
<td>323</td>
</tr>
<tr>
<td>• Bank D (Defender)</td>
<td>681,744.31</td>
<td>382</td>
</tr>
<tr>
<td>Average</td>
<td>784,181.44</td>
<td>407</td>
</tr>
<tr>
<td>Foreign-owned bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bank W (Prospector)</td>
<td>156,163.15</td>
<td>88</td>
</tr>
<tr>
<td>• Bank X (Prospector)</td>
<td>100,233.76</td>
<td>62</td>
</tr>
<tr>
<td>• Bank Y (Analyser)</td>
<td>66,321.72</td>
<td>47</td>
</tr>
<tr>
<td>• Bank Z (Analyser)</td>
<td>55,802.74</td>
<td>44</td>
</tr>
<tr>
<td>Average</td>
<td>94,630.34</td>
<td>60</td>
</tr>
</tbody>
</table>

Figures are average of 5 years (1998-2002); 1 Million Baht

Source: Bank of Thailand and the Stock Exchange of Thailand

Overall, a number of main themes emerged. The first related to the need to concentrate on financial performance and financial performance indicators, especially in the short-term as the banks struggled to deal with their NPL problem and the effects of the crisis-induced recession. The prospector banks consist of one Thai-owned bank and two foreign-owned banks. One respondent at the Thai-owned prospector bank summed up the state of the industry: “the banks are still struggling with the NPLs and the main concern for the banks is how to deal with loans that have turned bad and to try to focus on those loans already made to customers. Banks are making hardly any loans to new customers as the economy remains in turmoil at this time” (respondent number one at bank B). As a result, the Thai-owned prospector bank is mainly focused on short-term financial measures necessary to deal with the situation at hand (i.e., recapitalising and laying off employees to cuts costs). Most of the respondents from the Thai-owned prospector bank agreed that because of the situation at the time, financial measures were of greater importance than non-financial measures.
The views were similar at the foreign-owned prospector banks with respondents agreeing that Thailand’s severe economic recession was forcing banks to concentrate on improving financial performance and thus to stress financial measures over non-financial measures. However, the foreign-owned prospector banks were in a somewhat different situation as their parent banks were among the largest banks in the world. The respondents expected the NPL situation at their banks to be resolved as they received financial support from their parent banks. According to the respondents, their banks would return to a normal operating environment in the near future.

The analyser banks consist of one Thai-owned bank and two foreign-owned banks. The Thai-owned analyser is a very large bank and holds a huge market share. It too is facing a serious NPL problem just like its Thai-owned prospector and defender counterparts. However, the bank’s historically strong position and profitability have enabled it to avoid tapping the government’s bailout fund to deal with its NPL problem. Instead, the bank is trying to find new investors outside the country and they believe they will be successful in raising capital on their own.

Although this theme of the need to focus on financial measures in the short-term was common to all of the banks, it was especially pronounced among the defender banks. In this case, the defender banks consist of just two Thai-owned banks. Although larger than the foreign-owned banks, the Thai-owned defender banks were smaller than the Thai-owned analyser and prospector banks and had neither the greater resources of their larger Thai counterparts or the backing of a large foreign parent. Both banks were facing high levels of NPLs and were still unable to raise enough capital to cover their recapitalisation needs. As one respondent put it, “the bank was
attempting to raise a significant amount of capital to cover the losses that the bank must absorb as it retires NPLs at a discount, but the bank is still struggling to obtain the new capital” (respondent number three at bank D). Moreover, another respondent stated that, “a high percentage of the bank’s bad loans were made to those politically connected, creating an NPL problem that is very difficult to resolve. The bank has tapped the fund set up by the government to help deal with the NPL problem” (respondent number three at bank C). Given their precarious position, the defender banks’ paramount focus on financial performance means they must focus mainly on financial measures. According to the respondents, the banks have to strengthen their financial position simply to recapitalise and survive the recession.

The second key theme to emerge from the interviews was recognition for the need to include non-financial measures. Although the need to deal with the fallout from the NPL problem and the recession meant a short-term emphasis on financial measures, non-financial measures were not ignored. According to respondents from the Thai-owned prospector bank, their bank was the first in the Thai banking sector to re-organise even before the financial crisis in 1997. Non-financial measures had the attention of top executives. The non-financial measures were often used along with the regular financial measures. Although the focus had shifted to financial measures since the financial crisis, they also widely believed that non-financial measures, especially customer-focused measures such as customer satisfaction, customer complaints, and customer waiting times, would be helpful in improving financial performance and also help them to meet the bank’s strategic objectives. According to one respondent “the bank was the first bank in Thailand to re-engineer and to actively strive to gain customer satisfaction with our service and quality through trying to
reduce customer waiting times and offer customers alternatives such as auto deposit and telephone banking" (respondent number three at bank B).

Moreover, a number of respondents also noted that the crisis forced the bank to cut costs through layoffs of employees. This issue raised awareness and the importance of employee measures such as absenteeism, productivity, and training and development measures. On this point, respondents from the foreign-owned prospector banks share the same view.

The foreign-owned prospector banks also stressed the importance of non-financial measures. According to one of the respondents, "since the bank was taken over by the parent bank, the bank policy has been to concentrate on increasing market share by offering new services, such as opening branches in department stores and opening some branches seven days a week" (respondent number two at bank W).

Respondents from both the Thai-owned and foreign-owned prospector banks indicated that non-financial measures were receiving significant attention from the bank’s top executives. They also agreed that for long-term planning and when the situation in the banking industry stabilises and returns to normal, non-financial measures would receive even greater focus. Both Thai-owned and foreign-owned banks were at the time trying to maintain and grow market share by offering a wide spectrum of commercial and investment banking products and service to their customers, both individuals and corporations. The foreign-owned banks, in particular, were receiving support from their parent banks, which already offered a wide range of services through their domestic and international networks.
Even the financially focused defender banks, however, seemed to understand the importance of non-financial measures. According to respondents at one of the defender banks, that bank had hired a consultant from overseas to help the bank develop a performance measurement and compensation system along the lines of the Balanced Scorecard tool.

Although respondents from the Thai-owned analyser concede that the current uncertainty requires greater concentration on financial performance, the bank does pay attention to non-financial measures as a means to retain its strong customer base and large market share. Non-financial measures remain an important part of their performance management system.

The foreign-owned analysers benefit from the deep pockets of their foreign parent banks in dealing with their NPL problem. As a result, they are able to focus more on building market share and drawing on their parent banks’ expertise to expand their range of products and service offerings. At the same time, the banks must also closely monitor financial performance. As one respondent explained “although the bank has made much progress in solving the NPL problem, the quality of customers remains poor as a result of the continued economic downturn and we don’t want to create or acquire new NPLs. We have to be very careful in making new loans and assessing the creditworthiness of customers” (respondent number one of bank Z). Although acknowledging the importance of financial measures, particularly in the short-term, respondents from the foreign-owned analyser banks generally emphasised the importance of non-financial measures for long-term decision-making.
The third theme evident from the interviews was that customer satisfaction is a key player in firm performance. For the long-run, customer satisfaction was seen as the key measure to drive improved company performance by all three typologies.

As one respondent from the Thai-owned prospector bank explained, “providing high quality financial and information services to customers is the first priority for the banks and that is why we are re-engineering our bank. The importance of developing an efficient performance measurement and compensation system to achieve the bank’s goals is driven from the very top” (respondent number three at bank B).

The defender banks expect their major customers will remain with them (for political reasons) and they will seek to retain retail customers by improving the quality of service. But, they are frank in acknowledging that using non-financial measures to retain and grow their customer base is more a focus for the future; at present, they are in a fight to survive and re-establish profitability, necessitating a focus on financial measures. As one respondent explained “the bank’s real-time financial results are critical for day-to-day decision making” (respondent number one at bank D). For long-term decision-making, respondents at defender banks place equal importance on financial and non-financial measures.

According to respondents from the Thai-owned analyser bank, customer retention is especially critical in light of the opening of the domestic market to foreign competition. The bank monitors the market closely and emphasises its breadth of products and services and quality control in seeking to increase customer satisfaction.
At the same time, the bank closely monitors financial performance and regularly uses a defined set of financial measures. Respondents also indicated that large-scale layoffs at the bank have necessitated continuous monitoring of employee performance. As one respondent explained: “the bank uses some employee measures to help to make decisions on which employees to keep and which ones to let go, and, for those kept, to provide appropriate development and training” (respondent number one at bank A). For long-term decision-making, the respondents stressed the importance of non-financial measures along with financial measures.

**Discussion of Results**

Overall, the results from interviews with managers at prospector, analyser and defender banks indicate that the financial crisis in 1997 created considerable uncertainty in Thailand’s banking industry and this, in turn, influenced the performance measurement practices of the banks. The massive increase in NPLs across the industry as a result of the crisis (Phongpaichit et al., 2000; Sahasakul, 1999; Vajragupta et al., 2000) and the resultant regulatory and recapitalisation requirements imposed by the Bank of Thailand left all of the banks with little choice but to focus on financial measures for their short-term decision making.

However, the interview evidence also indicates that non-financial measures still play a key role in the banks’ long-term decision making and strategic objectives (Kaplan et al., 1992; Light, 1998; Miles et al., 1978a). The interviews also indicate that the increased competition resulting from deregulation is forcing the banks to improve
their competitiveness by focusing more on non-financial measures, such as customer satisfaction, customer complaints, service quality and the like.

However, the generalisability of the interview results is somewhat limited as the number of interview respondents was small. The nature of performance measurement adopted by these banks, therefore, was further investigated by using a quantitative approach. Quantitative data collected on the performance measurement system used by the banks will be examined and discussed in the remainder of this chapter.

5.3.2 Quantitative Research Study

The objective of collecting this data was to further develop and improve understanding of the performance measurement system utilised by prospector, analyser, and defender banks and explore the measures that influence both their short-term and long-term decision making.

Sample

In this phase, a survey was conducted among a random sample of 60 branch managers divided roughly equally among the eight banks. A random sample of branch managers participated in this study were collected in Bangkok city.
Method of Research

Branch managers were contacted by telephone requesting their participation in the survey. After obtaining consent, questionnaires were hand-delivered to the branch managers, and completed surveys were collected by this researcher.

The questionnaire comprised of two sections: financial measures and non-financial measures. The financial measures section included five measures. The non-financial measures section included three non-financial measures sub-sections; customer measures (fourteen measures), employee measures (seven measures), and product measures (seven measures) along the lines of the Balanced Scorecard framework. Respondents were asked which measures they used in each measure area and, if they indicated use of a particular measure, they were asked how often they used the measure with five response choices: always, often, sometimes, rarely, and never (a sample questionnaire is presented in Table 5.2).
Table 5.2 Sample Questionnaires on Use of Financial and Non-financial Measures

<table>
<thead>
<tr>
<th>Financial Measures</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch Profit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Net Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branch Operating costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-financial Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Measures</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Customer Retention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Acquisition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Measures</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Staff Turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit by Product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Transactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost per Product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Share per Product</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
The questionnaire was based on analysis of the interviews and also drew on some of the dimensions outlined by Albright et al., (2001), Aliber (1984), and Kaplan and Norton (1996, 2001). Most questions regarding the relative importance of measures were based on the five-point Likert type scale. In this study, the Likert scaling technique was adopted to capture the responses of the variables being investigated (Collis & Hussey, 2003; Hayes, 1998; Sekaran, 1983). Sekaran (1992) and Zikmund, (1997) suggest that the Likert scale is suitable for use as an attitudinal scale. According to Hayes (1998), the minimum needed to effectively differentiate between respondents is a five-point scale. Therefore, all the constructs in the questionnaire adopted a five point Likert-type scale.

**Data Analysis**

In examining the quantitative data, the Statistical Package for Social Sciences (SPSS) software (version 11.5 for windows) was employed to analyse the data in this phase. Key issues in statistical testing include whether to use parametric or non-parametric tests and which test statistics to employ. Due to the relatively small sample size (n = 60) the choice of parametric or non-parametric tests is a concern.

Researchers such as Coakes and Steed (2001), Meyer (1993), Moore and McCabe (1999) and Morgan and Griego (1997) suggest that parametric analysis can be used with small sample sizes. However, some researchers are convinced that a relatively small sample is not sufficient to show clearly the distribution of the sample and, therefore, non-parametric analyses should be used because the non-parametric test is a distribution-free technique of statistical analysis (Cooper & Emory, 1995; Kinnear &
Gray, 2000; Thompson, 1988). To avoid this argument and enhance the reliability of the study, both parametric and non-parametric techniques were used to analyse the data and test the results.

Specifically, the chi-square test was used to test for association in two-way contingency data. The Pearson correlation coefficient and Spearman's rang correlation were used to measure association between the variables in this study (performance measurement and decision making). The independent groups t-test and the Mann-Whitney U test were used to assess whether there are differences in the use of measures between Thai-owned banks and foreign-owned banks. The One-Way ANOVA test and Kruskal-Wallis test were used to assess whether there are differences in the use of measures between the prospector, defender, and analyser typologies.

**Survey Outcomes**

Sixty bank branch managers responded to the hand-delivered survey with a total of 23 respondents from prospector banks, 23 from analyser banks and 14 respondents from defender banks. Table 5.3 outlines the demographic characteristics of the respondents.

Overall, over 70% of the respondents were male and were between the ages of 30 to 39 years. In terms of education, the majority of respondents reported holding a postgraduate degree as their highest level of educational attainment. By length of
tenure in their present positions, an average of 60% of respondents reported holding their current bank position for 3 to 4 years.

Table 5.3 Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Characteristics of respondents</th>
<th>Prospector banks (n = 23)</th>
<th>Defender banks (n = 14)</th>
<th>Analyser banks (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>91</td>
<td>79</td>
<td>91</td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>5</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>30-39</td>
<td>65</td>
<td>71</td>
<td>74</td>
</tr>
<tr>
<td>40-50</td>
<td>30</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Educational Attainment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>35</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>65</td>
<td>64</td>
<td>70</td>
</tr>
<tr>
<td>Number of years working in manager position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 years</td>
<td>26</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>3-4 years</td>
<td>57</td>
<td>64</td>
<td>61</td>
</tr>
<tr>
<td>5 years and above</td>
<td>17</td>
<td>22</td>
<td>9</td>
</tr>
</tbody>
</table>

Chi-Square tests for independence across the samples were undertaken to check for significant differences within the sample. The groups were found to be similar in terms of respondents’ gender, age, education and tenure. Therefore, it appeared that irrespective of bank type the respondents are fairly similar suggesting that any potential differences found are not likely to be due to respondent characteristics.
Comparison of Survey Results by Strategy Typology

Table 5.4 reports upon the numbers of performance measures used across the different bank typology types.

Table 5.4 Comparison of Typologies by Number of Measures Used

<table>
<thead>
<tr>
<th>Measures Focus</th>
<th>Prospectors banks (n=23)</th>
<th>Defenders banks (n=14)</th>
<th>Analysers Banks (n=23)</th>
<th>Kruskal-Wallis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean  SD</td>
<td>Mean  SD</td>
<td>Mean  SD</td>
<td>χ²     p</td>
</tr>
<tr>
<td>Financial</td>
<td>4.83  1.19</td>
<td>3.79  1.31</td>
<td>5.26  1.10</td>
<td>12.169 0.002</td>
</tr>
<tr>
<td>Non-financial</td>
<td>21.87 1.98</td>
<td>20.86 1.83</td>
<td>21.96 1.85</td>
<td>3.231 0.199</td>
</tr>
<tr>
<td></td>
<td>11.70 1.11</td>
<td>11.07 0.83</td>
<td>11.52 0.99</td>
<td>3.601 0.165</td>
</tr>
<tr>
<td>-Customer</td>
<td>5.57 0.79</td>
<td>5.79 0.89</td>
<td>5.82 0.83</td>
<td>0.783 0.692</td>
</tr>
<tr>
<td>-Employee</td>
<td>4.35 1.03</td>
<td>4.00 0.88</td>
<td>4.57 0.90</td>
<td>2.736 0.255</td>
</tr>
</tbody>
</table>

As the results indicate, analyser banks relied on more financial measures than prospectors and defenders, while prospectors used more financial measures than defenders. This is confirmed by the Kruskal-Wallis One-Way ANOVA test, which shows that there are significant differences between prospectors, defenders, and analysers in terms of the total number of measures used (p < .05).

In terms of the number of non-financial measures used, analyser banks and prospector banks reported using slightly more non-financial measures than defender banks. However, there was no significant difference between prospectors, defenders, and analysers in terms of the total number of non-financial measures used (p > .05).
Financial Performance Measures

Overall, managers at the analyser banks reported a mean usage of more financial measures ($M= 5.26$, $SD= 1.10$) than managers at prospector banks ($M= 4.83$, $SD= 1.19$) or defender banks ($M= 3.79$, $SD= 1.31$). Table 5.5 presents a breakdown of the use of six identified financial sub-measures and shows that across five of the six measures, there are no differences between the three typologies. Only on the measure of return on net-assets is there a significant difference with the Kruskal-Wallis One-Way ANOVA test showing a value of $p < .05$. Managers at prospectors ($M= 0.83$, $SD= 0.39$) and analysers ($M= 0.82$, $SD= 0.21$) reported a greater mean usage of the return on net-asset measure than managers at defender banks ($M= 0.57$, $SD= 0.51$).

Table 5.5 Use of Financial Measures by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Prospector banks ($n=23$)</th>
<th>Defender banks ($n= 14$)</th>
<th>Analyser banks ($n= 23$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch operating costs</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Branch profit</td>
<td>83</td>
<td>71</td>
<td>87</td>
</tr>
<tr>
<td>Product profitability</td>
<td>65</td>
<td>64</td>
<td>78</td>
</tr>
<tr>
<td>Return on capital</td>
<td>83</td>
<td>64</td>
<td>91</td>
</tr>
<tr>
<td>Return on equity</td>
<td>83</td>
<td>57</td>
<td>87</td>
</tr>
<tr>
<td>Return on net assets</td>
<td>83</td>
<td>57</td>
<td>96</td>
</tr>
</tbody>
</table>

Frequency of use of various financial measures by prospectors, defenders, and analysers is shown in table 5.6. The results indicate that frequency of use of three measures - branch profit, return on equity and return on net assets - differed significantly between the three typologies. The majority of respondents at prospectors
banks (57%) and defender banks (43%) reported always using the Branch profit measure, while the bulk of respondents at analyser banks (48%) reported often using this measure ($\chi^2(8, N = 60) = 14.861, p = 0.026$). A majority of respondents at prospector banks (65%) and analyser banks (48%) reported always using the Return on equity measure, while respondents at defender banks were equally split (21% each) between often, sometimes, rarely and never using this measure ($\chi^2(8, N = 60) = 15.883, p = 0.019$). Most respondents at analyser banks (70%), prospector banks (44%) and defender banks (36%) reported always using the Return on net assets measure ($\chi^2(8, N = 60) = 15.736, p = 0.025$).

Table 5.6 Frequency of Use of Financial Measures by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Always (%)</th>
<th>Often (%)</th>
<th>Sometimes (%)</th>
<th>Rarely (%)</th>
<th>Never (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch operation costs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Analysers</td>
<td>70</td>
<td>26</td>
<td>-</td>
<td>-</td>
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</tr>
</tbody>
</table>

- = Not reported
For the other three financial measures - Branch operation costs, Product profitability, and Return on capital - the chi-square test indicates no differences in the frequency of reported use between the typologies (p > .05).

Thus, overall, in terms of financial measures, respondents at analyser banks reported somewhat greater usage of financial measures than respondents at prospector and defender banks. However, as the results indicate, with the exception of the Return on net assets measure, these differences were not statistically significant.

**Non-financial Performance Measures**

**Customer measures area:** Overall in this area, the managers at the prospector banks, defender banks and analyser banks, on average, reported using a similar number of customer measures (see table 5.7). Similarly, there is no significant difference between the three typologies in the reported use of any of the fourteen customer measures as confirmed by the Kruskal-Wallis One-Way ANOVA test (p > .05).
Table 5.7 Use of Customer Measures by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Prospectors (n=23)</th>
<th>Defenders (n=14)</th>
<th>Analysers (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer retention</td>
<td>96%</td>
<td>86%</td>
<td>91%</td>
</tr>
<tr>
<td>Customer profitability</td>
<td>100%</td>
<td>86%</td>
<td>96%</td>
</tr>
<tr>
<td>Customer acquisition</td>
<td>87%</td>
<td>100%</td>
<td>91%</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Customer complaints</td>
<td>96%</td>
<td>93%</td>
<td>96%</td>
</tr>
<tr>
<td>Customer waiting</td>
<td>74%</td>
<td>71%</td>
<td>70%</td>
</tr>
<tr>
<td>Market penetration</td>
<td>87%</td>
<td>93%</td>
<td>91%</td>
</tr>
<tr>
<td>Market share</td>
<td>57%</td>
<td>43%</td>
<td>48%</td>
</tr>
<tr>
<td>Staff availability</td>
<td>83%</td>
<td>64%</td>
<td>78%</td>
</tr>
<tr>
<td>Staff speed and responsiveness</td>
<td>83%</td>
<td>71%</td>
<td>74%</td>
</tr>
<tr>
<td>Staff skill and competence</td>
<td>87%</td>
<td>93%</td>
<td>91%</td>
</tr>
<tr>
<td>Staff appearance and friendliness</td>
<td>83%</td>
<td>79%</td>
<td>83%</td>
</tr>
<tr>
<td>Staff discretion</td>
<td>70%</td>
<td>50%</td>
<td>70%</td>
</tr>
<tr>
<td>Number of new accounts opened</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

In terms of frequency of use of each customer measure by typology, table 5.8 indicates that the most frequently used customers measures were Customer satisfaction, Customer complaint and Number of new accounts opened with 100% reported usage by all three groups. However, a majority of respondents at defender banks (57%) reported always using the Customer satisfaction measure, while majorities of respondents at prospector banks (52%) and analyser banks (52%) reported often using this measure.
Most respondents across all three typologies (61% of prospectors, 57% of analysers and 50% of defenders) reported often using the Customer complaint measure. As for the Number of new accounts opened measure, the majority of respondents at prospector banks (65%) and defender banks (64%) reported always using this measure while the majority of respondents at analyser banks (52%) reported often using it. However, for all three of these measures, the chi-square test indicates no significant difference in reported use within the three typologies.

There are only two measures for which the chi-square test indicates that there are differences in frequency of use across the three groups: Customer retention and Customer profitability. For the Customer retention measure, the majority of respondents at prospector banks (52%) and at defender banks (50%) reported always using this measure, while the majority of respondents at analyser banks (52%) reported often using this measure ($\chi^2(6,N = 60) = 19.428, p = 0.001$). Similarly, the majority of respondents at prospector banks (70%) and defender banks (64%) reported always using the Customer profitability measure, while the majority of respondents at analyser banks (48%) reported often using this measure ($\chi^2(6,N = 60) = 11.911, p = 0.022$).

The majority of respondents at all three bank types reported often using the Customer waiting, Market penetration, Staff availability, Staff speed and responsiveness, Staff skill and competence, and Staff appearance and friendliness measures with no difference in frequency between the typologies ($p > .05$). In contrast, the majority of respondents at defender banks (86%) and prospector banks (61%) reported always using the Customer acquisition measure, while the majority of respondents at analyser
banks (48%) reported often using this measure, although the chi-square indicates no significant difference in frequency of use (p > .05).

The least used customer measure was Market share with 57% of respondents at defender banks, 43% at analyser banks and 30% at prospector banks reporting that they never used this measure. Although a similar proportion of each of the three groups reported often using the Staff discretion measure, 50% of respondents at defender banks reported never using this measure. The chi-square test indicates no significant difference in frequency of use of this measure.
Table 5.8 Frequency of Use of Customer Measures by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Always (%)</th>
<th>Often (%)</th>
<th>Sometimes (%)</th>
<th>Rarely (%)</th>
<th>Never (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer retention</td>
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</tr>
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<td>36</td>
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<td>-</td>
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<tr>
<td>Customer profitability</td>
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<td>7</td>
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<td>14</td>
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<td>13</td>
<td>-</td>
<td>9</td>
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<tr>
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Table 5.8 (Continued)

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<th>Sometimes (%)</th>
<th>Rarely (%)</th>
<th>Never (%)</th>
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<td>Staff discretion</td>
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<tr>
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<td>48</td>
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<td>Number of new accounts opened</td>
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<td>• Defenders</td>
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<td>39</td>
<td>52</td>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- = Not reported

**Employee measures area:** Overall, there is no difference in the number of employee measures used between the three banking groups as confirmed by the Kruskal-Wallis One-Way ANOVA test ($p > .05$).

Staff turnover and Training and development were used by 100% of the respondents from all three typologies while the Absenteeism measure was used by 100% of respondents at defender banks, and 100% of respondents at analyser banks used the Productivity measure (**See Table 5.9**).
Table 5.9 Use of Employee Measures by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Prospector banks (n=23)</th>
<th>Defender banks (n=14)</th>
<th>Analyser banks (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>83</td>
<td>100</td>
<td>87</td>
</tr>
<tr>
<td>Morale</td>
<td>52</td>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>Prestige</td>
<td>65</td>
<td>50</td>
<td>65</td>
</tr>
<tr>
<td>Productivity</td>
<td>83</td>
<td>93</td>
<td>100</td>
</tr>
<tr>
<td>Promotion</td>
<td>74</td>
<td>86</td>
<td>83</td>
</tr>
<tr>
<td>Staff turnover</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Training and development</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

However, in terms of frequency of use Table 5.10 indicates that there are significant differences between the three typologies in three of the employee measures used—Staff turnover ($\chi^2(4, N = 60) = 12.863, p = 0.005$), Training and development ($\chi^2(4, N = 60) = 11.908, p = 0.011$) and Productivity ($\chi^2(4, N = 60) = 18.048, p = 0.003$) as indicated by the chi-square test.

Although 100% of respondents in all three groups reported the use of the Staff turnover and Training and development measures (Table 5.9), the majority of respondents at prospector banks (87%) and defender banks (50%) reported always using the Staff turnover measure, while, the majority of respondents at analyser banks (52%) reported often using this measure.
The majority of respondents at prospector banks (61%) and a plurality of respondents at analyser banks (48%) reported always using the Training and development measure, while respondents at defender banks were split 50:50 between always using and often using this measure.

The majority of respondents at analyser banks (61%) reported always using the Productivity measure, while the majority of respondents at prospector banks (66%) and defender banks (79%) reported often using this measure. There were no differences in frequency of reported use between the typologies for the Absenteeism, Morale, Prestige and Promotion measures.
<table>
<thead>
<tr>
<th>Measures</th>
<th>Always (%)</th>
<th>Often (%)</th>
<th>Sometimes (%)</th>
<th>Rarely (%)</th>
<th>Never (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Absenteeism</strong></td>
<td></td>
<td></td>
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<tr>
<td>• Prospectors</td>
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<td>4</td>
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<tr>
<td>• Defenders</td>
<td>36</td>
<td>43</td>
<td>21</td>
<td>-</td>
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</tr>
<tr>
<td>• Analysers</td>
<td>13</td>
<td>52</td>
<td>22</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td><strong>Morale</strong></td>
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</tr>
<tr>
<td>• Prospectors</td>
<td>13</td>
<td>39</td>
<td>-</td>
<td>9</td>
<td>39</td>
</tr>
<tr>
<td>• Defenders</td>
<td>14</td>
<td>29</td>
<td>7</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>• Analysers</td>
<td>13</td>
<td>26</td>
<td>9</td>
<td>17</td>
<td>35</td>
</tr>
<tr>
<td><strong>Prestige</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>4</td>
<td>44</td>
<td>13</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>• Defenders</td>
<td>7</td>
<td>43</td>
<td>-</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>• Analysers</td>
<td>4</td>
<td>52</td>
<td>9</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td><strong>Productivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>26</td>
<td>66</td>
<td>-</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>• Defenders</td>
<td>7</td>
<td>79</td>
<td>7</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>• Analysers</td>
<td>61</td>
<td>30</td>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Promotion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>13</td>
<td>52</td>
<td>9</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>• Defenders</td>
<td>36</td>
<td>50</td>
<td>-</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>• Analysers</td>
<td>30</td>
<td>52</td>
<td>-</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td><strong>Staff turnover</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>87</td>
<td>13</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Defenders</td>
<td>50</td>
<td>36</td>
<td>14</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Analysers</td>
<td>39</td>
<td>52</td>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Training and development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>61</td>
<td>39</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Defenders</td>
<td>50</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Analysers</td>
<td>48</td>
<td>22</td>
<td>30</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- = Not reported

**Product measures area:** Overall, there was no difference in the number of product measures used between the three groups as confirmed by the Kruskal-Wallis One-Way ANOVA test ($p > .05$).

The most used product measure was Cost per product with 100% reported use among respondents from all three typologies. The Number of transactions per product
measure was used by 100% of respondents at prospector banks and defender banks (See Table 5.11).

Table 5.11 Use of Product Measures by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Prospectors banks (n=23)</th>
<th>Defenders banks (n=14)</th>
<th>Analysers banks (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per product</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Computer time used per product</td>
<td>9%</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>Innovations</td>
<td>17%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Market share per products</td>
<td>65%</td>
<td>57%</td>
<td>61%</td>
</tr>
<tr>
<td>New product</td>
<td>61%</td>
<td>57%</td>
<td>83%</td>
</tr>
<tr>
<td>Number of transactions per product</td>
<td>100%</td>
<td>100%</td>
<td>96%</td>
</tr>
<tr>
<td>Profit by product</td>
<td>83%</td>
<td>86%</td>
<td>87%</td>
</tr>
</tbody>
</table>

Table 5.12 indicates that a huge majority of respondents at defender banks (93%) reported always using the Cost per product measure, while 70% of respondents at prospector banks and 57% of respondents at analyser banks also reported that they always used this measure. In terms of frequency of use, significant differences among the typologies were found for only two product measures – Computer time used per product ($\chi^2(6,N = 60) = 16.896, p = 0.002$) and Number of transactions per product ($\chi^2(6,N = 60) = 14.742, p = 0.005$).

As table 5.12 shows, a majority of respondents at prospector banks (70%) reported rarely using the Computer time per product measure, while respondents at defender
banks were split 50:50 between rarely and never using this measure and the majority of respondents at analyser banks (66%) reported never using this measure.

### Table 5.12 Frequency of Use of Product Measures by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Always (%)</th>
<th>Often (%)</th>
<th>Sometimes (%)</th>
<th>Rarely (%)</th>
<th>Never (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>70</td>
<td>30</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Defenders</td>
<td>93</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Analysers</td>
<td>57</td>
<td>44</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Computer time used per product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>70</td>
<td>22</td>
</tr>
<tr>
<td>• Defenders</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>• Analysers</td>
<td>-</td>
<td>13</td>
<td>4</td>
<td>17</td>
<td>66</td>
</tr>
<tr>
<td>Innovations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>-</td>
<td>17</td>
<td>-</td>
<td>52</td>
<td>30</td>
</tr>
<tr>
<td>• Defenders</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td>• Analysers</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>52</td>
<td>39</td>
</tr>
<tr>
<td>Market share per product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>13</td>
<td>30</td>
<td>22</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>• Defenders</td>
<td>-</td>
<td>57</td>
<td>-</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>• Analysers</td>
<td>13</td>
<td>48</td>
<td>-</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>New product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>9</td>
<td>48</td>
<td>4</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>• Defenders</td>
<td>-</td>
<td>43</td>
<td>14</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td>• Analysers</td>
<td>-</td>
<td>61</td>
<td>22</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Number of transactions per product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>61</td>
<td>39</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Defenders</td>
<td>14</td>
<td>86</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>• Analysers</td>
<td>35</td>
<td>44</td>
<td>17</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Profit by product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prospectors</td>
<td>13</td>
<td>70</td>
<td>-</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td>• Defenders</td>
<td>36</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>• Analysers</td>
<td>13</td>
<td>57</td>
<td>17</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

- = Not reported

For the Number of transactions per product measure, a majority of respondents at prospector banks (61%) reported always was using the measure, while the majority of
respondents at defender banks (86%) and a plurality of respondents at analyser banks (44%) reported often using this measure.

Thus, in terms of the overall use of non-financial measures, the differences across the three typology groups were not statistically significant. By non-financial measures sub-area, the most frequently used measures across all typologies include six customer measures - customer retention, customer profitability, customer acquisition, customer satisfaction, customer complaints, and number of new accounts opened; four employee measures - absenteeism, productivity, staff turnover, and training and development; and three product measures - cost per product, number of transaction per product, and profit by product measures.

**Relative Importance of Measures**

In addition, the survey asked respondents to indicate which measures were important for their decision making, both short-term and long-term. In terms of short-term decision making (Table 5.13), the results show that the respondents at defender banks relied on financial measures more than non-financial measures (36% reported using only financial measures and 43% reported using financial measures more than non-financial measures for a combined total of 79%; by contrast, only 14% of defender respondents deemed financial and non-financial measures equally important and a mere 7% favoured non-financial measures for their short-term decision making).

Similarly, respondents from analyser banks also generally favoured financial measures over non-financial measures for short-term decision making, but by
somewhat lower margins than defenders (26% of analyser respondents reported using only financial measures and 44% reported using financial measures more than non-financial measures, while 22% ranked financial and non-financial measures as equally important and 9% considered non-financial measures as more important than financial measures for short-term decision making).

In contrast, only 17% of respondents at prospector banks reported using only financial measures and 39% considered financial measures more important than non-financial measures while 26% placed equal reliance on both financial and non-financial measures and 17% considered non-financial measures more important than financial measures for short-term decision-making.

None of the respondents reported using only non-financial measures for their short-term decision making.
Table 5.13 Measures Used for Short-term Decision Making by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Prospector banks (n=23)</th>
<th>Defender banks (n=14)</th>
<th>Analyser banks (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only financial measures are important</td>
<td>17%</td>
<td>36%</td>
<td>26%</td>
</tr>
<tr>
<td>Financial measures are more important than non-financial measures</td>
<td>39%</td>
<td>43%</td>
<td>44%</td>
</tr>
<tr>
<td>Financial and non-financial measures are equally important</td>
<td>26%</td>
<td>14%</td>
<td>22%</td>
</tr>
<tr>
<td>Non-financial measures are more important than financial measures</td>
<td>17%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Only non-financial measures are important</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- = Not report

For **long-term** decision making, the results (Table 5.14) show that respondents from prospector banks and analyser banks placed the greatest importance on non-financial measures with 48% of respondents at prospector banks considering non-financial measures as more important than financial measures and 9% using only non-financial measures for long-term decision making. Respondents at analyser banks were similar in their views, with 48% also considering non-financial measures more important than financial measures and 4% using only non-financial measures.

In contrast, at defender banks, 57% of respondents rated non-financial and financial measures as equally important for their long-term decision making while only 14% considered non-financial measures more important than financial measures and 7% reported using only non-financial measures.
However, the results also show that 30% of respondents at analyser banks considered financial measures more important than non-financial measures for long-term decision making, compared with 21% of respondents at defender banks and only 9% of respondents at prospector banks. None of the respondents in any of the three groups used only financial measures for their long-term decision making.

Table 5.14 Measures Used for Long-term Decision Making by Typology

<table>
<thead>
<tr>
<th>Measures</th>
<th>Prospector banks (n=23)</th>
<th>Defender banks (n=14)</th>
<th>Analyser banks (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only financial measures are important</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Financial measures are more important than non-financial measures</td>
<td>9%</td>
<td>21%</td>
<td>30%</td>
</tr>
<tr>
<td>Financial and non-financial measures are equally important</td>
<td>35%</td>
<td>57%</td>
<td>17%</td>
</tr>
<tr>
<td>Non-financial measures are more important than financial measures</td>
<td>48%</td>
<td>14%</td>
<td>48%</td>
</tr>
<tr>
<td>Only non-financial measures are important</td>
<td>9%</td>
<td>7%</td>
<td>4%</td>
</tr>
</tbody>
</table>

5.4 Summary

Overall, the results indicated that there was no significant difference in the number and type of non-financial measures used among the three typologies with analysers reporting a mean use of slightly more measures than prospectors, who reported using slightly more measures than defenders. Broken down by sub-measure categories, prospectors used more customer measures than analysers while analysers reported using more customer measures than defenders. Analysers reported the use of the most
employee measures, followed by defenders and then prospectors. Analysers also reported using the most product measures followed by prospectors, who reported using more product measures than defenders. Overall, there were no differences in frequency of use of most non-financial measures.

In contrast, however, there were differences in the use of financial measures between the three groups with respondents at analyser banks relying on more financial measures than respondents at prospector banks and respondents at prospector banks using more financial measures than respondents at defender banks.

With respect to the relative importance of non-financial versus financial measures for short-term and long-term decision making, the results showed that for short-term decision making the majority of respondents from all three typologies relied primarily or entirely on financial measures, although a fairly higher percentage (nearly half) of respondents in prospector banks placed equal or greater importance on non-financial measures and respondents at defender banks placed the least amount of importance on non-financial measures.

By contrast, for long-term decision making, while a majority of respondents from defender banks gave equal importance to financial and non-financial measures, most respondents at prospector and analyser banks placed greater importance on non-financial measures than on financial measures.

These survey results from all three typologies on the use of financial and non-financial measures for short-term and long-term decision making were consistent with
the results of the interviews conducted in the qualitative phase of the study. In both phases, respondents from all three typologies stressed their focus on financial measures for short-term decision making while managers at prospector banks and analyser banks placed greater importance on non-financial measures for long-term decision making.

5.5 Discussion

This study investigated performance measurement in Thailand’s banking industry. The research questions in this study consisted of two parts; comparison of the types and frequency of performance measures used between the three strategic typologies irrespective of ownership; and comparison of the relative importance of financial and non-financial measures in short-term and long-term decision-making between the strategic typologies irrespective of ownership.

The results of this study regarding the use of performance measurement for long-term decision-making seem to be consistent with suggestions by Miles and Snow (1978) that prospector and analyser banks are likely to concentrate more on non-financial rather than financial measures, while defender banks are more likely to rely on financial measures. This finding is supported by Byles and Labig (1996), who found that defenders place more importance on financial measures than do prospectors.

The results are also consistent with Ittner et al. (1997), who found that “the relative weight placed on non-financial measures is greater in firms following an innovation orientated ‘prospector’ strategy than in firms following a cost leader or ‘defender’
strategy, thereby suggesting that an organisation’s competitive strategy is perhaps a crucial determinant of the performance measures” (p. 232). This is also consistent with the findings of many other researchers who have used the Miles and Snow typologies to examine the impact of different strategic orientation in their studies (Byles et al., 1996; Castle, 2003; Delery et al., 1996; James et al., 1995; McDaniel et al., 1987; Slater et al., 1993; Zajac et al., 1989).

McDaniel and Kolari (1987) and Miles and Snow (1978) found that defenders tend to focus narrowly on their target market. In contrast, prospectors and, to lesser extent analysers, take a broad view of the target market. This would also seem to explain the finding that Thai-owned banks report less reliance on non-financial measures for long-term decision-making than foreign-owned banks. Thai-owned banks, who are predominately defenders, are focused on protecting their high market share from new entrants (Abe, 1999; Bartholomew et al., 1999; Hewison, 2000; Vatiwutipong, 2000). The foreign-owned banks, in contrast, are prospectors and analysers and these results appear to be consistent with the findings of Byles and Labig (1996) and Miles and Snow (1978) that prospectors tend to be product and market pioneers.

This study’s findings on the use of performance measures for short-term decision making indicate that there are no significant differences between prospectors, defenders, and analysers banks. All three of the typologies placed greater importance on financial measures than non-financial measures for short-term decision-making but, as the results indicate, defenders placed somewhat greater emphasis on financial measures than analysers, who, in turn, placed somewhat greater emphasis on financial measures than prospectors. These results seem to be consistent with previous studies.
that managers operating in an uncertain environment will tend to rely more on financial than non-financial information (Brignall, 1997; Hussain et al., 2002a; Morissette, 1998). This is reflected in the outcome from the interviews.

Thailand’s financial crisis began in 1997 and this study was conducted during a period when the banking industry remained in a highly uncertain economic, regulatory and commercial environment (Arphasil, 2001; Bangkok Post, 2002; Vajragupta et al., 2000). In that regard, the results in this study seem to be consistent with suggestions by the contingency perspective and institutional perspective that external factors (e.g. environmental factors, such as political pressure, culture, industry characteristics, etc.) will affect the performance measurement system (Cobb & Heller, 1995; Young et al., 1991).

There are several possible explanations for the findings in this study that short-term decision-making is driven largely by financial measures while long-term decision-making relies more on non-financial measures.

Firstly, coercive pressure can affect the performance measurement practices of a firm, especially if that firm is in a position of dependency (DiMaggio et al., 1983). Thailand’s banks during the survey period were clearly experiencing coercive pressure from regulators, namely the Bank of Thailand, which, for example, required recapitalisation of all banks to deal with the sector’s massive non-performing loan problem, set stringent new rules on loan classification and nonperforming loans (NPL) reporting in July 1999 and tightened the profit and loss (P&L) treatment of accrued interest in early 2000 (Bank of Thailand, 1999, Bangkok Post, 1999). Banks
had little choice but to focus on these, in effect, mandated financial measures as government take-over was the likely penalty for failure to meet the requirements (Phongpaichit et al., 2000). It seems that this study is consistent with previous studies on the coercive influence of governmental and administrative directives on day-to-day organisational activities (Ansari et al., 1992; Hoque et al., 1994; Hussain et al., 2002a). This is supported by the anecdotal evidence from the interviews conducted.

Secondly, the financial crisis plunged Thailand’s banking industry into recession (Arphasil, 2001; Crispin & Biers, 1999; Gup et al., 1999; Hewison, 2000). With NPLs accounting for nearly half of total loans in Thailand’s financial system (Arphasil, 2001; Crispin et al., 1999; Gup et al., 1999; Hewison, 2000; Phongpaichit et al., 2000), banks had little choice but to stop lending as they recapitalised (Crispin et al., 1999; Phongpaichit et al., 2000). This reality inevitably made the banks focus more on improving and measuring financial performance and is consistent with the findings of a number of researchers who found that a recession forces banks to focus on financial measures more than non-financial measures (Ahmed & Scapens, 1994; Hussain et al., 2002a; Mia & Chenhall, 1994; Morissette, 1998).

Interviews held with study participants indicated a widespread view that the needs and urgency of recapitalisation and dealing with the recession made long-term planning very difficult. The Balance Scorecard (BSC) theory suggests that the non-financial measures are most useful for improving long-term performance (Gumbus, Bellhouse, & Lyons, 2003; Gumbus et al., 2002; Hofféctker et al., 1994; Kaplan et al., 1996a; Lambert, 1998), so given the banks’ inability to undertake long-term planning, the lesser focus in the short-term on non-financial measures is not surprising.
But, while coercive pressure and the difficulties of dealing with a recession may have pushed the banks toward a short-term focus on financial measures, a third factor, in the form of increased competition, seems to have propelled them toward greater emphasis on non-financial measures to improve long-term performance.

Thirdly, the financial crisis forced the Thai government to open the long-protected Thai domestic banking market to foreigners (Phongpaichit et al., 2000; Vatiwutipong, 2000). In that sense, increased competition required management to consider using non-financial measures to improve their performance (Chang, 1999; Chow et al., 1998; Corrigan, 1996; Ittner et al., 1998a; Kaplan et al., 2001c). The results of this study would seem to bear that out as a number of non-financial measures, in particular customer measures such as customer satisfaction and customer complaints, are universally used by all banks regardless of strategic orientation or ownership structure. These results are consistent with the findings of Fliqstein, (1985), Hussain and Gunasekaran (2002), Hussain and Hoque (2002), and O’Neill et al. (1998) that during an economic recession, firms tend to mimic the “best practices” in performance measurement from other large, successful firms. Haverman (1993) also found this to be the case for firms entering new markets or encountering new market conditions.

This study’s finding on the use of performance measures for long-term decision-making is consistent with the findings of many researchers that non-financial measures help to improve long-term performance (Chang, 1999; Chow et al., 1998; Corrigan, 1996; Ittner et al., 1998a; Kaplan et al., 2001c; Lambert, 1998; Maiga &
Jacobs, 2003). It is also consistent with the BSC framework used for investigation in this study, which suggests that a performance measurement system has to consist of both financial and non-financial measures to improve long-term firm performance (Kaplan et al., 2001c).

5.6 Conclusion

The results of this study indicate that the financial crisis in 1997 had a major impact on the Thai banking sector. The uncertainty and economic turmoil stemming from the crisis forced the banks to focus their attention primarily on improving and measuring financial performance and, in the short-term at least, lessened their focus on non-financial measures. This focus on financial performance was reinforced by the Bank of Thailand’s tightening of reporting requirements and stringent recapitalisation requirements intended to deal with the NPL problem. These economic factors also created difficulties for the banks in long-term strategic planning, where, as the Balanced Scorecard suggests, non-financial measures are likely to provide the greatest contribution to improved firm performance. Moreover, the Bank of Thailand also increased its coercive influence over major bank decisions, such as interest rates, pricing, and even long-term strategic planning, which in turn, affected the bank’s performance measurement practices (DiMaggio et al., 1983, 1991a; Hussain et al., 2002a; Scott, 1995).

At the same time, the financial crisis forced the Thai government to open the long-protected domestic banking market to foreign entrants, which, in turn, increased competition in the market. The prospect of ever intensifying competition raised the
banks’ consciousness of the utility of and need for non-financial measures, such as customer satisfaction, customer complaints, customer waiting, customer retention and so on in order to survive in the new, more competitive environment, in effect mimicking the competitive strategy of foreign organisations.

All of these factors have played a role in shaping performance measurement in Thailand’s banking industry. Overall, the result has been a fundamental shift from a heavily protected banking cartel to more market-oriented competition. The customer has gained more choice than ever before and if the banks did not meet their expectations or satisfy them, the customer would seek service elsewhere. According to one Thai bank president, developing an efficient performance measurement system was the key element toward achieving the company’s goals (Yuthamanop, 2003). As he explained: “Banks are striving to offer services and access to the customer like never before. Borrowers were quick to shift to other banks if they perceived that service and pricing were better, adding to pressure on local banks” (Yuthamanop, 2003, p. 1).

Furthermore, the results in this study suggest that during a period of deregulation/economic recession, firms are likely to be influenced more by institutional factors (primarily coercive and mimetic pressures) than by contingency factors (e.g. competitive factors, etc.). The banking industry, in particular, has the special characteristic of operating under the close and direct supervision of the central bank/government authorities and may be particularly susceptible to coercive pressure. Thus, both institutional and contingency factors influence the choice of banks’
performance measurement systems and the relative importance of the factors may be
determined by the stability of the environment in which they operate.

The results of this study, however, are not without shortcomings. The data in this
study came from the private Thai-owned banks and foreign-owned banks but did not
include the state-owned banks. As a result, care must be taken in extrapolating these
results to the industry as a whole. Nevertheless, it would be wrong to assume that the
research in this study is not pertinent for the banking industry in Thailand as all the
banks in Thailand face the same economic environment.

Relevant constituents of the contingency perspective and institutional perspective as
shown in the literature were applied to understanding and explaining the phenomena
examined. Other factors, however, might also influence performance measurement
practices in the banking sector. Thus, this study indicates several issues directions for
further research. These include: the effect of internal factors (such as size and
technology) as the contingency perspective suggests that these too affect performance
measurement practices. As the results of study one showed, the Thai-owned
prospector and analyser banks are significantly larger than the Thai-owned defender
banks, which are significantly larger than the foreign-owned prospector and analyser
banks. These differences in size may affect the performance measurement system
used.

According to Carroll (1985), Haverman (1993) and Meyer (1990), medium-sized
firms face the most intense competition. While large firms enjoy the benefits of broad
generalisation and small firms can derive advantages from specialisation, medium-
sized firms tend to suffer the drawbacks and liabilities of both (Carroll, 1985; Haverman, 1993; Karimi, Gupta, & Somers, 1996; Meyer, 1990). Moreover, firms tend to identify their peers as similar-sized firms and are most likely to imitate their strategies, which, in turn, may influence their performance measurement system (Scott, 1992). As Hussain and Gunasekaran (2002) and Karimi et al., (1996) concluded in their studies, the size of a firm has an impact on the performance measurement system used.

Technology is also an important internal factor that influences the firm’s performance measurement system (Thompson, 1967; Weisenfeld-Schenk, 1994). The acquisition entry foreign banks allowed into Thailand’s domestic banking market can be classified as prospectors and analysers. According to Miles and Snow (1978) prospectors and analysers are more likely to pioneer new product and services than defenders. As the results in this study indicate, prospectors and analysers place great importance on offering a wide spectrum of services, such as telephone banking, internet banking, ATM deposits, etc. Several researchers have found that technology influences the use of non-financial measures in a firm (Hussain et al., 2002a; Hussain et al., 2002b; Perrow, 1967; Thompson, 1967). Hussain and Gunasekaran (2002), in particular, in their study of non-financial management accounting measures in Finnish financial institutions found that technology increases the need to improve non-financial performance measures in banks.

Another important internal variable that affects the firm structure and, in turn, affects the firm’s performance measurement practice is management control systems (Govindarajan & Fisher, 1990; Lawrence et al., 1967). This study collected data from
branch managers in metropolitan Bangkok, and it is possible that different results may have been obtained if the data had been collected from other cities. It is possible that managers from other cities, far from central management, may have less freedom to choose measurement practices than managers in Bangkok. As Hussain and Gunasekaran (2002) found in their study of Japanese banks, the level of freedom to choose the measurement practice affects the performance measurement system.

Finally, another concern is that the results in this study show that there are no significant differences in the use of non-financial measures between the typologies but a comparison of differences based on type of ownership does show significant differences in the use of non-financial measures between Thai-owned banks and foreign-owned banks. This indicates that further investigation needs to be carried out on whether there are differences within each typology based on ownership structure.

However, it appears that irrespective of ownership and strategic orientation all banks have identified the need for examination and measurement of customer satisfaction. Therefore, the next chapter will present a supplemental study, which examines how the firm’s performance measurement system impacts on the customer perspective as reflected in customer satisfaction.
Chapter 6
The Need for Non-financial Measures of Performance

6.1 Introduction

The previous chapter concluded that irrespective of strategic orientation, the banks investigated placed more priority on financial performance measurement as a result of the financial crisis. However, the banks recognised the long-term need to focus on non-financial performance measures, particularly those dealing with customer satisfaction. In light of this dichotomy, this study examines one outcome of the firms’ performance measurement practices - their impact on customer satisfaction.

The evolution from service quality to more of a customer orientation in the Thai banking industry typifies the challenges faced by banks in a highly competitive market (Leenabanchong, 2001; Montreevat et al., 2003). The Thai-owned banks that survived have made great strides in moving from a dependence on government protection and low competition to a more open and competitive market. As the results of study two also showed, banks are using more non-financial measures to face the new competitive environment.

Specifically, results from study two indicated that for long-term decision making, managers at defender banks focused more on financial measures than managers at prospector and analyser banks. The Balanced Scorecard (BSC) suggests that for a
firm to succeed in highly competitive markets, the firm must look at both non-financial and financial measures of performance (Kaplan et al., 2001a).

6.2 Study Rationale

Study one highlighted the importance of a company selecting a suitable strategy that simultaneously builds on its strengths and reduces its weaknesses. At the same time, the company must select performance measurement that helps it translate that strategy into action, which will improve its performance (Ittner et al., 1998b; Kaplan et al., 2001a).

Companies that select the wrong strategy or the wrong performance measurement to drive their strategy to meet the external expectations, may not survive, especially in an uncertain environment (Kaplan et al., 1996d). Therefore, the challenge for companies is to align their internal perception with the external perception, as this in itself may be a signal for managers in their choice of performance measures.

Hence, this study examines customer satisfaction as many researchers (Anderson, Fornell, & Lehmann, 1994; Anderson et al., 1997; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Ittner et al., 1998a; Kaplan et al., 2001c) argue that when a company improves its customer satisfaction, this may also lead to improved company performance.

According to the satisfaction-performance dynamic, satisfaction enhances customer loyalty and retention, leading to increased revenues and lower operating costs, which
result in increased profitability (Edvardsson, Johnson, Gustafsson, & Strandvik, 2000; Johnson, Herrmann, & Gustafsson, 2002; Zeithaml & Bitner, 2003). However, this study does not examine the logic of that relationship or progression. The main investigative focus of this study is on how well the banks are meeting customer requirements given their primary focus on financial measures for examining performance (Bitner, 2001; Edvardsson et al., 2000; Zeithaml et al., 2003).

In this study, customer satisfaction was defined as the aggregate satisfaction of customers’ overall evaluation of their individual customer experience (Edvardsson et al., 2000; Johnson, Anderson, & Fornell, 1991; Johnson et al., 1995).

There are several reasons why this study used customer satisfaction to investigate the outcome of the performance measurement system. First, we assumed that the customer measures are associated with the employee and product measures, the remaining two pillars of the BSC framework. As many researchers argue, customer satisfaction comes from receiving good service from employees and good products from the firm (Bitner, Booms, & Mohr, 1994; Bitner, Faranda, Hubbert, & Zeithaml, 1997; Brown et al., 1993; Callan & Kyndt, 2001; Dubrovski, 2001; Lovelock, 1983; Lovelock & Yip, 1996). For service companies, such as banks, customer contact is especially crucial in the formulation of the product which the customer receives, and service employees are so critical because the product being provided is their performance (Lovelock, 1983; Lovelock et al., 1996).

Second, many researchers have found customer satisfaction to be a key short-term measure that is a lead indicator of long-term performance especially in businesses
where repeat business is important (Kaplan, 1997, Mount, 1983, Schmit and Allscheid, 1995). A number of researchers have shown customer satisfaction to be of primary importance (Bitner et al., 1997, Kaplan and Norton, 1992, Lewis and Spyarakopoulos, 2001).

### 6.3 Research Proposition

As the previous studies indicated, three different strategic orientations were found among private banks in Thailand. According to Govindarajan and Shank (1992) and Young and Selto (1991), a firm’s strategy guides the decisions and actions of the firm and thereby influences the type of performance measurement system used by the firm. The firm’s performance measurement practices, in turn, influence the firm’s behaviour and internal performance, such as quality of services, resulting in the firm’s external outcomes and performance (Govindarajan et al., 1992; Young et al., 1991).

Although study two found that the differences in emphasis on non-financial measures were not great among the typologies, the results did show that prospectors tended to place the most emphasis on non-financial measures while defenders tended to place the least. As a result, differences in outcomes, such as customer satisfaction, could be expected. This leads to the following research proposition in this supplemental study.

**Research Proposition:** In view of the differences in performance measurement focus, there are likely to be differences in customer satisfaction between banks adhering to the different strategy typologies.
6.4 Research Methodology

6.4.1 Sample

This study examined customer perceptions of branch service provided by tellers and customer service representatives via a written questionnaire of customers during service use at branches of both Thai-owned banks and foreign-owned banks. The survey sample totalled 417 customers, comprised of 142 customers at prospector banks, 132 customers at defender banks and 143 customers at analyser banks, from a variety of the banks’ branches in metropolitan Bangkok.

Each survey respondent was asked to rate the service provided by tellers and/or customer service representatives on six performance measures of customer service and customer satisfaction. These included: responsiveness of service, speed of transaction, availability of service, professionalism, overall satisfaction with service, and future intention. In addition, several questions relating to customer demographics, types of products and service areas used, and length of customer tenure with their respective banks were used as control variables.

6.4.2 Method of Research

A random sample of customers participated in this study through an intercept method involving a face-to-face or personal survey at each branch (Bush & Hair, 1985). The sample in this study was collected in Bangkok, a city with a population of more than 10 million people. In view of the busy schedules of respondents and Bangkok’s chronic traffic problem, the intercept method is a feasible alternative to traditional
population survey methods and may provide better access to and response rates from a
harder-to-reach urban population in a time-efficient manner (Bush et al., 1985).

Customers completed a nineteen-question survey before they completed their
transactions that day. Customers were instructed to think about the last time they
visited a teller or customer representative at that branch and then make separate
ratings regarding the service of tellers and customer representatives.

**Research Instrument**

The research instrument used in this study was a close-ended, self-administered
questionnaire. The questionnaire consisted of four quality dimensions and two
dimensions labelled overall customer satisfaction and intention. The four quality
dimensions and the *overall customer satisfaction* dimension were adapted from Hayes
(1998) while the *intentions* dimension was based on a combination of two previously
used instruments described by Patterson (1997) and Armstrong (2000).

The instruments that were employed from Armstrong (2000), Hayes (1998) and
Patterson (1997) are highly relevant for this study for several reasons. First, the
instruments were designed for the disconfirmation model of banking customer
satisfaction at the retail or individual level. Second, the instruments were based on
literature which emphasises non-financial measures or the customer perspective,
which works in association with the financial perspective to improve the long-term
benefit of the company. The instruments also reflected the relationship between
strategy and performance measurement, which is, reflected in company performance.
The four quality dimensions consisted of: responsiveness of service, speed of transaction, availability of service, and professionalism. The two labelled dimensions included: overall satisfaction with service, and future intention.

Each question in the customer survey consisted of five choices. of which there were two negative choices - strongly disagree (1), or disagree (2); a neutral third choice of neither agree nor disagree (3); and two positive choices, - agree (4) or strongly agree (5). All the survey responses were simply choice selections (see more detail in Appendix 2).

**Translation of Survey Instrument**

The instrument used in this study is unlike those used in study one and study two. The instruments in study one and study two were originally prepared in English with Thai-language supplements. However, all of the participants in study one and two requested the English version only.

As the respondents in this study were the customers of the banks, some of the potential respondents may not have an adequate understanding of the written English language. Therefore it was necessary to have a Thai-language version of the questionnaire to supplement the English version. As Voss et al., (1996) states, in conducting research across national and cultural boundaries, the major concern is in establishing comparability of findings from different countries and cultures.
In this study, nineteen questions were used in the Thai-language version, which was translated from the English-language questionnaire. Due care in this matter was given to ensure equivalence in all aspects of wording, meaning and context, including vocabulary, idiomatic understanding, grammar and syntax, experiential meaning and uniformity of concepts (Sekaran, 1983).

To ensure that the utilised data instrument achieved cross-cultural measurement equivalence, which is critical to establishing overall data equivalence (Douglas & Craig, 1983), this study selected the back-translation method to transform the English version into the Thai version and the Thai version back to the English version. The back-translation technique was selected for this study for several reasons.

First, the technique has been applied in numerous studies involving cross-cultural research in the field of organisation and consumer behaviour (Hwang, Yan, & Scherer, 1996; Matsumoto, 1994).

Second, much empirical research has reported the successful use of the back-translation method in international research (e.g., (Brislin, 1980; Choudhry, 1986; Voss, Stem, Johnson, & Arce, 1996). Finally, by translating the already translated instrument back into its original language, back-translation addresses many of the shortcomings of direct translation. As Choudhry (1986, p. 18) notes: “The most highly regarded technique for developing pan-cultural measuring instruments is decentering. It includes a successive iteration process of translation and retranslation, each time by a different translator”.
Thus, in this study, the English version was translated into Thai using translators in Thailand who are native speakers of Thai and are government-licensed translators, and was then back-translated from Thai to English by translators in Australia who are native English speakers and licensed. As Sekaran (1983, p. 62) states, the issues of equivalence “can be ensured with good back-translations by persons who are not only facile with the different languages in question but are also familiar with the cultures involved, and with the usage of the concepts and their meanings in the relevant cultures”.

**Data Analysis**

Prior to testing the research questions, the survey measures used were examined for the reliability and validity (Collis et al., 2003). Reliability reflects the stability and consistency of an instrument in measuring a concept (Page & Meyer, 2000; Sekaran, 1992, 2003). In view of the characteristics of the instrument used in this study, the inter-item reliability consistency (alpha) was used to measure its reliability. Construct validity is determined by how well certain constructs explain the variance of responses to a set of survey items (Page & Meyer, 2000; Sekaran, 1992, 2003).

According to inter-item reliability, a high correlation can be expected between items in an instrument measuring the same thing (Page et al., 2000; Ticehurst & Veal, 1999). As Sekaran (2003, p. 205) states, with regards to the inter-item reliability, the items should “hang together as a set and be capable of independently measuring the same concept so that the respondents attach the same overall meaning to each of the items”. For example, the first two items of the research questionnaire in this study
were intended to measure the level of responsiveness of service; therefore, those two items should be highly correlated with each other (Collis et al., 2003; Page et al., 2000; Ticehurst et al., 1999) (see appendix 3 for questionnaires). The higher the Cronbach’s coefficient alpha, the better the measuring instrument (Page et al., 2000; Sekaran, 1992, 2003; Ticehurst et al., 1999).

The Statistics Package for Social Sciences programme (SPSS for Windows version 11.5) was used for data analysis with parametric statistical procedures, with a p-value of less than 0.05 considered to be statistically significant. Demographic responses were compared between prospector banks, defender banks and analyser banks by using chi-square analysis (Coakes et al., 2001; Green et al., 2000).

For determining difference/similarity between typologies - prospectors, analysers, and defenders - on customer measures across the entire sample, one-way between groups ANOVA with post-hoc comparisons (Coakes et al., 2001; Green et al., 2000) was used. Finally, for determining differences between typologies across the foreign-owned banks sub-sample, the independent groups t-test (Coakes et al., 2001; Green et al., 2000) was used because only two strategy typologies - prospectors and analysers – appear in this sub-sample.
6.5 Results

6.5.1 Demographics

Customer respondents from almost all banks were predominately male (62% at prospector banks, 59% at analyser banks and 70% at defender banks) and most were between 31 to 40 years of age. The majority of respondents reported a bachelor’s degree as their highest level of educational attainment. Nearly half of the customers reported that they had used their bank’s services for a period of one to four years. On average, each customer utilised two or three of their bank’s service areas (See more details in Table 6.1).
<table>
<thead>
<tr>
<th>Characteristics of Interviewees</th>
<th>Prospector banks (n=142)</th>
<th>Analyser banks (n=143)</th>
<th>Defender banks (n=143)</th>
<th>$\chi^2$ (2-tailed)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>62</td>
<td>59</td>
<td>70</td>
<td>3.21</td>
<td>0.20</td>
</tr>
<tr>
<td>• Female</td>
<td>37</td>
<td>41</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Under 30</td>
<td>30</td>
<td>22</td>
<td>30</td>
<td>12.76</td>
<td>0.04</td>
</tr>
<tr>
<td>• 31-40</td>
<td>39</td>
<td>41</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 41-50</td>
<td>15</td>
<td>25</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Over 50</td>
<td>16</td>
<td>12</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Attainment</td>
<td></td>
<td></td>
<td></td>
<td>16.46</td>
<td>0.00</td>
</tr>
<tr>
<td>• Secondary</td>
<td>25</td>
<td>27</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Undergraduate</td>
<td>49</td>
<td>64</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Postgraduate</td>
<td>26</td>
<td>9</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of years using the services of their bank</td>
<td></td>
<td></td>
<td></td>
<td>26.87</td>
<td>0.00</td>
</tr>
<tr>
<td>• Less than a year</td>
<td>22</td>
<td>23</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1-4 years</td>
<td>47</td>
<td>48</td>
<td>51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 5-10 years</td>
<td>20</td>
<td>20</td>
<td>37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Over 10 years</td>
<td>11</td>
<td>8</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service areas</td>
<td></td>
<td></td>
<td></td>
<td>48.74</td>
<td>0.00</td>
</tr>
<tr>
<td>• Deposit account</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Loan</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Credit or charge card</td>
<td>11</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Use 2 or 3 areas</td>
<td>28</td>
<td>22</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Use 4 or 5 areas</td>
<td>15</td>
<td>20</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Use more than 5 areas</td>
<td>8</td>
<td>13</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Other</td>
<td>22</td>
<td>19</td>
<td>36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square tests for relatedness (Coakes et al., 2001; Green et al., 2000) were used to check for independence across the three typology samples. The groups were found to be significantly different in terms of respondents’ age, education, number of years they have used the service of their banks and the service areas they have used in their banks. The respondent samples were found to be similar in term of respondents’
gender. Therefore, differences in customer perception may be a result of these differences in demographic factors. Hence, these variables were used as control variables in the analysis that follows.

**Reliability**

The alpha reliability for each of the six measures is presented in table 6.2. As Hair et al., (1995, p. 641) states the value of 0.70 is a “commonly used threshold for acceptable reliability”, and thus, is considered acceptable for research (Page et al., 2000; Sekaran, 2003). As table 6.2 shows, all alpha scores were in the acceptable range from 0.73 to 0.97, well above the 0.70 cut-off.

**Table 6.2 Reliability of Instruments**

<table>
<thead>
<tr>
<th>Customer measures</th>
<th>Number of items</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsiveness of service</td>
<td>2</td>
<td>0.76</td>
</tr>
<tr>
<td>Speed of transaction</td>
<td>2</td>
<td>0.97</td>
</tr>
<tr>
<td>Availability of service</td>
<td>2</td>
<td>0.89</td>
</tr>
<tr>
<td>Professionalism</td>
<td>4</td>
<td>0.74</td>
</tr>
<tr>
<td>Overall satisfaction with service</td>
<td>6</td>
<td>0.89</td>
</tr>
<tr>
<td>Intention</td>
<td>3</td>
<td>0.73</td>
</tr>
</tbody>
</table>

**Validity Analysis**

Table 6.3 shows the correlations between the instruments for measuring the constructs and customer demographics. The results indicate that all the instruments for
measuring the constructs in this study were significantly related to at least some of the demographic characteristics.

Responsiveness of service was negatively correlated with type of ownership ($r = 0.292, p = 0.000$), age of respondents ($r = 0.292, p = 0.000$), level of education of respondents ($r = 0.241, p = 0.000$), number of years respondents used the service of their bank ($r = 0.126, p = 0.005$), and use of the bank’s service areas ($r = 0.138, p = 0.002$).

Speed of transaction of the banks was positively correlated with type of ownership ($r = 0.88, p = 0.036$), type of strategy ($r = 0.268, p = 0.000$), gender of respondents ($r = 0.207, p = 0.000$), level of education of respondents ($r = 0.082, p = 0.047$).

Availability of service was positively correlated only with gender of respondents ($r = 0.153, p = 0.001$) but negatively correlated to type of ownership ($r = 0.149, p = 0.001$).

Professionalism was negatively correlated to age of respondents ($r = 0.247, p = 0.000$), use of the bank’s service areas with number of years respondents ($r = 0.671, p = 0.000$), used the service of their bank ($r = 0.422, p = 0.000$), but positively correlated with type of ownership ($r = 0.153, p = 0.001$).

Overall satisfaction with service was positively correlated with type of ownership ($r = 0.129, p = 0.004$), but negatively correlated with age of respondents ($r = 0.283, p = 0.000$), number of years respondents used the service of their bank ($r = 0.628, p = 0.000$), and use of the bank’s service areas ($r = 0.343, p = 0.004$).
Intention was positively correlated with type of ownership ($r = 0.146$, $p = 0.001$), gender of respondents ($r = 0.165$, $p = 0.000$), and negatively related to age of respondents ($r = 0.207$, $p = 0.000$), number of years respondents used the service of their bank ($r = 0.153$, $p = 0.000$), and use of the bank’s service areas ($r = 0.326$, $p = 0.000$).

In terms of correlation between the customer measures, the results indicate that most of the instruments for measuring the constructs in this study were significantly related to each other (see table 6.3), with the exception of the responsiveness of service measure, which was not significantly correlated with any of the other constructs ($p >0.05$).

Speed of transaction was positively correlated with the availability of service ($r = 0.149$, $p = 0.001$) and intention constructs ($r = 0.113$, $p = 0.010$). Availability of service was positively correlated with professionalism ($r = 0.249$, $p = 0.000$), overall satisfaction with service ($r = 0.149$, $p = 0.001$) and intention ($r = 0.399$, $p = 0.000$). Professionalism was highly positively correlated with Overall satisfaction with service ($r = 0.873$, $p = 0.000$) and Intention ($r = 0.851$, $p = 0.000$). Finally, Overall satisfaction with service was highly correlated with the Intention construct ($r = 0.763$, $p = 0.000$). However, there was no strong evidence of multi-collinearity (i.e, $r > 0.88$) in the correlations between customer measures and demographics and between the various measures (Bartlett, 1954).
Table 6.3 Correlations Between Instruments for Measuring the Constructs in this Study

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Age</th>
<th>Educ¹</th>
<th>Year²</th>
<th>Ser³</th>
<th>Res⁴</th>
<th>Speed⁵</th>
<th>Avail⁶</th>
<th>Pro⁷</th>
<th>Sat⁸</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
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<tr>
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<td>.165**</td>
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</tbody>
</table>

Educ¹ = Education; Year² = Number of years using the services of their banks; Ser³ = Service area; Res⁴ = Responsiveness of service; Speed⁵ = Speed of transaction; Avail⁶ = Availability of service; Pro⁷ = Professionalism; Sat⁸ = Overall satisfaction with service; Intent⁹ = Intention; **. Correlation is significant at the 0.01 level (1-tailed); *. Correlation is significant at the 0.05 level (1-tailed)
6.5.2 Differences Between Typologies Across Entire Sample

The customer respondents from each of the three typology banks were asked to rate perceived *responsiveness of service, speed of transaction* of the banks, *availability of service* at their respective banks, the *professionalism* of the banks, *overall satisfaction with service* of the banks, and customer’s *intention* toward their banks. Overall, the results, as shown in Table 6.4, indicate a low level of customer satisfaction across all strategy typologies on most customer measures. Customers were more positive than negative (*M* > 3.0) on only the Responsiveness of service measure.

**Table 6.4 Customer Ratings of Customer Satisfaction Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Prospector Bank Customers (n = 142)</th>
<th>Analyser Bank Customers (n = 143)</th>
<th>Defender Bank Customers (n = 132)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>3.36</td>
<td>.70</td>
<td>3.26</td>
</tr>
<tr>
<td>Speed</td>
<td>2.69</td>
<td>.53</td>
<td>2.95</td>
</tr>
<tr>
<td>Availability</td>
<td>2.66</td>
<td>.63</td>
<td>2.68</td>
</tr>
<tr>
<td>Professionalism</td>
<td>2.52</td>
<td>.69</td>
<td>2.58</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>2.45</td>
<td>.67</td>
<td>2.60</td>
</tr>
<tr>
<td>Intention</td>
<td>2.51</td>
<td>.67</td>
<td>2.58</td>
</tr>
</tbody>
</table>

*M* = Mean rating  
*SD* = Standard deviation

The results from ANOVA indicate that there were no significant differences between the three groups (*p* > 0.05) in most areas except perceived *responsiveness of service* and *speed of transaction* where the differences between the three groups were significant (*p* < 0.05). The one-way between groups ANOVA with post-hoc comparisons for each measure were: Responsiveness of service (*F* (2, 414) = 4.459, *p*
= 0.012), Speed of transaction ($F (2, 414) = 18.262, p = 0.000), Availability of service ($F (2, 414) = 1.498, p = 0.225), Professionalism ($F (2, 414) = 1.329, p = 0.266), Overall satisfaction with service ($F (2, 414) = 2.685, p = 0.069) and Intention ($F (2, 414) = 1.070, p = 0.344).

The Tukey HSD test was used to further determine the significance of differences in perceived responsiveness of service between prospector banks and analyser banks, between prospector banks and defender banks, and between analyser banks and defenders. The results showed that only the difference between defenders and analysers was significant ($p < 0.05$). In contrast there was no significant difference between prospectors and analysers or between prospectors and defenders ($p > 0.05$) (see Table 6.5).

In terms of differences in the speed of transaction, the results showed that the differences between prospector banks and analyser banks and between prospector banks and defender banks were significant ($p < 0.05$). In contrast there was no significant difference between analyser banks and defender banks ($p > 0.05$) (see Table 6.5).
Table 6.5 Differences Between Typologies Across The Entire Sample (Tukey HSD Test)

<table>
<thead>
<tr>
<th>Dependent Variable type</th>
<th>(I) Strategy type</th>
<th>(J) Strategy type</th>
<th>Mean difference (I-J)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsiveness</strong></td>
<td>prospector</td>
<td>analyser</td>
<td>0.100</td>
<td>0.393</td>
</tr>
<tr>
<td></td>
<td>defender</td>
<td></td>
<td>-0.133</td>
<td>0.207</td>
</tr>
<tr>
<td></td>
<td><strong>defender</strong></td>
<td>analyser*</td>
<td><strong>0.233</strong></td>
<td><strong>0.009</strong></td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>prospector</td>
<td>analyser*</td>
<td><strong>-0.264</strong></td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td></td>
<td>defender *</td>
<td></td>
<td><strong>-0.325</strong></td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td></td>
<td>analyser</td>
<td>defender</td>
<td>-0.060</td>
<td>0.544</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td>prospector</td>
<td>analyser</td>
<td>-0.016</td>
<td>0.974</td>
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<tr>
<td></td>
<td>defender</td>
<td></td>
<td>-0.122</td>
<td>0.186</td>
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<tr>
<td></td>
<td>analyser</td>
<td>defender</td>
<td>-0.106</td>
<td>0.346</td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td>prospector</td>
<td>analyser</td>
<td>-0.052</td>
<td>0.778</td>
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<tr>
<td></td>
<td>defender</td>
<td></td>
<td>0.076</td>
<td>0.603</td>
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<tr>
<td></td>
<td>analyser</td>
<td>defender</td>
<td>0.128</td>
<td>0.236</td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>prospector</td>
<td>analyser</td>
<td>-0.155</td>
<td>0.134</td>
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<tr>
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<td>defender</td>
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<td>0.981</td>
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<td></td>
<td>analyser</td>
<td>defender</td>
<td>0.170</td>
<td>0.097</td>
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<td><strong>Intention</strong></td>
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<td>analyser</td>
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<tr>
<td></td>
<td>defender</td>
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<td>0.057</td>
<td>0.763</td>
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<td></td>
<td>analyser</td>
<td>defender</td>
<td>0.119</td>
<td>0.311</td>
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</tbody>
</table>

*The mean difference is significant at the 0.05 level

Results from sub-samples of Thai-owned banks and foreign-owned banks are also presented, as the previous study showed that there were differences in focus on non-financial measures between Thai-owned banks and foreign-owned banks.
6.5.3 Differences Between Typologies Across the Thai-owned Banks Sub-sample

As indicated in the results of study one, among Thai-owned banks, there were three types of strategy typology: prospector, analyser and defender. The results from ANOVA show that among the Thai-owned banks there were no differences in terms of perceived responsiveness of service, availability of service, professionalism, overall satisfaction with service, and customer intentions between typologies (p > 0.05). Only in one measure, speed of transaction, were significant differences found between prospector banks, analyser banks, and defender banks across the Thai-owned banks sample with $F(2, 213) = 7.630$, $p = 0.01$.

The Tukey HSD test was used to further determine the significance of differences in speed of transaction between prospectors and analysers, prospectors and defenders, and between analysers and defenders within the Thai-owned banks sub-sample. The results show that only the differences between prospectors and defenders are significant (p < 0.05). In contrast there is no significant difference between prospectors and analysers and between analysers and defenders (p > 0.05) (see Table 6.6).

The results in the previous study indicated that respondents from prospector banks focused more on non-financial measures than respondents from analyser banks and defender banks. Therefore, it could be expected that in this study, there would be

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6 The one-way between groups ANOVA with post-hoc comparisons the Responsiveness of service ($F(2, 213) = 2.038$, $p = 0.133$), Speed of transaction ($F(2, 213) = 7.630$, $p = 0.001$), Availability of service ($F(2, 213) = 1.949$, $p = 0.145$), Professionalism ($F(2, 213) = 0.303$, $p = 0.739$), Overall satisfaction with service ($F(2, 213) = 0.238$, $p = 0.789$), and Intention ($F(2, 213) = 1.147$, $p = 0.320$).
differences in customer satisfaction between the three banks groups, particularly between prospector banks, which placed the greatest emphasis on non-financial measures, and defender banks, which placed the least. However, the results in this study show that there were virtually no differences between prospector banks and defender banks, except on the measure of Speed of transaction. These results are consistent with the results obtained across the entire sample.

Table 6.6 Differences Between Typologies Across the Thai-owned Banks Sub-sample (Tukey HSD Test)

<table>
<thead>
<tr>
<th>Dependent Variable type</th>
<th>(I) Strategy type</th>
<th>(J) Strategy type</th>
<th>Mean difference (I-J)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsiveness</td>
<td>prospector</td>
<td>analyser</td>
<td>-0.177</td>
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<td>0.058</td>
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<td>defender</td>
<td>0.235</td>
<td>0.110</td>
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<td>prospector</td>
<td>analyser</td>
<td>-0.164</td>
<td>0.240</td>
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<td>defender *</td>
<td>-0.315</td>
<td>0.001</td>
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<td>analyser</td>
<td>defender</td>
<td>-0.152</td>
<td>0.146</td>
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<td>prospector</td>
<td>analyser</td>
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<td>0.132</td>
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<td>analyser</td>
<td>defender</td>
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<td>0.305</td>
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<td>prospector</td>
<td>analyser</td>
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<td>defender</td>
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<td>analyser</td>
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<td>0.919</td>
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<td>defender</td>
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<td>0.771</td>
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<td>analyser</td>
<td>0.171</td>
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<td></td>
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<td>defender</td>
<td>0.001</td>
<td>1.000</td>
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<tr>
<td></td>
<td>analyser</td>
<td>defender</td>
<td>-0.169</td>
<td>0.309</td>
</tr>
</tbody>
</table>

*The mean difference is significant at the 0.05 level
6.5.4 Differences Between Typologies Across the Foreign-owned Banks Sub-sample

Among foreign-owned banks there were two types of strategy typology: prospector and analyser. The results from the t-test in Table 6.7 show that there were significant differences in the areas of responsiveness of service, speed of transaction and overall satisfaction (p <0.05) between prospector banks and analyser banks. In contrast, there was no difference between prospector banks and analyser banks in availability of service, professionalism and intentions (p >0.05).

Table 6.7 Differences Between Typologies Across the Foreign-owned Banks Sub-sample

<table>
<thead>
<tr>
<th>Measures</th>
<th>Prospector Banks (n=40)</th>
<th>Analyser Banks (n=44)</th>
<th>t-test df=283, n=285</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>t   p</td>
</tr>
<tr>
<td>Responsiveness of service</td>
<td>3.28 0.64</td>
<td>3.05 0.48</td>
<td>2.946 0.004</td>
</tr>
<tr>
<td>Speed of transaction</td>
<td>2.69 0.53</td>
<td>2.99 0.45</td>
<td>-4.455 0.000</td>
</tr>
<tr>
<td>Availability of service</td>
<td>2.66 0.62</td>
<td>2.57 0.67</td>
<td>1.001 0.318</td>
</tr>
<tr>
<td>Professionalism</td>
<td>2.59 0.70</td>
<td>2.66 0.56</td>
<td>-0.764 0.447</td>
</tr>
<tr>
<td>Overall satisfaction with service</td>
<td>2.49 0.66</td>
<td>2.69 0.67</td>
<td>-2.170 0.031</td>
</tr>
<tr>
<td>Intention</td>
<td>2.54 0.66</td>
<td>2.70 0.67</td>
<td>-1.183 0.076</td>
</tr>
</tbody>
</table>

The results of the previous study indicated that respondents from both prospector banks and analyser banks were more focused on non-financial measures than defender banks, with prospector banks placing slightly more emphasis on non-financial measures than analyser banks, although the differences were not significant. Therefore, few differences could be expected in customer satisfaction between
prospector banks and analyser banks. In fact, differences were found between foreign-owned prospector banks and foreign-owned analyser banks in three of the six customer satisfaction measures. On two of those measures - Speed of transaction and Overall satisfaction with service – analyser banks ranked higher than prospector banks, while on one measure - Responsiveness of service - prospector banks achieved higher levels of customer satisfaction than analyser banks. However, these differences were found within the context of generally low levels of customer satisfaction at both prospector banks and analyser banks.

Of note is that while no significant differences were found between prospector banks and analyser banks across the entire sample or within the Thai-owned banks sub-sample, greater differences between prospector banks and analyser banks were found within the foreign-owned banks sub-sample. One possible explanation for this may be found in normative isomorphism (DiMaggio and Powell, 1981). Within the foreign-owned banks sub-sample, the prospector banks are owned by European banks while the analyser banks are owned by Asian banks. According to DiMaggio and Powell (1991) and Oliver (1997) differences in culture may influence interpretation and application of strategy. However, further investigation is required to determine whether this is, in fact, the case.

6.6 Discussion

The purpose of this study was to examine the impact of a company’s strategic direction and performance measurement practices on customer satisfaction. However, expected differences between banks adhering to the various strategic typologies
regardless of ownership were generally not found. Across the entire sample, the
results from four of the measures – availability of service, professionalism, overall
satisfaction with service and future intention – indicated no significant differences
among the strategic typologies and thus do not support the research proposition.

Results from two measures – responsiveness of service and speed of transaction - do
support the research proposition. But, in responsiveness of service, a difference can
be found only between defender banks and analyser banks; while in speed of
transaction differences were found between prospector banks and defender banks and
between prospector banks and analyser banks but not between defender banks and
analyser banks. Regardless of the differences, the results indicate that on most
measures across all typologies, customers were not very satisfied with the service of
their banks with average ratings of below 3/5 for most measures.

Perhaps the simplest explanation for the overall lack of differences in customer
satisfaction between the typologies is that the overriding short-term focus on financial
measures reported by respondents from all three bank groups in study two outweighed
the small differences in the relative importance each placed on non-financial
measures. The differences among the typologies in focus on non-financial measures
found in study two was more pronounced with regards to long-term decision making.
Thus, greater differences in customer satisfaction could be expected to materialize
over the longer term.

Timing may help to explain the lack of differences between the strategic typologies on
most measures in another way as well. Since the crisis in 1997, the Thai banking
sector has been in a state of perpetual turmoil, which may make it harder in the short-term for banks to distinguish and differentiate themselves. As the dust settles, just as we would expect to see some divergence in performance, we would also expect to see greater divergence in customer satisfaction.

Another possible explanation for the similarity in customer satisfaction across typologies on most measures may lie in the interaction between price and customer satisfaction, which was not explored in this study. As many researchers, including Elliott, (1996) and Reeves and Bednar (1996), have found, price is an important factor for bank customers. During the economic recession, customers were significantly impacted by high interest rates on loans and low interest rates on deposits (Casserley et al., 1999; Hewison, 2000; Mullineux, Murinde, & Pinijkulviwat, 2003; Phongpaichit et al., 2000). However, as explained in the discussion of study two, banks in Thailand during the study period had very limited control over their own pricing because of regulatory pressures and requirements imposed by the Bank of Thailand.

This view is supported by McDaniel and Kolari (1987) who stress that differing pricing strategies are significant differentiating characteristics of the three strategy types - prospectors, defenders, and analysers. In the absence of that key differentiator, similar levels of customer satisfaction are less surprising. However, further research is required to determine the importance of pricing and its relationship to customer satisfaction and how this may impact upon the uptake of customer satisfaction as a performance measure.
However, some differences were found between the strategy typologies on two of the customer satisfaction measures – *perceived responsiveness of service* and *speed of transaction*. These differences are consistent with the findings of McDaniel and Kolari (1987) on the differing influence of marketing within each typology and Miles and Snow’s (1978) own characterisation of differences in market segmentation and product/service design between the typologies. As Davidow and Uttal (1989) point out, companies have to develop their service strategy toward choosing an optimal mix and level of service for different customer sets. The demographic comparisons in this study show that there are significant differences in age, education level, and number of years using the service of their bank among respondents of the three typologies. Reeves and Bednar (1996) found that differences in age lead to differences in service preferences (e.g. young people are likely to prefer lower fees and more usage of automated transactions, while older customer may not respond well to automate service). In this study, customer respondents from prospectors and analyser banks were, in general, younger than customers of defender banks (under 40 years old).

Moreover, the correlation analysis showed a high positive correlation between age and the number of years that a customer had used the service of his or her bank. Respondents from defender banks generally had used their bank’s service longer than respondents from analyser banks or prospector banks. Thus, the respondents from defender banks would likely be more comfortable with human rather than electronic service. In that light, it is perhaps not surprising that the study found that respondents from defender banks were more satisfied with the teller’s speed of transaction than respondents from prospector and analyser banks. This finding is consistent with Elliott et al., (1996) who showed that the speed of transaction is important for
customer satisfaction among older customers while younger customers tend to rank electronic transactions and price more important than human contact (Reeves & Bednar, 1996).

Similarly, respondents from defender banks were more satisfied with the responsiveness of service than respondents from analyser banks. This finding is consistent with Elliott et al., (1996) and Reeves and Bednar (1996) that responsiveness in human transactions is important measure for customer satisfaction but varies by customer group. The findings on both the speed of transaction measure and the responsiveness of service measure supported by McDaniel and Kolari (1987) who find that the level of customer service provided by defenders is higher than that of prospectors.

Given the acknowledgement by managers from all three bank groups that financial measures rather than non-financial measures were driving their decision making during the study period, the overall low levels of customer satisfaction across all strategy typologies on most measures is perhaps not surprising. While managers of all three bank groups also indicated that they were focused on non-financial measures for the long-term, during the study period that focus had apparently not yet translated into results, at least in terms of the customer perspective.

6.7 Limitations and Further Research

There are several limitations that accrue in this study. First, this study examines only the aspect of customer interaction with bank service personnel and does not look at
other aspects of the customer experience, such as phone transaction banking, automatic teller machines, bank statements, etc, (Hayes, 1998). Second, the sample selection process for this study involved customer perceptions of branch service provided by tellers and customer service representatives and did not include interaction with the banks’ other service representatives (e.g., lending officers, credit card service representatives, etc.). Third, the responses in this study were collected only from metropolitan Bangkok, and it is possible that different results may have been obtained if data had been collected from other cities.

Moreover, as mentioned above, the research on performance measurement and the Balanced Scorecard adopted in this thesis was mostly performed in developed countries. It may be necessary to investigate the link between other perspectives (e.g. employee perspective), particularly within the developing country context, as this might be the way to gain a deeper understanding of the link to performance outcome by identifying the links that strengthen or weaken the positive effect of service-oriented business strategy on company performance.

6.8 Conclusion

In order to survive and improve its performance and measurement systems, the Thai banking industry has had to take on the performance measures systems in line with other competitors as Thailand opens the market to new entrants. As the banking industry is heavily regulated by the Thai government, the banks in Thailand have to adapt to the changes in legislation and regulation while facing higher competition than before.
Overall, customers of all three typologies were not very satisfied with the services of their banks, indicating that in the long-run the banks cannot focus only on financial measures. They will have to increasingly focus on non-financial measures to gain their customers’ satisfaction and improve their performance. Thai banks have had to change their strategies and find the right performance measures that suit their strengths and ensure their survival in this new environment. The implications and conclusion of this dissertation are discussed in the following chapter.
Chapter 7
Implications and Conclusions

7.1 Introduction

The objective of this dissertation was to examine the performance measurement system in a developing country's banking industry undergoing major systemic change and examine what factors influence the banks’ performance measurement system. The results that emerged from this dissertation indicate that, in the immediate aftermath of industry deregulation and turmoil, institutional factors seem to exert a greater influence on a firm’s performance measurement practices than strategic direction or other contingency factors. However, in terms of long-term decision-making, contingency factors still play a key role in influencing the performance measurement system of the firm.

Although this dissertation did not explore changes in institutional factors over time and their influence on performance measurement systems in Thai banks, it can conclude that institutional factors were highly influential determinants of performance measurement systems in the study period marked by significant environmental change and continued uncertainty. The overriding short-term influence of institutional factors can even be seen in external outcomes where expected differences in customer satisfaction based on differences in self-identified firm strategy largely failed to materialise.
7.2 Summary of Findings

Through a series of qualitative and quantitative studies in the Thai banking industry post the 1997 Asian financial crisis, this dissertation shows that institutional forces play a pivotal role in the choice of performance measurement systems, irrespective of strategic orientation and/or firm ownership.

Specifically, three studies are presented to support this argument. The first study uses the Miles and Snow (1978) typology to identify the strategic orientation of the Thai banks in order to make some predictions about the type and number of performance measures utilised by these banks. Results from this study show that bank managers identified their banks strategy as prospector, defender or analysers irrespective of firm ownership. This outcome drives the focus of study two.

Study two is a two-part approach examining the forces which have influenced performance measurement in the Thai-owned banks via both in-depth interviews conducted with 24 branch managers and the administration of a survey to 60 branch managers. Results from both studies suggest that coercive and mimetic forces play a pivotal role in the choice of performance measures. In particular, the study demonstrates that coercive forces at play within the industry put pressure on the banks to focus on financial measures, despite the increased awareness that to remain competitive both types of performance measures are needed.

The final study examines whether the focus on financial indicators has impacted upon the non-financial measure of customer satisfaction for the banks, particularly as the
Balanced Scorecard approach suggests utilising multi-dimensional performance measures to achieve the best performance outcome for the firm. Results from this study suggest that most customers are not satisfied with firm performance and conclude that there is a need, irrespective of social network forces to focus on both financial and non-financial performance indicators.

These outcomes have both theoretical and practical implications. From a theoretical point of view, this thesis posits that coercive, mimetic and normative forces need to be included in frameworks such as the Balanced Scorecard, if the true picture of what factors influence performance management and measurement are to be understood. From a practical perspective, the thesis provides evidence to managers of the need to examine performance measurement from a variety of perspectives in order to meet the needs of all stakeholders.

7.3 Research implications

Theory Implications

One important theoretical implication of this dissertation is that, in the short-term at least, institutional factors seem to account for variation, or lack thereof, in performance measurement systems beyond that explained by the use of contingency-based research. This advances the understanding of the influence of contingency factors on performance measurement systems in a rapidly changing and highly competitive environment by suggesting that firms may not adapt to changes in contingency factors as quickly or continuously as thought (Gupta et al., 1994; Heverman, 1993; Styhre, Styhre, 2001).
For example, many researchers suggest that when the firm faces a highly competitive environment, the firm’s performance measurement system needs to emphasise non-financial measures in combination with financial measures (Aragon-Correa et al., 2003; Armstrong, 2000; Banker et al., 1998; Barker, 1995; Buckmaster, 2000; Chandler, 1962b; Kaplan et al., 1996c). Although this dissertation does not dispute those findings, it does suggest that institutional factors may, in the immediate term at least, outweigh the influence of contingency factors in influencing performance measurement. This would suggest that in examining strategy and performance measurement during relatively short periods marked by great change and uncertainty, institutional theory may be more relevant and useful than previously thought or a guide to choice of performance measurement.

Over the long-term, however the findings suggest that contingency factors still play a key role in influencing the performance measurement system of the firm, at least in terms of the stated intentions and planned actions of managers. Findings from the supplemental study indicate that customers are generally not satisfied with the service of their banks. This may indicate that in a period of the deregulation/economic recession banks might be initially more focused on surviving. But, as the environment settles or becomes more stable, banks will need to focus more on maintaining or gaining market share and customer retention, which means that banks will have to pay more attention to and use more non-financial measures in their performance measurement systems. This is consistent with traditional contingency theory research, which found that the firm will adapt its strategy to fit the environment it faces, which, in turn, influences the performance measurement system.
(Govindarajan et al., 1992; Thompson et al., 2001; Thompson, 1967; Young et al., 1991).

According to the BSC framework, in order to survive in this era of high competition firms cannot ignore the importance of non-financial measures along with financial measures for improving firm performance in the long-term (Kaplan & Norton, 1996). The findings of this thesis indicate that even as institutional factors may force the banks to concentrate more on financial measures rather than non-financial measures in the short-term, they cannot ignore the importance of non-financial measures in the long-term, as evidenced by the results of the supplemental study which found that the banks paid a price in terms of low customer satisfaction while they concentrated primarily on financial measures.

Other research has suggested that the influence of institutional factors relative to contingency factors may diminish in the face of a changing environment over time (Gupta et al., 1994; Homburg et al., 1999). As Homburg et al. (1999, p. 12) state “there are limits to the ability of social system to adapt continuously to changes in the environment”. However, further research needs to be undertaken to determine the relative influence of contingency and institutional factors in the long-term and over time. According to Scott (1987) the use of contingency theory or institutional theory alone provides an incomplete understanding the role of “coordination and control” practices and how these interact to influence the performance measurement system. To fully understand and appreciate the influence of these coordination and control practices on performance measurement requires the application of both theories (Hussain et al., 2002b; Scott, 1987).
Moreover, this thesis indicates that the level of customer satisfaction in Thai banks is not high due to the institutional pressures forcing banks to focus on financial rather than non-financial measures. However, other contingency factors such as technology, market segmentation, product/service design and the like, may also impact on the level of customer satisfaction. Again, a full understanding of the dynamics at work in customer satisfaction would seem to require further investigation of both institutional and contingency factors.

**Practical Implications**

This dissertation extends the contingency theory and institutional theory by tying strategy to the use of performance measurement systems in Thai banking industry. In doing so, it makes practical contributions to the area of performance management, especially the BSC framework.

Regardless of the environments in which they operate, firms continue to struggle with the selection and application of appropriate performance measurement systems. According to Hronec (1993), managers may be overwhelmed with performance information, making it difficult to determine which performance measures are truly critical to success and, as a result, leading them to focus only on financial measures almost by default. This dissertation can provide some direction to these managers in three ways.
First, the general survey results provide an indication of the relative use and importance in Thailand’s banking industry of a wide variety of financial and non-financial measures across the four BSC perspectives. These results may provide insights and direction to managers seeking to apply the BSC framework, particularly in an uncertain environment. Second, this dissertation provides insight into how managers view the usefulness of performance measurement systems in guiding their long-term and short-term strategic decision-making. Third, the conclusions of this dissertation indicate the need for managers to broaden their view and understanding of the factors that may be influencing their performance measurement practices to include institutional factors. Fourth, even though coercive pressure and other institutional factors may, in effect, dictate firm performance measurement focus in the short-term, other competitive factors, particularly in a deregulated environment, will propel managers toward a performance measurement system that improves their competitiveness over the long-term.

7.4 Limitations and Directions for Future Research

Although the limitations of each study are discussed in the respective chapters presenting each study, there are limitations to this dissertation as a whole. At the time the studies were undertaken, the banking environment in Thailand had not completely stabilised and continued to feel the effects and fallout from the financial crisis. Thus, this dissertation was unable to examine the effectiveness of the banks’ strategy choices and performance management systems under different economic conditions. Future research to examine the relationship between strategy choice and performance management in Thailand under stable or different economic conditions or in other
markets experiencing different economic conditions is needed to confirm the applicability of the findings of this dissertation to those conditions.

Moreover, as the nature of the banking industry is different from other industries in that bank operations are under the close supervision of central banks/governments (Hussain et al., 2002b), it may be beneficial to explore how firms adopt strategic orientation based on external environment change and how this impacts on performance measurement systems in other industries or other countries as per the model presented in Figure 7.1.

**Figure 7.1 Model of Future Research**

<table>
<thead>
<tr>
<th>Contingency Factors</th>
<th>Performance Measurement System</th>
<th>Institutional Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• General external Factors</td>
<td>• BSC Framework</td>
<td>• Coercive Pressures</td>
</tr>
<tr>
<td>• Cultural Factors</td>
<td>– Financial</td>
<td>• Normative Influences</td>
</tr>
<tr>
<td>• Competitive Market Factors</td>
<td>– Customer</td>
<td>• Mimetic Factors</td>
</tr>
<tr>
<td>• Overall Industry and Competitive Market</td>
<td>– Learning and Growth</td>
<td></td>
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<tr>
<td>Environment etc.</td>
<td>– Internal Business Process</td>
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<tr>
<td>• Company factors</td>
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<tr>
<td>• Company Strategies and Policies etc.</td>
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</tbody>
</table>

7.5 Conclusions

The choice of a performance measurement system is critical for every company in every industry. The company must take into account all relevant factors for making short-term and long-term decisions. In the case of Thailand during a period of
deregulation/economic recession following the Asian financial crisis, banks were influenced by short-term factors that led them to focus on financial rather than non-financial measures. The highly uncertain environment made long-term planning difficult, further reinforcing the banks’ reliance on short-term financial measures. However, that reliance on financial measures alone may mislead the firms’ operations in the long-term.

This dissertation is an attempt to understand which factors influence the choice of a firm’s performance measures. Thus, the results of this dissertation provide practical guidelines contributions to performance measurement at banks in Thailand. Specifically, the results highlight the importance of both contingency and institutional factors in influencing the performance measurement system. The results also indicate that while short-term factors may necessitate focus on financial measures alone, firms cannot rely on financial measures alone for long-term strategy.

This dissertation concludes that the Balanced Scorecard emphasises on the importance of both financial and non-financial performance measures for long-term survival is relevant and applicable to a highly uncertain and increasingly competitive developing country banking environment such as Thailand. However, that firms attempting to utilise the BSC ideally need to also understand the form of play in determining the factors that influence performance measures.
APPENDIX
APPENDIX 1

- Interview Introduction (Study Two)
- Interview Questionnaires (Study Two)
- Survey Questionnaire (Study Two)
Study Two: Interview Introduction

Hello, my name is Sriwan Tapanya and I’m a PhD student in Business at Murdoch University in Australia. As part of the research for my thesis, I am undertaking a study of how various commercial banks in Thailand use performance management measures and what kind of performance measures they use. Thank you for agreeing to participate in this study. Shortly, I will ask you a series of questions about the use of performance measures in your institution, but first I would like to ask you a few questions about yourself.

Bank Branch: _________________________
Date: _______________________________
Start time of interview: _______________
Finish time of interview: ______________
Foreign-owned or Thai-owned: ___________

Interviewee Details:

Name: ______________________________
Contract Details: ______________________
Sex: ___M  ___F
Age Group:  
_____ < 20 _____ 20-30 _____ 31-40 _____ 41-50 _____ 50+
Education level: _______________________________________________________
Position: _____________________________________________________________
Tenure: ______________________________________________________________
Interview Questionnaire

Introduction

1. What are the keys financial performance measures formally reported to you? [Examples include profitability, return on equity, return on assets, etc]
2. What are the key non-financial performance measures formally reported to you (in your role as the top manager of the business unit). [Examples include measures such as number of defects, percentage on-time delivery, number of customer returns, etc.)
3. How important are financial and (or versus) non-financial performance measures to you (in your role as the top manager), for the purposes of decision making to improve your firm's short and long term performance?

a. Importance to short-term decision-making: Short-term is defined as (usually) one year. Circle the appropriate number.
   1. Only non-financial measures are important.
   2. Non-financial measures are more important than financial measures.
   3. Non-financial and financial measures are equally important.
   4. Financial measures are more important than non-financial measures.
   5. Only financial measures are important.

b. Importance to long-term decision-making: long-term is commonly defined as a three to five year period. Circle the appropriate number.
   1. Only non-financial measures are important.
   2. Non-financial measures are more important than financial measures.
   3. Non-financial and financial measures are equally important.
   4. Financial measures are more important than non-financial measures.
   5. Only financial measures are important.

Comment (if any):
4. Please provide demographic information:
   a. Your business unit is (check only one):
      ♦ A parent company/headquarters
      ♦ Subsidiary
      ♦ A branch/division

   b. Your position: ______________________

   c. Number of years in this position:________________________

5. Would your business unit be willing to participate in a follow-up study (y/n)? ----- 
   If yes, please provide the information requested below, or attach a business card.
   Name of business unit:---------------------------------------------------------------

   Business unit mailing address and phone number:
   Adamantium Corporation
   123 Main Street
   Austin, TX 78701
   512-123-4567
   512-123-4567
   512-123-4567

   Name and title of the appropriate contact person:
   James Smith
   Vice President, Operations
   Adamantium Corporation
   123 Main Street
   Austin, TX 78701
   512-123-4567
   512-123-4567
   512-123-4567
   512-123-4567
Study Two: Interview Questionnaire: Middle (Branch) Managers

Section A: Firm performance

*In this first section of the interview, I am trying to find out what types of performance measures you use as part of managing the branch’s overall performance.*

1. Span of control (how many people do you manage?)
2. What are your main roles and responsibilities as a bank manager?
3. Is one of the responsibilities keeping track of performance? (Ask this question if this has not been described in the above response).
4. How is this information communicated to you? (Prompt: through reports, meeting etc.)
   4a. How often is this information produced or made available?
   4b. Who is responsible for producing this information?
5. What type of performance do you need to keep track of?
6. Why are you required to keep track of this type of performance?
   (Prompt: legally required, required by head office etc, basis for evaluation of firm performance.)

*For the next set of questions use the table below to prompt and record responses.*

7. What types of measures help you keep track of this performance? Of these measures, which are important for short-term performance, long-term performance? What types of information do you use most often? For example, do you focus more on financial or non-financial information for your decision-making? (Use a five-point Likert scale) Why?
8. Overall which type of performance measure is more important? (Financial or non-financial)
9. What types of decisions do you make when you receive this performance information? Prompt: staffing, customer service, process improvement etc.
10. What is the level of your involvement in making strategic and/or operating changes in response to these performance-related reports?
11. Are there other types of information that you think might be useful to you? (Prompt: Can you give examples of some situations in which in a particular type of information was (or would have been) useful.)
12. Why is this information not currently used? (Prompt: not collected, not available, computer system does not provide it.)

Section B Individual and firm performance

In this section, I would like to ask some questions about general performance evaluation at the branch.

1. How frequently is this branch evaluated? (Prompt: Is this evaluation oral or written?)
2. How often do you formally discuss performance outcomes within your branch?
3. How frequently is your performance evaluated?
4. What are the major bases of evaluation of your individual performance?
5. Is your performance linked with remuneration? (ie is your performance-evaluated salary specifically tied to any corporate income measurement such as EPS, earnings, etc?)
Section C general firm performance questions.

In this section of the interview, I would like to ask some general questions relating to your branch’s performance.

1. What would you say has been the general trend of your branch’s performance over the last 3 years? Prompt: (Growth in sales, income, ROI, ROA, and ROE)?

2. What is the primary reason for this trend? ie external factor, internal factors.

3. Do you feel that the reports you receive outlining the branch’s performance are useful?

4. Apart from the information that you already receive, what other information do you think would be valuable in making your bank more competitive? (About competitors, marketing condition etc)

5. Is there an information system of evaluation that you use in this branch? Please explain.

Thank you for your time.
<table>
<thead>
<tr>
<th>Performance measures</th>
<th>How is it measured?</th>
<th>Which is used most often?</th>
<th>Used for short-term decision making?</th>
<th>Used for long-term decision making?</th>
<th>Other useful information</th>
<th>Why is this not collected?</th>
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<td><strong>Financial measures</strong></td>
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<td>Branch profit</td>
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<td>Product Profitability</td>
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<td>Return on Net Assets</td>
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<td>Return on Equity</td>
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<td>Branch Operating costs</td>
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<td><strong>Non-financial measures</strong></td>
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<td><strong>Customer measures</strong></td>
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<td>Customer Retention</td>
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<td>Customer Profitability</td>
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<td>Customer Acquisition</td>
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<td>Customer Satisfaction</td>
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<td>Customer Complaints</td>
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<td>Customer Waiting</td>
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<td>Market Share</td>
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<td>Market Penetration</td>
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<td>Staff Availability</td>
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<td>Staff Speed and responsiveness</td>
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<td>Staff Skill and Competence</td>
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<td>Staff Appearance and Friendliness</td>
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<td>Staff Discretion</td>
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<td>Number of new accounts opened</td>
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<td><strong>Employee Measures</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Training and Development
Morale
Productivity
Absenteeism promotion
Prestige

**Products**
Profit by product
Number of transactions
Cost per product
Market share per product
New product

A Likert Scale score for the questions 7 and 8, Section A: Firm performance

**7. Short-term decision-making**

1= only financial measures are important.
2= financial measures are more important than non-financial measures.
3= financial measures and non-financial measures are equally important.
4= non-financial measures are more important than financial measures.
5= only non-financial measures are important.

**8. Long-term decision-making**

1= only financial measures are important.
2= financial measures are more important than non-financial measures.
3= financial measures and non-financial measures are equally important.
4= non-financial measures are more important than financial measures.
5= only non-financial measures are important.
Study Two Survey Questionnaire on Performance Measures

Name of Bank……………..
Branch…………………..

**Background Information**

1. Are you male or female?
   1. Male  
   2. Female

2. What is your age group?
   1. Under 30
   2. 31-40
   3. 41-50
   4. Over 50

3. What is your highest academic qualification?
   1. Secondary Education
   2. University Graduate
   3. Post Graduate

4. If you are Graduate or Post Graduate, What is your area of study?
   1. Accountancy
   2. Business Administration
   3. Economics
   4. Law
   5. Engineering
   6. Other (Please specify)--------------------------------------------

5. How many years have you been working at this bank?
   1. Less than a year
   2. 1-2 years
   3. 5-10 years
   4. Over 10 years
Performance Measures

Please indicate which of the following key financial and non-financial performance measures are formally reported to head office.

Section I Financial Measures

1.1 Financial measures: Does the branch use the following financial measures:

(Please tick)

<table>
<thead>
<tr>
<th>Financial Measures</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch profit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Net Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branch Operating costs</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Section II Non-financial measures

2.1 Customer Measures: Does the branch use the following customer measures:

(Please tick)

<table>
<thead>
<tr>
<th>Customer Measures</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Retention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Acquisition</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Complaints</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Waiting</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Market Share</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Market Penetration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Availability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Speed and responsiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Skill and Competence</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Appearance and Friendliness</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Staff Discretion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of new accounts opened</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### 2.2 Employee Measures: Does the branch use the following employee measures:

(Please tick)

<table>
<thead>
<tr>
<th>Employee Measures</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absenteeism promotion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Product Measures: Does the branch use the following product measures:

(Please tick)

<table>
<thead>
<tr>
<th>Product measures</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit by product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of transactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost per product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market share per product</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>New product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit by product</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 2

- Customer Satisfaction Questionnaire
Questionnaire

Customer Satisfaction

Name of Bank………………
Branch…………………

**Background Information**

1. Are you male or female?
   1. Male  2. Female

2. What is your age group?
   1. Under 30
   2. 31-40
   3. 41-50
   4. Over 50

3. What is your highest academic qualification?
   1. Secondary Education
   2. University Graduate
   3. Post Graduate

4. If you are Graduate or Post Graduate, What is your area of study?
   1. Accountancy
   2. Business Administration
   3. Economics
   4. Law
   5. Engineering
   6. Other (Please specify)--------------------------------------------
5. How many years have you been using the service of this bank?
   1. Less than a year
   2. 1-2 years
   3. 5-10 years
   4. Over 10 years

6. Which service areas have you used in this bank?
   1. Foreign Exchange
   2. Current account
   3. Deposit accounts
   4. Savings accounts
   5. Safe Deposit Box
   6. Credit/Charge cards
   7. Investment Advice
   8. Other (please specify)------------------------------

Survey questionnaire

1. I waited a short period of time before I was helped.
   Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
   (1) (2) (3) (4) (5)

2. The service started immediately when I arrived.
   Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
   (1) (2) (3) (4) (5)

3. The teller handled transactions in a short period of time.
   Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
   (1) (2) (3) (4) (5)

4. The teller took a long time to complete my transaction.
   Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
   (1) (2) (3) (4) (5)
5. The customer representative was available to schedule me at a good time.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

6. My appointment with the customer representative was at a convenient time.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

7. The teller talked to me in a pleasant way.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

8. The teller was very personable.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

9. The teller carefully listened to me when I was requesting a transaction.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

10. The teller knew how to handle the transactions.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

11. The quality of the way the teller treated me was high.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>
12. The way the teller treated me met my expectations.

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

13. I am satisfied with the way the teller treated me.

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

14. I am satisfied with my decision to establish a banking relationship with this bank.

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

15. Taking everything into consideration, how do you feel about what you have received from the bank during the course of the banking relationship? *(Please circle a number)*

Very Dissatisfied  Dissatisfied  Neither Satisfied nor Dissatisfied  Satisfied  Very Satisfied
(1)         (2)   (3)               (4)    (5)

16. With respect to your banking relationship, kindly rank your overall level of pleasure/ displeasure in dealing with this particular bank. *(Please circle a number)*

Very Displeased  Displeased  Neither Pleased nor Displeased  Pleased  Very Pleased
(1)        (2)          (3)                    (4)       (5)

17. If you require the services of a bank in the near future for a similar type of transaction, would you [use, choose] the same bank? *(Please circle a number)*

Very Probable  (1)        (2)  (3)    (4)      (5)       Not Probable
18. For your future banking requirements, kindly indicate the likelihood of using the same bank. *(Please circle a number)*

Very Impossible  Impossibly  Neither Possible nor Impossible  Possible  Very Possible
(1)  (2)  (3)  (4)  (5)

19. Taking into consideration that other banks offer this transaction, what is the likelihood that you would choose this particular bank for a similar type of transaction? *(Please circle a number)*

No Chance  (1)  (2)  (3)  (4)  (5) Certain


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