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CUSTOMER-FOCUSED PERFORMANCE AND ITS KEY RESOURCE-BASED DETERMINANTS: AN INTEGRATED FRAMEWORK

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ABSTRACT

Unlike previous studies which emphasize market oriented performance from the perspective of firms or customers, but mainly internally, the paper proposes that firms should prioritize customer-focused performance defined totally externally from the perspective of targeted customers, which are the fundamental drivers of purchasing or repurchasing behaviors of customers and consequently the key to successful competition in the customer-centered era. Then, the role of customer-focused performance in the overall business performance system is examined. After the components and dynamics of customer-focused performance are analyzed, much attention is given to its key determinants in perspective of a resource-based view, which aims mainly at bridging the current gaps between strategic management and service management. In addition, important propositions are presented and future implications are discussed.

Key Words: *Customer-Focused Performance; Customer Value; Core competence; Organizational Learning; Strategic Flexibility*

INTRODUCTION

On the one side, with the stronger trends such as the contraction of communication cycles, blurring of industry boundaries, deconstruction of traditional value chains and industries that are being 'blown to bits', customers are playing an increasingly important role for business success now and in the future. They have moved out of the audience and onto the stage. Consequently, customers are fundamentally changing the dynamics of the marketplace and the market has become a forum in which customers play an active role in creating and competing for value (Prahalad and Ramaswamy, 2000). Concepts such as customer orientation, close to customer, customer segmentation and niche marketing, customers as co-producer (Wikstrom, 1996), value co-production, critical co-developer of knowledge and competences and co-opting customer knowledge (Gibbert, et al., 2001) are showing the more significant role customers play in today's business success than ever. As a result, customer-focused performance defined totally externally in perspective of targeted customers, which is the truly fundamental drivers of purchasing or repurchasing behaviors of customers, should become the priority of any firm to compete successfully (Wang and Lo, 2003).

On the other side, in environments characterized by high velocity change, accelerating product life cycles, narrowing customer niches, mass customization and technological discontinuities, today's product market can appear and disappear quickly (D' Aveni,1994) and traditional product-centered strategies provide little long-term advantage (Christensen,1998). The increasingly dynamic nature of competition has made the improvement of organizational learning and the development of more effective methods for managing knowledge and other intangible resources a central concern of contemporary strategic management. Consequently, the resource-based view and dynamic capabilities view which emphasize the critical importance to sustainable competitive advantage and performance of intangible resources and competences that are valuable, rare, inimitable and short of substitutes (Barney, 1991; Teece, 1997) have won increasing attention both from academic and practical circles. Efforts are renewed to understand how firms can develop dynamic capabilities that enable a firm to deploy, integrate, and reconfigure its skills and knowledge in order to adapt to a changing business environment. The dynamic process of developing the firm's resources and competences has also turn attention of firms to collective learning (Prahalad and Hamel, 1990), a process through which organizations apply existing knowledge and develop new knowledge that shapes the development of new competences that are necessary in the changing environment (Kogut and Zander, 1992; Henderson and Cockburn, 1994). Furthermore, this work has highlighted the need for a deeper understanding of how trajectories of knowledge and capabilities develop and how factors such absorptive capability (Cohen and Levinthal, 1990) and "lock in"(Dosi, 1988) influence the process of knowledge and capability development.

However, up to now, there have been only a few, if any, systematic studies done in this field. On the one hand, in today's dynamic environments, customers are playing a more and more important role in business competition and many practices have been advocated to understand customer demands in the eyes of customers themselves and to try to translate them into business language and actions. However, few progresses have been made concerning customer-focused performance we will define and discuss later, although many studies have been made of business performance, most of which take overall performance, market performance or new product performance as the

focus. Furthermore, although studies focusing on such topics as customer satisfaction, customer value, customer relationship management or service marketing are proliferating rapidly, only a few try to explore the fundamental sources of customer satisfaction, customer value, or service quality, etc. through the perspective of a resource-based view in the field of service marketing (Srivastava, et al., 1998). On the other hand, in the field of strategic management, although a few empirical studies have examined the impacts of core competences or dynamic capabilities on overall performance or financial performance of a firm, less is known about their influences on customer-focused performance such as customer perceived service quality, customer value, customer satisfaction, etc. Furthermore, there is a strong trend where scholars and managers try to explain or study the influential factors of competitive advantages and performance in their own perspectives and ignore the rationality of views from other streams. Thus, little efforts have been made to integrate knowledge management, organizational learning, and competence-based competition with empirical investigations and, as a result, few studies have been done to explore the interactive relationships between knowledge acquisition, accumulation and sharing, organizational learning, competence building and leveraging and their decisive impacts on customer satisfaction, service quality and other dimensions of firm performance. Besides, even though almost all researchers agree that firms which compete in present and future situations would encounter a more dynamic environment and have to try their best to be as flexible strategically as possible to respond effectively and efficiently to the increasingly fast-changing environment, few take strategic flexibility into account when they try to explore or test the casual consequences between different factors and firm performance. Therefore, drawing on an increasingly growing body of literature that distinguishes between a firm's products and a firm's resources and capabilities (Snow and Hrebiniak 1980; Hitt and Ireland, 1985; Barney, 1991; Henderson and Cockburn, 1994; Markides and Williamson, 1996), that emphasizes organizational learning (Argyris, 1990;Senge, 1990), and pays more attention to customer satisfaction and service quality (Gronroos, 1984; Parasuraman, et al., 1985; Zeithaml, 1996; Anderson, et al., 1994), we try to bridge those gaps in today's dynamic environments.

In this paper, we aim at defining customer-focused performance through the perspective of customers totally externally and identifying its key determinants on the basis of the integration of a resource-based view and dynamic capability view. Section two, following the introduction, gives a simple definition of customer-focused performance and its key role in the whole business performance system and discusses the interactive relationships among different dimensions of performance. Then components and dynamics of customer-focused performance are analyzed in section three. Further, section four provides an integrated conceptual framework for the key determinants of customer-focused performance through the perspective of a resource-based view and dynamic capability view, while trying to combine external perspective from customers and internal perspectives within firms in order to help managers bring together these seemingly disparate elements of a company's competitive agenda. These elements are described as customer oriented, marketing driven, learning oriented, competence-based, and managing for the long term, etc. Given that several propositions are given, it is further hoped that this research will provide valuable insight and lay a fundamental foundation for future empirical studies. Finally, the implications and conclusions are provided and future research directions are given.

CUSTOMER-FOCUSED PERFORMANCE

The definition of customer-focused performance

In hypercompetitive environments (D' Aveni, 1994), the nature of business competition is to compete for share of customers (Grant and Schlesinger, 1995). Consequently, customer-focused performance, which is defined in this paper as the performance perceived and evaluated directly and externally by customers themselves based on what a firm provides them, has become the key dimension in, and the decisive source of, business competitive advantages given its significant role in impacting the decision-making and behavior patterns of customers (Wang and Lo, 2003). Only by addressing this, can firms go beyond the traditional financial performance, understand the real requirements of their targeted customers, act on the actual information about the changing demands of customers, and deliver more superior customer value to satisfy their targeted customers better than their competitors. That is why, in fact, we strongly recommend that firms should define systemically some of their performance measures directly based on customer assessment and view performance through their customers' eyes. In addition, this would be consistent with most firms' mission or vision statements, which pointedly refer to the special significance of customers (Kaplan and Norton, 1992).

Therefore, how a company is performing from its customers' perspective has become inevitably a priority for top management, which reinforces the significance of customer-focused performance as defined in this paper. In practice, it seems as well that some firms have begun to act unconsciously based on this idea. For

example, the J.D. Powers quality survey has become the standard of performance in the automobile industry (Kaplan and Norton, 1992). Firms, therefore, must maneuver all their resources, competences and operational activities around improving and achieving superior customer-focused performance, because this can provide a practical standard to justify activities of a firm by examining whether they are valued by targeted customers or not. However, it should be noted that when we advocate the significance of customer-focused performance, we do not implicate that there is no need for a firm to evaluate and improve other dimensions of performance. After all, the financial performance is one of the fundamental factors to determine the survival of a firm.

The significant role of customer-focused performance

Traditionally, firms are believed to exist for shareholders and their performance is measured financially. They focus primarily on the character and rate of financial return, operating income and return on investment or a little better, taking sales growth, earnings growth, market share changes and cash flow into account. However, with the bargaining power of other stakeholders becoming stronger and stronger, the situation has changed significantly. Financial measures have been criticized for their well-documented inadequacies, their backward-looking focus and their inability to reflect contemporary value-creating actions. Further, they are only results of operational actions and reflect nothing about customer satisfaction, value, service quality, cycle time, employee motivation, etc., all of which determine the final financial performance of a firm directly or indirectly. Furthermore, the financial measures usually ignore most of the intangible assets such as core competences, dynamic capabilities, employee skills, customer base, etc., which may impact customer-focused performance and financial performance of a firm significantly now and in future.

Accordingly, different perspectives have been introduced to help firms compete successfully and survive in the long-term; for example, the special interests of other stakeholders such as customers (suppliers, retailer, dealer and ultimate clients), employees, managers, government, communities and so on. Figure 1 shows the interactive relationships of customer-focused performance, shareholder-based performance and employee-based perception. As a famous and useful measurement of performance, the balanced scorecard is one of the typical examples of the interactive relationships. It consists of customer perspective, internal business perspective, innovation and learning perspective and financial perspective. However, there are still some differences between what we called customer-focused performance and what Kaplan defines as from the customer's perspective. The former stresses what customers can see, feel, perceive, get and value; that is, what they can see and perceive by themselves, while some elements of the latter are not actually from customers' perspective by virtue. For example, customers show less concern in how soon a new product is launched, what is the unique marketing knowledge of a firm to deliver the offerings, the sale growth of the new products, the percent of sales from new products or the customer's retention rate, which are often considered performance measures of customer perspective by Kaplan and Norton (1992). In comparison, customers show more interest in how much value they can get, how much they may sacrifice, how good the quality is and to which degree they can be satisfied, all of which are external measures evaluated and perceived by customers directly and constitute customer-focused performance we defined above as significant measures. In fact, Kaplan's performance measures reflect, to some degree, a firm's internal view of customers' perspective.

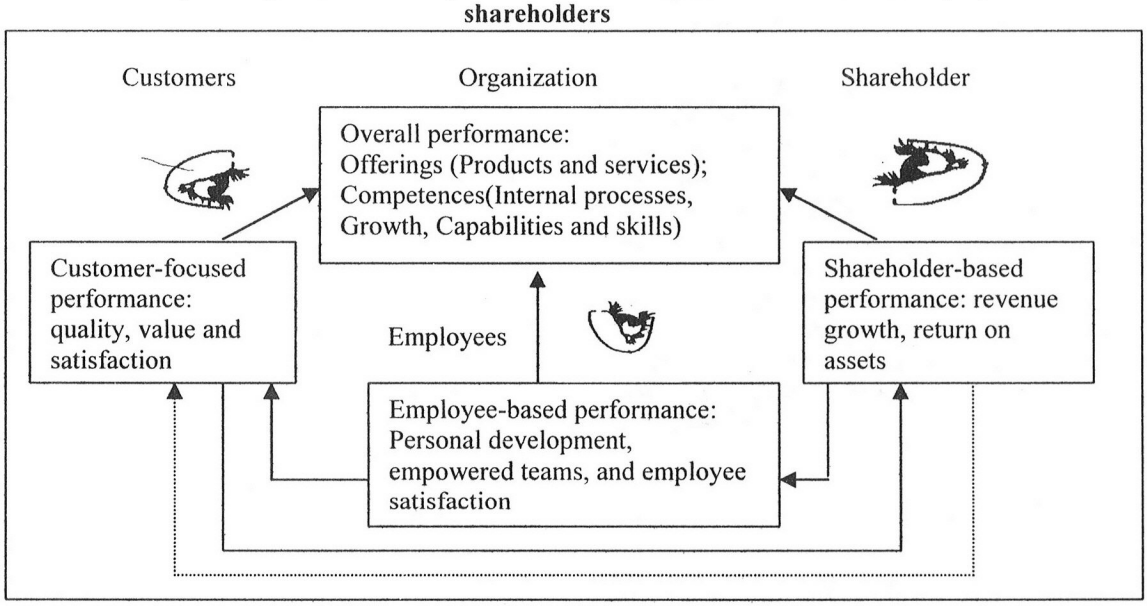
As a whole system, all these four perspectives (shareholder perspective, customer perspective, internal process perspective and learning and growth perspective) have their own benefits and emphases and they also interact with one another continually. Creating value for shareholder has been said to be the purpose of business, shareholder value, however, it is really the outcome of business success, not its intrinsic reasoning for being. Only if the true purpose, creating and providing valuable products and services for customers, is firstly met, can a firm provide shareholder value (Latitamaki, 1997). Therefore, generally speaking, just like Peter Drucker (1973) reminds us of the principle that business success is not determined by the producer but by customer, customer-focused dimension should be the emphasis, true priority and worthy of plenty of managerial attention. It not only acts as the key driver of financial dimension, but also determines what the other two dimensions should be. In other words, internal processes and learning and growth dimensions act as the basis and provide support for customer-focused dimension, while the latter can drive financial performance as a result. This can be seen easily in Heskett et al.'s service profit chain model (1997), which stipulates that there is a direct and strg relationship between customer loyalty, customer satisfaction, value of goods and services delivered to customers, service quality and productivity, employee capability, satisfaction and loyalty, profit and growth. Similarly, the employee-customer profit chain model developed by Rucci et al. (1998) describes further the interactive relationship among different dimensions of business performance, in which they insist that compelling place to work provides solid

support for compelling place to shop and finally drives compelling place to invest. Figure 1 shows the relationships among dimensions of performance in different perspectives. On the one hand, the more customer value, the more attractive and the more competitive, resulting in higher employees' satisfaction and superior profitability. On the other hand, the more shareholders value, the more money for investments in R&D, training and customer service systems, and the more competitive resulting in superior customer-focused performance, which shows the positively virtual cycles of interactive improvements dynamically.

In fact, customer-focused performance represents not only short-term competitiveness, but also long-term or potential competitiveness in some sense. For example, as a key indicator of customer-focused performance, customer satisfaction has often been considered one of the important dimensions of performance of a firm, when competitiveness or performance is studied strategically or operationally. Enhanced customer satisfaction, greater customer loyalty, increased sales and productivity, high new product success, effectiveness of internal processes, innovation and improvement activities and higher employees' satisfaction and empowerment are all inter-linked and will always lead to more sustainable competitive advantage (Meyers, Sivakumar, and Nakata, 1999). As for other aspects of customer-focused performance, Zeithaml et al. (1996) report a study of the links between service quality and customer behavior, in which the overall findings offer strong support for the intuitive notion that improving service quality can increase favorable behavioral intentions and decrease unfavorable intentions, implicating great potential for more profit. Rust et al. (1995) examine the links between service quality, customer satisfaction, loyalty and profitability and provide strong support for the profit impact of improvements of service quality. Similarly, Kordupleski (1995) provides empirical evidence that shows how successful customer value based strategy improves the ingredients of high shareholder value. For example, AT&T research shows how improvements in revenue share growth are driven by improvement in superior customer value. Parasuraman (1997) gives further empirical evidence of a systematic, positive association between customer value and organizational value (stockholder), which provides an impetus for implementing value-based strategies in companies that might otherwise be reluctant to do so. As a result of the above discussion, we can make the following proposition:

Proposition 1: *Firms with superior customer-focused performance usually lead to superior financial performance.*

FIGURE-1
Relationship among dimensions of performance: example from customers, employees and shareholders



Therefore, the activities best suited to today's competitive environment may be those that help to achieve superior customer-focused performance, through which the interests of other stakeholders such as shareholders and employees can also be met, resulting in higher profitability. Accordingly, all other dimensions have to serve as the basis of and provide support for customer-focused performance throughout the process, including investment in employee training and

advertisement, customer satisfaction and bright career development. In fact, as discussed above, a number of PIMS (profit impact of market strategies) studies have provided valuable empirical support for positive quality-profitability relationship (e.g., Buzzell and Gale, 1987; Zeithaml, 1996; Rust et al., 1995).

The dynamics of the key components of customer-focused performance

Accordingly, any firm should redeploy and link its business processes together and build strong dynamic capabilities based on the logic of value innovation to support, improve and even redefine the most important price and quality attributes that drive customer-focused performance in each business process so as to provide a smooth and efficient flow of satisfying experiences for customers. However, what constitute customer-focused performance and what does it mean in practice? Of course, there are many factors in which customers may show interests in practice which reflect certain dimensions of customer-focused performance. However, all of these factors tend to fall into four categories: time, quality, performance and service, and cost (including price, effort, energy and other related cost such as ordering, scheduling, delivering, learning, maintenance or disposal). In this paper, we suggest that service quality, customer value, customer sacrifice and customer satisfaction are the most effective and important dimensions of customer-focused performance. They reflect customers concern, mentioned above, quite well and they are related directly to customer perception and, hence, influence their purchasing decision makings. For example, on the one hand, time, quality and cost can all be reflected in terms of customer perceived service quality or customer sacrifice. On the other hand, the same attributes can be understood even better in terms of customer value if they are combined together, and the combination of performance and service can then measure how the company's quality of product or services contributes to creating value for customers.

Customer perceived service quality: It has been widely accepted that quality products can result in not only low cost by reducing waste and deficiencies, but also high competitiveness by establishing good reputation, delivering superior customer value and realizing other positive effects of attracting and retaining customers. As a result, with the changing role of customer (Prahald and Ramaswamy, 2000), customer perceived service quality has been given more and more attention for its specific contribution to business competitiveness.

Although an increasing number of research findings have appeared concerning quality in the past two decades, it is still worth noting here that there are several distinct conceptualizations of quality. In marketing and economics, quality often has been viewed as dependent on the level of product attributes. In operations management, quality is defined as having two primary dimensions (e.g., Garvin, 1988): (1) fitness of use: Does the product or service do what it is supposed to do? Does it possess features that meet the needs of customers? and (2) reliability: To what extent is the product free from deficiencies? In service literature, traditionally, service quality has been defined as the difference between customer expectations and perceptions of service (Gronroos, 1984; Lewis and Booms, 1983; Parasuraman, et al., 1985). These researchers believe that measuring service quality as disconfirmation (the difference between perceptions and expectations) is valid and allows service providers to identify several gaps in the service provided. However, most of these studies have found a poor fit for the disconfirmation model. As a result, their SERVQUAL scale had been criticized by researchers for its use of gap scores, for its measurement of expectations, for positively and negatively worded items, for the generalizability of its dimensions, and for the defining of a baseline standard for good quality (Cronin and Taylor,1992; Brown, Churchill and Peter,1993; Oliver, 1993; Teas,1993) Further, problems of reliability, discriminant validity and variance restriction exist because of the computed difference scores. As a result, researchers have tried to combine expectations and perceptions into a single measure to alleviate these problems and have found that it really outperforms the SERVQUAL scale in term of both reliability and validity (Babakus and Boller, 1992; Brown, Churchill, and Peter, 1993; Dabholkar et al., 2000). However, only a few studies have used multi-item measures for overall service quality (Dabholkar, et al., 2000; Dabholkar, Thorpe and Rentz, 1996; Spreng and Mackoy, 1996; Taylor and Baker, 1994), while most (Babakus and Boller, 1992; Bolton and Drew, 1991) have used a single-item measure, which makes it impossible to ascertain the reliability of the construct.

In the studies mentioned above, researchers argue that superior customer perceived service quality always leads to satisfactory financial performance (i.e., Spreng and Mackoy,

1996; Taylor and Baker, 1994). Thus, we can make the following proposition:

Proposition 1a: *Superior customer perceived service quality usually leads to superior financial performance.*

Customer Value: Driven by demanding customers, keen competition and rapid technological changes, more and more firms are searching for new ways to achieve, retain, upgrade and leverage competitive advantages. As a result, many firms are transforming their focus from looking internally for improvement by way of quality management, downsizing, business process reengineering or lean production and agile manufacturing to pursuing superior customer value delivery (Day, 1990; Gale, 1994; Naumann, 1995; Butz, 1996; Woodruff, 1997). Furthermore, as some researchers have concluded (Narver and Slater, 1990), creating superior customer value is a major goal for market-driven firms and delivering superior customer value is inevitably becoming one of the most important successful factors for any firm now and in the future. In fact, there is a lot of evidence to support the key position of customer value for success of firms. For example, the experience of many publicized successful companies such as AT&T, Federal Express and Xerox and the conclusion of the positive relationship between market orientation and organizational performance (Slater and Narver, 1992; Jaworski and Kohli, 1993). Thus, we can have the following proposition:

Proposition 1b: *Superior customer value usually leads to superior financial performance.*

Although the significance of customer value is widely recognized, the growing body of research on customer value is quite fragmented and the definitions of customer value diverge. Zeithamml (1988) considers value as the customer's overall assessment of the utility of a product based on perception of what is received and what is given. Gale (1994) considers it as market perceived quality adjusted for relative price of the product. Butz and Goodstein (1996) define it as the emotional bond established between a customer and a producer after the customer has used a salient product or service produced by that supplier. Woodruff (1997) defines value as customer perceived preferences for and evaluation of those product attributes, attribute performances and consequences arising from use that facilitate achieving the customer's goals and purposes. Woodruff's definition is based on empirical research into how customers think about value. However, it is clear that there are some areas of consensus among the different concepts mentioned above. For example, customer value is inherent in some products or service, or is linked through their use. Customer value is something perceived by the customer, rather than objectively determined by sellers or other stakeholders, and those perception processes typically involve a trade-off between what customers receive, such as quality, benefits, and utilities and what they give up, such as price, sacrifices including opportunity cost, maintenance and learning cost. The present study concurs with the majority of researchers who define customer value in terms of get (benefit) and give (sacrifice) components (Woodruff, 1997; Slater, 1997; Ravald and Gronroos, 1996;Slater and Narver, 1992; Narver and Slater, 1990; Day 1990; Zeithaml, 1988) although some researchers argue that perceived value is made of only benefits (Hunt and Morgan, 1995; Hamel and Prahalad, 1994). In addition, all of the studies mentioned above indicate that superior customer perceived service quality always leads to superior customer value (i.e., Woodruff, 1997; Slater, 1997; Ravald and Gronroos, 1996). Thus we can have the following proposition:

Proposition 2a: *Customer perceived service quality is an antecedent of customer value.*

As far as the significance of customer perceived value is concerned, researchers are now paying more attention to operationalization of this concept recently. Among them, Sheth, Newman and Gross (1991) develop a broad theoretical framework. They suggest five dimensions of value, i.e., social, emotional, functional, epistemic and conditional value, which provides the best foundation for extending existing value construct. However, no well-established scale of customer value appears up to now.

Customer perceived sacrifice: As is discussed above, customer value has a relation with not only what customers can get, but also what they have to give up, that is, customer perceived sacrifice. Sacrifice refers to what is given up or sacrificed to acquire a product or service (Zeithaml, 1988; Cronin, et al., 1997). For example, Lapierre (2000) identifies the key drivers of customer perceived value and clarifies sacrifice as one of the two key factors (the other is the benefits). However, not only is price considered as an element of sacrifice, but also other non-monetary factors are believed to be closely related to sacrifice (deRuyter et al., 1997). As some studies have shown, many customers count time rather than dollar cost as their most precious asset when they make purchasing decisions, which determines the financial performance of a firm. Therefore, generally speaking, it is obvious that

there are two broad kinds of sacrifice: monetary costs and non-monetary costs. The former can be assessed by a direct measure of the dollar price of the service or product and the latter can be defined as the time, effort, energy, distance and conflict invested by customers to obtain the products or services or to establish a relationship with a supplier. As a result of the above discussion, we can make the following propositions:

Proposition 1c: *Both monetary sacrifice and non-monetary sacrifice customers perceived influence negatively the financial performance of a firm.*

Proposition 2b: *Both monetary sacrifice and non-monetary sacrifice customers perceived have a negative influence on customer value.*

Customer satisfaction: By nature, the study of customer satisfaction typically falls within the domain of marketing (Rust and Zahorik, 1993; Anderson et al., 1994). It is perceived to be a key indicator of a firm's market share and profitability and portrayed as an important indicator of a firm's overall financial health. Simply stated, a satisfied customer will repeat his/her purchase of the goods or services, increasing a firm's market share and profits, which indicates its significance to successful competition in a customer-centered era.

Generally speaking, there are at least two different conceptualizations of customer satisfaction. One is transaction-specific, the other is cumulative. From a transaction-specific perspective, customer satisfaction is viewed as a post-choice evaluative judgment of a specific purchase occasion (Oliver, 1977,1993) and behavioral researchers have developed a rich body of literature focusing on the antecedents and consequences of this type of customer satisfaction at the individual level (Zeithaml, 1988). By contrast, cumulative customer satisfaction is an overall evaluation based on the total purchase and consumption experiences with a product or service over time (Fornell, 1992), which is a more fundamental indicator of the firm's past, present, and future performance. It is the cumulative customer satisfaction that motivates a firm's investment in customer satisfaction. So here our theoretical framework treats customer satisfaction as cumulative. Furthermore, satisfaction is a multi-level phenomenon including attributed-based satisfaction, consequence-based satisfaction and goal-based satisfaction at the same time, all of which should be given enough emphasis for improvements.

Fornell (1992) enumerates several key benefits of high customer satisfaction for the firm. In general, high customer satisfaction should indicate increased loyalty for current customers, reduced price elasticity (Garvin, 1988), insulation of current customers from competitive efforts, lower costs future transaction, reduced failure costs and low costs of attracting new customers and enhanced reputation for the firm. For example, increased current loyalty means more customers will repurchase (be retained) in the future and ensures a steady stream of future cash flow; an increase in customer satisfaction should enhance the overall reputation of the firm. An enhanced reputation can aid in introducing new products by providing instant awareness and by lowering the buyers' risk of trial (Robertson and Gatignon, 1986). Furthermore, reputation also can be beneficial in establishing and maintaining relationships with key suppliers, distributors, and potential allies. Thus, we can make the following proposition:

Proposition 1d: *Customer satisfaction has an important influence on the financial performance of a firm.*

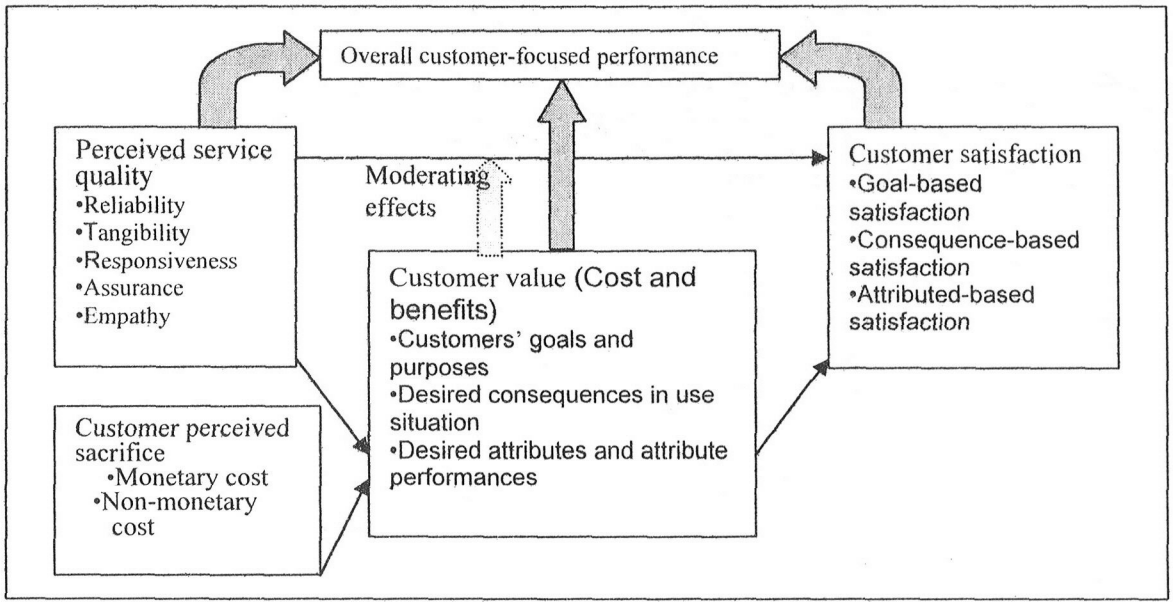
Furthermore, service quality, customer value and customer satisfaction also interact dynamically with one another. For example, Oliver (1993) first suggests that service quality should be an antecedent of customer satisfaction, regardless of whether these constructs were measured for a given experience or over time. McDougall and Levesque (2000) identify two key drivers of customer satisfaction: service quality and customer value. Similarly, Patterson and Spreng (1997) find the dynamic interactive relationships among service quality, customer value and satisfaction and their impact on purchasing behaviors. Up to now, there are already some other researchers who have found empirical support for the view of point mentioned above (Anderson et al., 1993; Spreng and Mackoym, 1996), wherein customer satisfaction is a consequence of service quality and customer value (see Figure 2). In addition, recently, researchers find that there exists a moderating effect of customer value on the relationship between service quality and customer satisfaction (Caruana, et al., 2000). Thus, we can make the following propositions:

Proposition 2c: *Customer value contributes positively to customer satisfaction.*

Proposition 2d: *Customer perceived service quality contributes positively to customer satisfaction.*

Proposition 2e: *Customer value moderates the relationship between customer perceived service quality and customer satisfaction.*

FIGURE 2
Customer-focused performance: components and dynamics



Researchers sometimes make the distinction between customer satisfaction and value obscure. For example, among the five items Qiang Tu et al. (2001) use to measure value to customers, at least two items are in fact measuring customer satisfaction by nature. Besides, empirical studies have, for the most part, not addressed the differential effects of service quality and customer satisfaction except those by Taylor and Baker (1994), Gotlieb, Grewal, and Brown (1994) and Dabholkar (2000). And findings are somewhat different across these studies and more research is needed. In addition, the relationships between customer satisfaction and other constructs mentioned in the paper have been rarely discussed up to now, which implicates the necessity of more related research.

THE KEY DETERMINANTS OF CUSTOMER-FOCUSED PERFORMANCE IN TURBULENT ENVIRONMENTS

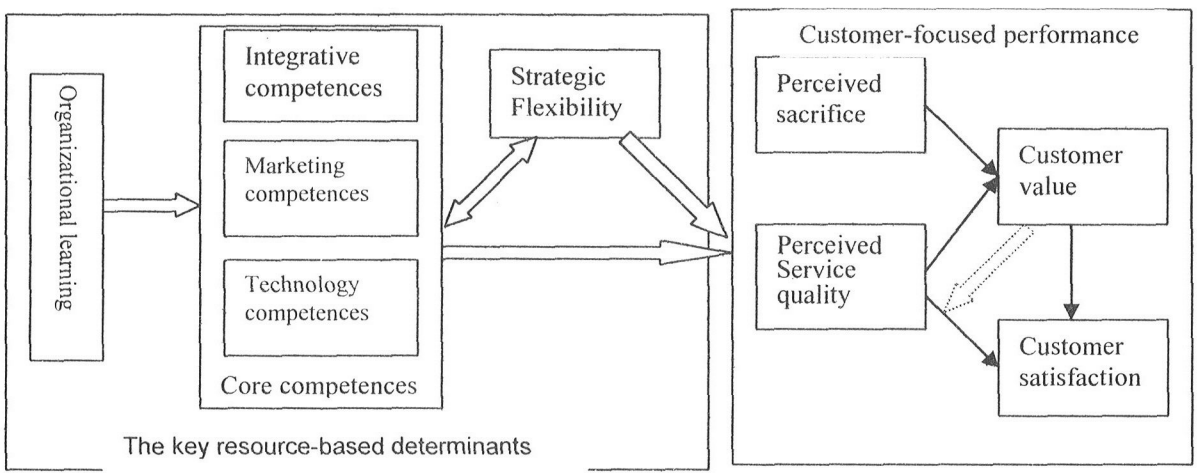
Although customer-focused measures are important, they must be translated into measures of what a company must do internally to meet its targeted customers' expectations. Many studies, especially resource-based ones, witness that sustainable competitive advantage does not rest in industry structure or the firm's membership in a collective, but rather in its strategic resources and core competences that are a complex combination of processes, routines, technologies and individual skills. That means that superior performance is always derived from the possession of unique difficult-to-imitate skills, knowledge, resources or competences and assets. For example, large-scale statistical studies of the industry effect, while they produce different quantitative estimates, generally agree that only 16-19 percent of the total variations in profit between business units can be directly explained by industry variables (Rumelt, 1991). Thus, superior customer-focused performance is achieved through a set of interlinked business processes and coordination of strategic resources whose goal is to satisfy customer needs. Such key determinants of performance as customer care, structure change, marketing effort, reputation, organizational redesign, distribution strength and staff skills (Petroni,2000) can all be reflected by the strategic resources and core competences of a firm.

A conceptual framework

Those factors that interact with one another and are combined to lay a solid foundation for the distinctive competences of a firm are difficult to copy or imitate, and, finally, determine the firm's customer-focused performance, as shown in Figure 3. The resource-based view allows each action to be referenced to the satisfaction of customer needs; in other words, to the delivery of value (Hamel and Prahalad, 1989; Chiesa and Barbeschi, 1994). Turbulent environments characterized by dynamics, complexity and unpredictability determine the

sustainability of existing core competences or competitive advantages and require organizations to make continual improvements to their existing products and processes, and foster the ability to introduce entirely new products with expanded capabilities. Organizations, as a result, must decide on and measure the processes and competences they must excel at and the critical technologies needed to ensure continued market leadership. In addition, they must build and upgrade their unique competences through organizational learning and make great efforts to enhance strategic flexibility according to different levels of environmental turbulence, which help to identify trends in business, track performance of customer value delivery, deal with ambiguity and support quick response.

FIGURE-3
Conceptual model for the key determinants of customer-focused performance



It should be noted that this conceptual model is applicable not only to manufacturing companies but also to service companies, given that both kinds of firms need to build and leverage their unique competences to achieve superior customer-focused performance. For example, Federal Express has achieved sustainable competitive advantages in the service market by building and leveraging competences in package transport and delivery such as bar-coding technologies and linear programming skills, which provide superior customer value and rapid responses. Wal-Mart has realized rapid and sustainable growth based on its unique competences, such as its cross-dock transportation system, its inventory management skills, and its accumulated knowledge about delivering large amount of goods globally and rapidly. Wal-Mart has also developed meta-competences that enable it to transfer from the original location-based advantages to the more dynamic knowledge-based advantages. Similarly, the continuous building and leveraging processes of the competences in brand management of Coca Cola, the innovative capabilities of 3M, the particular imaging technologies of Canon, the lean production system of Toyota, the agile manufacturing techniques of Mazda, the mail-order sales management of Dell Computers, and the fast-flexible response of Boeing based on its multitask production equipment, enable all of these businesses to deliver high quality products/services and superior customer value and thus achieve higher customer satisfaction (Hamel and Heene, 1994).

Core competences

Bogner and Thomas (1994) define core competences as firm-specific skills and cognitive traits directed towards the attainment of the highest possible levels of customer satisfaction vis-à-vis competitors. These can be leveraged directly to satisfy existing customer needs or indirectly to develop a range of core products or core services, based on which stream of final products or service of higher quality is delivered. Therefore, core competences are skills that enable a firm to deliver a fundamental customer benefits (Hamel and Heene, 1994) by enabling the firm to establish, enhance, upgrade and utilize proprietary access to those resources that lead to sustainable competitive advantages.

However, core competences are the least definable kinds of productive resources, and

consist of complex bundles of constituent skills and technologies, collective learning, and both tacit and explicit knowledge, contributing to competitiveness through organizational processes that ensure superior coordination of functional activities (Prahalad and Hamel, 1990). They have often been refereed to in the contexts of functional areas (Snow and Hrebiniak, 1980), abilities, technologies (Prahalad and Hamel, 1990) and simply skills and resources (Reed and deFillippi, 1990). Furthermore, they can provide the conceptual glue that gives shared meaning to all the separate functional activities and programs and serve to coordinate the competitive actions driven by the unique strategic positioning of a firm. Even though these competences are in large measure a by-product of past activities, what matters at any point of time is the range of future activities that they make possible and constitute the fundamental sources of sustainable competitive advantages of a firm (Prahalad and Hamel, 1990; Leonard-Barton, 1992; Lei et al., 1996). In addition, a firm's current core competences serve as platforms for ongoing development and application of those new competences needed to sustain competitive advantages in the future, which evolve through an iteration of doing and learning, with each sequence expanding knowledge and enriching core competences (Bonger and Thomas, 1994). In fact, with the rapid development of information and communication technologies and the globalization of industries, environment is becoming more dynamic, uncertain and unpredictable, which suggests that these core competences cannot be static. They must be continually evolving and developing. Accordingly, a firm must continue to invest in and upgrade their competences to create new strategic growth alternatives. This enables the firm to remain flexible and respond quickly to unpredicted or unexpected changes in the environment, which indicates a higher strategic flexibility (Sanchez, 1995). Hitt, Keats, and DeMarire (1998) explore the influence of core competences on strategic flexibility in detail. Thus, we can make the following proposition.

Proposition 3: *Core competences have significant impacts on strategic flexibility.*

This may explain why firms are being increasingly seen as portfolios of core competences, which admits a proactive construction of competences, sees competences as spanning multiple businesses, and considers competition as being over the acquisition and development of competences.

Recent theoretical developments and empirical evidence have shown that firms with superior competences are better generators of information about customer wants and needs and are also better at developing and marketing goods or services to meet these wants and needs by well coordinated activities. Furthermore, superior competences also give firms the capability to generate and act on knowledge about competitor actions and reactions, which enable them to achieve competitive advantages and superior customer-focused performance (Narver and Slater, 1990; Tuominen et al., 1997; Woodruff, 1997). For example, product related factors such as product quality, and product customization, service related factors such as responsiveness, flexibility, reliability and technical competence, and relationship related factors such as image, time/effort/energy and solidarity are all customer value drivers or sources (Lapierre, 2000, Ravald and Gronroos, 1996; Bolton and Drew, 1991; Zeithaml, 1988). However, to sustain those advantages, core competences ***must add value***, be difficult to replace by substitute processes, be difficult for competitors to imitate and be immobile across firm boundaries (Barney, 1991; Grant, 1991, 1996). Furthermore, at least four mechanisms related to core competences such as time-compression diseconomies, asset mass efficiencies, asset interconnectedness and causal ambiguity (Dierickx and Cool, 1989) help to prevent both cheap and rapid asset accumulation and contribute to the sustaining of competitive advantages resulting from core competences. In addition, to qualify as a core competence, a capability meets the following requirements: it must be a close integration of skills or technologies, be competitively unique, and ***must contribute to customer perceived value*** and provide an entry into new markets (Prahalad, Hamel, 1990; Hamel and Heene, 1994). As a result of the above discussion, we can make the following proposition:

Proposition 4: *Core competences are the key determinants of customer-focused performance.*

The constituents of core competences

Today, there are hundreds of different ways to view core competences with different emphasis. For example, Meyer and Utterback (1993) emphasize the special role of technology and identify single out R&D competence, production and manufacturing competence, and marketing competence. Dosi and Teece (1993) define core competences as allocative competence, transactional competence, administrative competence and technical competence. Leonard Barton (1992) emphasizes the importance of

knowledge and considers core competences as a complex knowledge system that includes employee skills and learning, and the technological, managerial and value systems of a firm. Hamel and Heene (1994) distinguish market-access competences, integrity-related competences and functionality-related competences. Similarly, Bogner and Thomas (1994) argue that core competences are comprised of three fundamental constituents: shared value systems, recipes and routines, and tacit understanding of interaction. Hall (1994) believes those functional, cultural, positional and regulatory capabilities as a whole constitute and determine the competitiveness of a firm.

Based on the above analysis, although there is a strong tendency to focus on technological competences as the basis for core competences, other knowledge-based or experiential asset and even organizational culture may underlie core competences (Barney, 1986; Hamel, 1994; Hall, 1994; Wang and Lo, 2003). Furthermore, since core competences often go beyond traditional boundary of functions and result from capabilities integrated across functional lines, and are deployed across multiple product-markets to leverage the firm-specific value-added activities and processes, we can breakdown core competences into three constituents, which correspond with the research conducted by Tyler (2001) to a great extent. These three constituents are technological competences, marketing competences and integrative competences, each of which has its special contribution to core competences of a firm. Generally speaking, technological competences determine which kinds of products or service can be produced technically at one time, marketing competences determine the extent that a firm can detect accurately which kinds of products or services are demanded by targeted customers, and integrative competences reflect the degree of fitness between the above first two constituents of core competences and the effectiveness and efficiency of delivering offerings with superior customer value. It is with the last constituents, for example, human capital and knowledge learning culture, that a firm can encompass its unique human, physical, organizational and coordinating resources, respond to a variety of changing environmental conditions and deploy its resources in ways that can lead to competitive advantages. Thus, we can make the following proposition:

Proposition 5: *The three constituents of core competences do not contribute the same way or equally to customer-focused performance of a firm.*

Technological competences: technological competences refer to the ability to develop and design new products and processes and combine knowledge about physical world in unique ways, transforming this knowledge into designs and instructions for creation of desired outcomes (Miyazaki, 1994;Lapierre, 2000; Tyler, 2001). More concretely, technological competences are a set of pieces of knowledge consisting of both practical and theoretical know-how, methods, procedures, experience and physical devices and equipments (Patel and Pavitt, 1997; Prencipe, 1997). They also refer to the superior and heterogeneous technical assets of a firm, which is closely related with product technologies, design technologies, process technologies and information technologies. In general, technological competences require a deep understanding of scientific principles, as well as the capabilities to generate new knowledge although they are different from science in that they are usually implicit in experience and skills (Dosi, 1988; Prencipe, 1997), which determine the technological feasibility of a firm to design, produce or upgrade its innovative products or services. In particular, technological competences represent an important potential source of competitive advantage in technologically competitive markets (e.g., Tyler, 2001; Wang and Lo, 2003). When aligned with customer demands, this potential source will become one of the most powerful tools for success.

Proposition 5(a): Technological competences contribute more to customer-focused performance in technologically competitive markets.

Marketing competences: As one more important constituent of core competences, marketing competences are defined as the processes designed to apply the collective knowledge, skills and resources of a firm to the market related needs of the business, which add value to its goods and services to meet the competitive demands of customers. Therefore, they are deeply based on a profound understanding of customers' current and future needs, preferences, factors affecting them and knowledge of competitors' possible action (Kohli and Jaworski, 1990; Dutta, Narasimhan and Rajiv, 1999; Slater and Narver, 1994). So there are two important elements of marketing competences in nature: competitor knowledge and customer knowledge and access, both of which are usually supported mainly by input assets, channel assets, customer

assets and market knowledge assets identified by Paul et al. in 1994.

In customer competitive environments, customers become the focus of competition and customers' demand keeps changing rapidly, which implicates that firms must put customer interests, customer current and potential demands first. With marketing competences in action, a firm shows a strong capability to sense events and trends in its rapid-changing markets ahead of its major competitors, and focuses its intensive efforts on understanding the market and on developing strategies in response to market opportunities or threats. It can anticipate more accurately the response to actions designed to retain or attract customers, improve channel relations or thwart competitors, and act on market information in a timely, coherent manner, which has significant implications for the attainment and sustainability of competitive advantage (Tyler, 2001). To help organizations deal with market events and trends, specific internal supporting processes can be developed to harness valuable data from customer surveys and other market research, to learn what buyers want, and to deliver the value they desire (Slater and Narver, 1994). This may include formal and informal approaches for gathering, processing, communicating and interpreting marketing information. Furthermore, related studies show that marketing strategy planning processes and the related value generating processes such as customer value delivery processes, mass customization process and integrated marketing process used to analyze and leverage market knowledge, are cited as being among the most important and being the most adaptable as market conditions change (Tuominen et al., 1997). Recently, Vorhies et al. (1999) identified six key elements of marketing competences that influence business performance, all of which play an even more important role customer in competitive environments (Wang and Lo, 2003). Therefore, we can make the following proposition:

Proposition 5(b): *Marketing competences contribute more to customer-focused performance in customer competitive environments.*

Integrative competences: Even though both unique marketing competences for understanding customers and markets, and technological competences for making innovative use of the new technological developments are strategically important, not all firms in possession of them can achieve above industry average performance (Teece, et al. 1997; Han, et al., 1998; Moenaert, et al., 1994; Mathews and Cho, 1999; Calantone, Droge and Vickery, 2002; Tyler, 2001). In practice, to compete successfully either in technologically or customer competitive environments, firms need one more constituent of core competences, that is, integrative competences. In fact, it is these competences that help to achieve the positive interaction among elements of the dynamic competence building and leveraging process, that enhance the strategic alignments and fitness among elements such as different constituents of core competences, organizational learning, strategic flexibility and turbulent environments, and finally determine the ultimate results of competition.

Given that core competences are complex, so the capabilities to weave the individual strands, both internal and external, into one complex thread requires a rich pattern of cross discipline communication and learning, which is very important strategically. Furthermore, as there is no value for customers if marketing competences or technological competences are isolated, it is vital for a firm to integrate both competences to reflect both customer demands and technological trends, and to use new technology to realize innovative services or products. In addition, since internalization of skills and knowledge gained from outside sources and their integration with internal resources has become central to a resource-based-strategy, integrative competences are playing a more and more important role. In turbulent environments, firms must analyze products and services beyond the industry boundary, especially those complementary to current offerings, define or even redefine the targeted customer segmentation, identify attributes whose performance is either beyond or under the standard level, and integrate them together to create new market-space continuously. In fact, integrative competences enable firms to combine the wide-ranging capabilities, information, perspectives and knowledge necessary to develop products or services in the market-space (Grant, 1996). Therefore, they are sometimes also called combinative competences, which often draw on firms' architectural competence (Henderson and Cockburn, 1994), organizational routines (Mathews and Cho, 1999; Calantone, Droge and Vickery, 2002; Tyler, 2001) or principles in order to create, transfer, and combine knowledge within and outside of firms. In addition, integrative competences enable the firms to generate new applications of existing knowledge (Kogut and Zander, 1992) and guide the problem-solving strategies that shape the development of new competence (Henderson and Cockburn, 1994). For

example, marketing competences are developed when the firm's marketing employees repeatedly apply their knowledge and skills to solving the firm's marketing problems, or creating unique combinations of intangible and tangible resources. Therefore, integrative competences have at least four implications: the ability of the firm to integrate different technological specialties, the ability to combine different functional specialties, the ability to exploit synergies across business units or divisions and the ability to integrate the whole dynamic competence building and leveraging process, which indicates the key role integrative competences plays in successful competition (Tyler, 2001; Wang and Lo, 2003).

Proposition 5(c): *Integrative competences are the key determinants of customer-focused performance both in technologically competitive and customer-oriented environments.*

Strategic flexibility

The increasing speed and cost of technological change, rapid shifting of customer preferences and market upheavals, discontinuous innovations, convergence of high-technology industries and emergence of new global competitors all promise an increasingly uncertain business environment. These dynamically interactive forces demand organizations to be not only efficient and innovative, but also to be strategically flexible. However, despite the increasing recognition of the importance of strategic flexibility as a new competitive advantage, there have been, to date, few influential studies empirically exploring the major dimensions of strategic flexibility or examining its relationship with business performance or competitiveness.

The term strategic flexibility has been widely used to denote a firm's capabilities to respond to various demands in dynamic competitive environments. Accordingly, research on strategic flexibility has ranged from limited empirical investigations of the relative flexibility of firms, to manage environment volatilities, to conceptual assessments of the degrees of freedom available to managers to do things differently. For example, Strategic flexibility has been defined by Aker and Mascarenhas (1984) as 'the ability of the organization to adapt to substantial, uncertain, and fast occurring environmental changes that have a meaningful impact on the organizational performance', which enables firms to manage uncertain and fast-occurring markets effectively. Harrigan (1985) studies the flexibility of alliances and vertically integrated firms and looks at strategic flexibility in terms of a firm's ability to reposition itself in a market or to change its strategies when its customers cease to be attractive. Bo Carlsson (1989) considers strategic flexibility as one of the three dimensions: operational flexibility, tactical flexibility and strategic flexibility, and argues that two aspects of strategic flexibility are particularly important. One is the way in which firms position themselves with respect to future changes in products and the concomitant changes in the manufacturing process, and the other is the attitude towards change and how that is fostered or encumbered by the organizing of firms. Evans (1991) studies the strategic flexibility in high technology product markets in a state of continuous flux and considers strategic flexibility as an expedient capability for managing capricious settings. Sanchez (1995) sees strategic flexibility as alternative courses of action or strategic options available to the firm for competing in dynamic market, which can bestow on a firm the ability to respond promptly to market opportunities and changing technologies. He (1995) also proposes models for strategic flexibility in product competition. Worren, Moore and Cardona (1999) make further study of strategic flexibility in the home appliance area, and note the effective ways of organizing for strategic flexibility. Ybarra and Wiersema (1999) look at strategic flexibility in information technology alliance through the perspective of both transaction cost economics and social exchange theory, and try to find the main determinants of two types of strategic flexibility, i.e., exit and modification flexibility.

In the studies mentioned above, flexibility is usually hypothesized to have a positive influence on competitiveness of a firm in unstable environments. In these environments, business units need to quickly adjust existing operations or strategic orientation to dynamic environmental changes such as frequent demand fluctuation and technological innovation. Strategic flexibility is also expected to increase the effectiveness of communication, plans and strategies, which, coupled with adapted product offering and other aspects of market mix, should create and deliver what customers really value and enhance the performance of a firm (Sanchez, 1995). Furthermore, Das (1995) concludes that strategic flexibility is the key to effective performance. Similarly, Hitt, Keats, and DeMarie (1998) disclose that success of firms in the 21st century will depend first on building strategic flexibility, which, interacting with core competencies, contributes significantly to business competitiveness. Besides, several studies also show that strategic flexibility helps to build and

upgrade core competences as well (Hitt, Keats, and DeMarie, 1998; Grewal and Tansuhaj, 2001; Wang and Lo, 2003). For example, when firms with high strategic flexibility respond successfully to the changing demand of customers, they can foster stronger capabilities to detect any new customer preferences, or upgrade their marketing competences during the interaction process with their customers. However, in stable environments, the impact of flexibility on competitiveness is hypothesized to be negative because business units may incur more costs than benefits by maintaining strategic flexibility. As a result of the above discussion, we can make the following proposition:

Proposition 6: *Strategic flexibility has a significant positive influence on core competences and customer-focused performance directly or indirectly in turbulent environments*

Organizational learning

Organizational learning was addressed by Cyert and March (1963) over 30 years ago as a process by which organizations as collectives learn through interaction with their environments. Members within the organization share information and create organizational memory in the form of shared beliefs, assumptions and norms, which guide individual and organizational actions. The ability for organizations to learn is determined by competences relevant to information processing, communication, knowledge transfer, inter-unit coordination, and the ability to develop trusting relationship and negotiation. In fact, it is one of the hallmarks of competence development for business to learn through repetition and doing (Grant, 1991; Prahalad and Hamel, 1990; Sinkula, 1994; Tuominen, et al., 1997).

It is clear that these competence building and upgrading processes require an understanding of the interaction of changes in one aspect of the environment with other aspects of the organizations, that is, organizational learning. By learning, we mean the acquisition, integration and application of new and unique knowledge through experimentation, improvement and innovation by ways of internal activities such as learning by doing, using, failing, and studying and learning outside in resource markets and product markets from customers, competitors, suppliers, technological sources and other key stakeholders. In practice, not only do firms seek specific information to remain competitive and maintain their core competences, they also need to learn how to acquire, process, store and retrieve information effectively and efficiently. This enables a firm to determine the information needed to upgrade, redeploy or reconfigure its core competences after continuous activities of careful environmental scanning and sensing. For example, it has been concluded that competences lie in the embedded knowledge and skills of a firm and are accumulated through the processes of continuous learning (Hamel and Prahalad, 1993), and also that the process of experimentation and improvement is the key to competitive success (Senge, 1990). Indeed, given the nature of the cumulative development of competences, their improvement requires continuous and collective learning. Therefore, learning is a process that allows a continuous adaptation of firm-specific competences in the light of experience and further information (Pavitt, 1990), and can be defined as the way firms build and supplement their knowledge bases in technologies, marketing, products and processes, and develop and improve the use of the broad skills of their workforce. It is no wonder that many researchers have drawn the same conclusion that, in today's knowledge intensive society, the only ultimate source of competitive advantages of any firm is to learn faster than its competitor. To keep competitive, firms must gather market intelligence, analyze and disseminate the marketing knowledge developed across departments and work groups, identify technological development trends and use them to develop appropriate strategies and tactics to combine both market knowledge and sensitive technological knowledge skillfully and timely. However, it is not enough for firms to compete successfully. To succeed, they have to meet the three requirements as follows; firstly, in the long run, firms must be able to learn at a rate at least equal to environment change if they are to develop and maintain core competences that have value in the market. Secondly, the rate of learning within an organization must be at least equal to that of competitors if changes in market performance are to be expected. Thirdly, the success of the learning activities should be addressed by performance measures (Prahalad and Hamel, 1990), which means that learning activities have influential impacts on business competitiveness. Only in this way, can businesses that possess the ability to learn rapidly about the changing environments and act quickly on them be best positioned to achieve competitive advantage. Just as Chaston et al. (1999) have noted that organizational learning functions as an antecedent of organizational competencies by nature. It brings employees and other resources together in repeated efforts, firms develop the processes upon which competences are built, and

employees continuously apply their knowledge and skills to operational or strategic problems. As a result, a deeper knowledge base develops, which enhances competences as well. Thus we can make the following proposition:

Proposition 7: *Organizational learning influences positively core competences of a firm.*

METHODOLOGY OF MODEL TESTING

In order to link the two major parts together, i.e. key determinants and customer-focused performance, and test the propositions mentioned above, data needs to be collected from two kinds of sources respectively in order to build structural equation models or conduct path analysis, so that all the relationships shown in Figure3 can be estimated and tested. On the one hand, data from the chosen firms is needed to test the interactive relationships among different key determinants. On the other hand, data from key customers is to be used for testing the interactive relationships among different components of customer-focused performance. However, the most important is that all the customers to be investigated in this study should be customers of chosen companies from which data concerning specific firms is derived in order to link and test the relationships among different determinants and components of customer-focused performance. For firm sample, it is better to ensure that both manufacturing companies and service firms are chosen randomly, and that one president, chairman or vice president from each selected firm is asked to complete the specifically designed survey instrument for the firm in order to compare the proposed relationships between the two major groups. For the customer sample, more than 20 main customers per firm, e.g., can be selected from the firm's key customer list based on certain criteria, and asked to complete the other specially designed survey instrument in order to collect data on customer-based performance. Table 1 provides a summary list of constructs and their proposed measures to be examined based on extensive literature review.

These data can then be processed and analyzed step by step, with the data analysis to proceed according to the two-step approach recommended by Anderson and Gerbing (1988). Firstly, the measurement model is estimated. In this study, the measurement model consists of nine latent factors described earlier. An assessment of the reliability, discriminant validity and convergent validity of these scales is included in the model assessment, especially for those newly developed scales such as core competences, strategic flexibility, customer sacrifice and customer value. Secondly, structural equation models representing a series of path relationships linking the four customer-focused performance constructs and their five key determinant constructs are to be developed. The path coefficients among those latent variables can then estimated by using AMOS, LISREL or PLS-graph.

IMPLICATIONS AND CONCLUSIONS

In this paper, we have proposed firstly that it is imperative for firms to give the highest priority to customer-focused performance, with the actual customer perspective as the focus, in order to achieve superior long-term performance and meet the interests of other stakeholders as well in today's turbulent environments. Then the paper tries to answer the question of how firms can achieve superior customer-focused performance. Despite a close relationship, there is an obvious research gap between what the resource-based view advocates, such as the sources of sustainable competitive advantages, heterogeneous resources and core competences, and what the service management view emphasizes, such as customer perceived quality, customer satisfaction and customer value. By bridging the gap and integrating these views, this study seeks to identify and recognize the key resource-based influencing factors of customer-focused performance, which consist of organizational learning, strategic flexibility and specific constituents of core competences. It is such key factors that determine customer-focused performance and sustainable competitive advantages of a firm in turbulent environments, which is beneficial to both researchers and managers.

The perspectives presented in this paper also highlight the need for thorough exploration of how organizational learning, strategic flexibility and constituents of core competences interact with one another dynamically to determine customer-focused performance. For example, what is the unique contribution and priority for each constituent of core competences, especially for firms with different environments, knowledge base or strategic orientation? Are these conditions all necessary for any firm to achieve superior customer-focused performance and sustainable competitive advantages? If not, which one is indispensable? Should integrative competences always be seen as the most important?

With the strong trend of outsourcing, alliances and networks, more and more firms focus on development of one type of competences and integrate it with firms that have complementary competences (Hagel, and Singer, 1999) by acquiring competences and knowledge outside. But how do firms decide which constituent of core competences to choose and how to integrate them effectively and efficiently? What are the differences between integrating the new internally developed competences and combining the new competences out of the firm's boundary? Additional research is needed on how to create infrastructure and systems that reflect new organizational forms or rapid information technology, and reward the management of strategic flexibility, organizational learning and competence building and leveraging.

In this framework, organizational learning, strategic flexibility and core competences are identified as central to achieving superior customer-focused performance and sustainable competitive advantages because they form the basis for the development of new products or services with superior attributes performance going beyond the threshold level and reflecting what targeted customers really value. However, other complementary capabilities, such as those in financial management or human resources, may be also necessary because they support or enable the firm to leverage or build its marketing competencies, technological competencies, integrative competencies, organizational learning activities and strategic flexibility (Argyris, 1990; Rucci et al., 1998). While most of these factors can be assigned to integrative competences and organizational learning capabilities theoretically, this may makes them too broad and complex to understand thoroughly.

Finally, challenges associated with exploring the wide range of research questions and managerial challenges that accompany the resource-based view are also significant. Measurement issues abound for both researchers and managers although much effort has been given to scale development. Managers have to identify and understand strategic resources and underlying knowledge in a firm if they want to make decisions that lead to superior customer-focused performance and sustainable competitive advantages. Given that core competences, organizational learning capabilities and strategic flexibility are all soft assets that do not appear on the balance sheet and are always dynamic, it is easier in theory than in practice. Clearly, significant studies are necessary to better describe and measure marketing competences, technological competences, integrative competences, organizational learning and strategic flexibility. Furthermore, the dependent variables in our model, components of customer-focused performance, also raise measurement problems. What should be included besides the four interrelated components? What reasonable weights should be given respectively to form a meaningful index? In fact, some of the measurement problems have already been discussed above in their respective parts. Furthermore, the intangible and dynamic nature of customer-focused performance, competences, organizational learning and strategic flexibility calls into question the current practices to assess them, especially if the firm's environments are full of complexity, unpredictability and dynamics. However, there are other difficulties in conducting such kind of research successfully. For example, before any data can be collected, researchers have to develop reasonable measurements with enough reliability and validity for the constructs concerned. In Table 1, we offer some possibilities that may spur the development of more meaningful measures of these constructs based on extensive literature review.

TABLE 1
Literature sources for different constructs and their measurements or scales proposed

Sources	Construct	Items or scales
Barney 1986, 1991; Prahalad and Hamel, 1990, 1994; Leonard-Barton, 1992; Lei et al., 1996; Bogner and Thomas, 1994; Grant, 1991; Hall, 1994	Core competencies	1. The competences of the specific firm can provide superior customer value 2. The specific firm has strong capability to support multi-market entry 3. The specific firm has strong capability to respond to customers' demand 4. The competences are difficult to imitate, copy, mobile or transfer
Grewal & Tansuhaj, 2001; Ybarra and Wiersema, 1999; Sanchez, 1995; Das, 1995; Aker et al., 1984; Carlsson, 1989;Evans, 1991; Hitt, et al., 1998; Worren, et al., 2002	Strategic Flexibility	1. Capability to build excess resources by hedging and sharing investments across business activities 2. Capability to derive benefits from diversity in the environment 3. Capability to redirect the strategic positioning quickly and effectively 4. Capability to redeploy strategic resources 5. Capability to respond to environmental changes such as customers' demands and competitors' actions
Buzzell and Gale, 1987; Lapierre, 2000; Miyazaki, 1994; Dosi, 1988; Tyler, 2001; Patel and Pavitt, 1997; Prencipe, 1997	Technology Competencies	1. The relative level of R&D investment when compared with the largest competitor 2. The technological strength when compared with the largest competitor 3. Employees' specialized expertise in the activity sector 4. The way employees use new technology to generate solutions 5. Ability to provide system solution in response to customers' problems
Han, et al., 1998; Moenaert, et al., 1994; Mathews and Cho, 1999; Calantone, Droge and Vickery, 2002; Tyler, 2001; Teece, et al., 1997; Kogut and Zander, 1992; Henderson and Cockburn, 1994	Integrative competencies	1. The specific firm benefits less from new offerings in the past 3 years 2. The specific firm rarely communicates and cooperates for new products/service design 3. The specific firm rarely shares information on customers and competitors' products/services and strategies 4. The specific firm rarely cooperates in evaluating and refining new product/service 5. Technological knowledge and marketing knowledge are never integrated in new product development 6. There is no functional integration in strategy
Jaworski and Kohi, 1993; Narver and Slater 1990; Moenaert, et al., 1994; Vorhies, Harker and Rao, 1999; Dutta, Narasimhan and Rajiv, 1999; Tyler, 2001; Kohli and Jaworski, 1990; Slater and Narver, 1994	Market-driven competencies	1. Customer knowledge process • The knowledge of customer needs is scant • The specific firm rarely uses research procedures such as personal interviews, surveys, focus groups to gather customer information • The specific firm casually processes and analyzes customer information • The specific firm seldom uses customers to

		test and evaluate new products/services • Customer information is barely integrated in new product or service design 2. Competitor knowledge process • The specific firm rarely searches and collects information about competitors, and their product/services • The specific firm causally analyzes information about competitors • Information about competitors' products/services is scarcely integrated into the product/service design • The knowledge about competitors' strength and weakness is scarce
McDougall and Levesque, 2000; Patterson and Spreng, 1997; Taylor and Baker, 1994; Gotlieb, Grewal, and Brown, 1994; Dabholkar, 2000; Oliver, 1977; Fornell, 1992	Customer satisfaction	1. The offerings always meet customers' expectation 2. The customer is extremely satisfied with the offerings. 3. Based on experiences with other firms, the customer is satisfied with the offerings. 4. The customer is very pleased with the offerings 5. The customer is delighted with the offerings
Slater & Narver, 1995; Sujan, Weitz and Kumar, 1994; SinKula, 1994; Tuominen, et al., 1997; Cyert and March, 1963; Sinkula, 1994;Senge, 1990; Pavitt, 1990	Organizational learning	1. Continuously learning of market and technological trends and change 2. Learning orientation 3. Benchmarking experience and alliance or network experience 4. Information sharing and utilization practices
Parasuraman, Berry and Zeithaml, 1985; Cronin and Taylor, 1992; Brown, Churchill and Peter, 1993; Oliver, 1993; Teas, 1993; Dabholkar, et al., 2000; Dabholkar, Thorpe and Rentz, 1996; Spreng and Mackoy, 1996; Taylor and Baker, 1994	Service quality	1. Modified SERVQUAL or SERVPERF 2. Outcome quality and process quality 3. Functional quality and technical quality
Sweeney and Soutar, 2001; McDougall and Levesque, 2000; Patterson and Spreng, 1997; Lapierre, 2000; Qiang Tu et al., 2001; Woodruff, 1997	Customer value	1. The specific firm offers good value for money 2. Considering the time, efforts, energy, and other non-monetary factors, overall the customer believe he/she received fair value 3. Taking what other competitors' product or service the customer has received, he/ she believes what the specific firm offer is worth
deRuyter et al., 1997; Ostrom, Amy and Iacobucci,1998; Cronin, et al., 1997 ; Lapierre, 2000	Customer perceived sacrifice	1. The customer has to spend more time and energy to get the offerings of the specific firm. 2. The customer has to spend more time and energy to learn how to use the offerings of the specific firm 3. The customer feels the price is too expensive

The critical nature of the research subject, crossing the boundaries of multiple academic disciplines such as technology and marketing, innovation and change management, strategic management, epistemology and psychology, necessitates the application of rich and diverse research methods for empirical testing required. A series of detailed empirical studies may provide other fertile contexts in which to test the dynamic relationships we propose and may also offer constructive insights into processes that high performance organizations employ to enhance and upgrade their dynamic competences and strategic flexibility. In this paper, we have integrated findings from a variety of disciplines to clarify and suggest relationships that may provoke thought and add value to studies concerning learning, knowledge management, competence-based competition, strategic flexibility and performance. We hope that the research presented here forms a basis for improved understanding of customer-focused performance and of related challenges faced by businesses and managers in the turbulent environments now and to come.

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