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Configuration of Market Oriented Culture, Organizational Structure and Business Strategy Types and Their Performance Implications in Service Organizations

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CONFIGURATION OF MARKET ORIENTED CULTURE, ORGANIZATIONAL STRUCTURE AND BUSINESS STRATEGY TYPES AND THEIR PERFORMANCE IMPLICATIONS IN SERVICE ORGANIZATIONS

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May 2008

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Abstract

CONFIGURATION OF MARKET ORIENTED CULTURE, ORGANIZATIONAL STRUCTURE AND BUSINESS STRATEGY TYPES AND THEIR PERFORMANCE IMPLICATIONS IN SERVICE ORGANIZATIONS

Omer Gokus
Old Dominion University, 2008
Director: Dr. Kiran Karande

Understanding how organizations in service sectors create and sustain a competitive advantage in today’s highly dynamic environment is of interest to both researchers and managers. It has been suggested that competitive advantages are achieved either by placing a renewed emphasis on delivering superior quality services to customers or by seeking efficiency through standardized practices aiming at the lowest overall cost for superior performance. This dissertation investigates how these strategies are implemented to produce enhanced organizational performance by utilizing both market oriented culture and organizational structure simultaneously. The model and the hypotheses are tested with data collected from 151 service businesses.

The study contributes to the market orientation literature by showing that for each strategy type (prospectors, defenders and analyzers) there is an ideal configuration of market orientation (customer orientation, competitor orientation, interfunctional coordination) and organizational structural characteristics (formalization, centralization, and specialization), that leads to a superior performance. For example, the ideal configuration for prospectors is high customer orientation, high competitor orientation, and high specialization. Also, the level of the type of
strategy used does not mediate the relationship between market orientation and firm performance. However, it does affect performance directly. Finally, it is found that environmental turbulence moderates the relationship between level of type of strategy used and business performance. However, environmental turbulence does not moderate the market orientation - strategy type relationship. Based on the study findings, managerial implications, limitations and recommendations for future research are discussed.
This dissertation is dedicated to

The Loving Memory of My Beloved Parents

Ismahan Gokus and Mehmet Gokus
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two boys Mehmet Kerem and Rahmi Erdem to inspire me. I believe the love of my wife and my kids made my life meaningful and gave me strength.
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CHAPTER ONE: INTRODUCTION

Marketing academics and practitioners believe that the marketing concept is a fundamental concept for both marketing thought and practice. The idea of the marketing concept is based on understanding the customers and satisfying them at a profit. Firms that adopt this philosophy and convert it to actions should see superior performance (Levitt 1960). Kotler (1991) also stated that the marketing concept is a market focused, customer oriented and coordinated integral effort aimed at generating customer satisfaction, and is the key to satisfying organizational goals. However, contrary to this belief, companies and academics had not fully practiced market orientation, which is the implementation of marketing concept, by late 1990s. Globalization, deregulations, and the emergence of more sophisticated customers have resulted in a more intense competitive environment. In this new environment, organizations realized the importance of customer satisfaction for competitive advantage and then organizations and academics rediscovered the market orientation as a tool for satisfying customers.

1.1 Purpose and Overview of the Study

Market orientation, an optimal management philosophy, has been studied only from conceptual perspective until 1990. Even though it has a strong argument as a normative statement, empirical support is necessary for the validation of this statement in positive sciences. This necessity drove academics to study market orientation empirically from different avenues. Studying market orientation from different perspectives is also necessary to establish its theoretical foundations. As Kuhn (1977) stated to purify a
paradigm and to dominate it to the entire scientific community, scientists need to study different dimensions of it and learn the details of the paradigm through studying its exemplars. Sheth and Sisodia (1999) also make a similar statement about theory development. They observe that, for a discipline to emerge, it is necessary for scholars to build conceptual foundations of phenomena by studying it from different perspectives and develop a theory that provides purpose and explanation for the phenomenon.

Over the years, marketing scholars have studied the theoretical foundations of market orientation. Scholars have studied 1) the conceptualization and measurement of market orientation (e.g., Narver and Slater 1990; Kohli and Jaworski and Kumar 1993; Deshpande, Farley and Webster 1993; and Matsuno, Mentzer and Mentz 2000), 2) the antecedents of market orientation (e.g., Kohli and Jaworski 1993; Pelham and Wilson 1996; and Matsuno, Mentzer and Mentz 2000), 3) the consequences of market orientation (e.g., Jarowski and Kohli 1993; Matsuno, Mentzer and Oszomer 2002), and 4) mediators and moderators of the market orientation—performance relationship (e.g., Grewal and Tansuhaj 2001; Han, Kim and Srivastava 1998; Noble, Sinha, and Kumar 2002; Slater and Narver 1994; and Im and Workman, 2004).

Despite the progress, several gaps in literature exist regarding the implementation of market orientation and market orientation—performance relationship, offering new avenues for future research (Kirca, Jayachandran, and Bearden 2005). Specifically, how market oriented culture, as an organizational resource, affects successful strategy
implementation leading to superior performance in a holistic view has not been studied so far. The necessity to examine this new area is raised from two main reasons.

First, although among the six highly quoted studies (Deshpande et al., 1993; Greenley, 1995; Han, Kim and Srivastava 1998; Jaworski and Kohli, 1993; Narver and Slater, 1990; and Im and Workman, 2004) only Narver and Slater (1990) found a positive association between market orientation and objective measure of performance (see Appendix 4); Kirca, Jayachandran, and Bearden’s (2005) meta-analysis study on market orientation supports the view that market orientation has a positive impact on business performance. Im and Workman (2004) also support this view by stating that “an accumulating body of research has established that market orientation leads to better performance” (p.114). But the necessity of the further studies to investigate the role of market orientation on performance, whether facilitative or causative, has been emphasized in literature. Deshpande and Farley (1998) stated that “… a closer look at

---

1 Although the influence of organizational culture on performance and the influence of strategy on performance have been studied broadly in isolation, as a specific type of culture-market orientation and strategy (and subsequently performance) link along with organizational structure has not been examined extensively in literature in an integrated model. After Walker and Ruekert (1987) have established the structure and strategy link in marketing, Vorhies and Morgan (2003) have extended this link by including task characteristics as behavioral variables. On the other hand, Dobni and Luffman (2003) and Matsuno and Mentzer (2000) have studied the market orientation and strategy link in isolation; however, they did not include structure as an organizational resource in their studies. Olson Slater and Hult (2005) filled this gap by studying structure, behavior and strategy in an integrated model.

2 This statement is supported by several scholars such as:

“Despite the soundness of its theoretical construct, the role of market orientation on firm performance, whether facilitative or causative, warrants further investigation” (Deshpande, Farley, and Webster 1993).

“Despite the importance of market orientation in the strategic management and marketing literature, and the importance of its assumed relationship with company performance, it has been the subject of little investigation” (Greenley, 1995).

“The interest in the assumed relationship between market orientation and performance ostensibly has remained steadfast for its apparent strategic importance” (Han, Kim and Srivastava 1998).
the results of the body of empirical research on the relationship between market orientation and performance reveals that the predictive power of market orientation is still an open question” (p. 242).

On the other hand, firm performance is mainly determined by implementation of a business strategy (Walker and Ruekert 1987). And implementing a firm strategy depends on how values and norms inside the organization (organizational culture) are developed for the specified strategy (Slater and Olson 2001). Kim, Han and Srivastava (1998) stated that market orientation remains incomplete without a mediator and practitioners do not understand the modus operandi that helps to achieve superior performance. Therefore market orientation should impact successful strategy implementation and then strategy as a mediator should determine organizational performance.

Second, while a mediator is necessary to clarify the market orientation - performance relationship, it is not sufficient from the standpoint of strategic management. Contemporary strategic view asserts that organizations must utilize not one (e.g. market orientation) but all of their resources for a successful strategy implementation (Lado, Boyd, and Wright 1992). Miles and Snow (1978) also stated that the organization is a “total system – a collection of people, structure, and processes that must be effectively aligned with the organization’s chosen environment.” (p. 6). What this means is that organizations need to integrate their available resources to adapt to their external environment. The direct indication of this is that scarce, valuable, and imperfectly imitable organizational resources are the only factors capable of creating sustained

While Im and Workman (2004) explain the necessity of innovation as a mediator between market orientation and performance connection, they imply that a mediator is required between the connections.
performance differences among competing organizations. Companies organize or configure those resources in a strategic manner that leads to superior performance.

In this dissertation, Day and Wensley’s (1988) source-position-outcome framework is used to provide the conceptual foundation for this assertion. According to this framework, organizations use two types of resources namely, culture and structure to implement a preferred strategy to achieve superior performance. In the present study, along with organizational structure, market orientation defined as “an organizational culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus continuous superior performance for the business” (Narver and Slater, 1990: p. 21) represents the cultural resources of the organization. These sources—organizational structure and market oriented-culture—determine the strategy type (i.e., position), which in turn leads to organizational performance (i.e., outcome).

Although Day and Wensley’s (1988) source-position-outcome framework is a useful tool to outline the basic relationships between company sources (structure and culture), position (strategy types), and outcome (performance), this framework does not explain how different dimensions of each variable are aligned to create superior performance for the organization. According to Webster (1997), the real challenge for managers is the alignment of the dimensions in ways that enable successful strategy implementation. The present study adopts the configuration theory (Cespedes 1991; Day 1997; Ruckert and Walker 1985) that suggests that for each strategy type, there is an ideal organization whose subsystems should match. In other words, organizations should construct their strategy in a way that each dimension of structure and culture has to fit
each other for superior performance. For instance, each dimension of market orientation will have a different effect on the three main strategies in a given structural context. More specifically, based on configuration theory, a specific strategy will lead to superior performance only if customer orientation, interfunctional coordination, and competitor orientation, which are dimensions of market orientation, are used with appropriate structural dimensions (i.e., centralization, formalization, and specialization).

The present study offers a theoretical model that not only examines the basic mediational relationships between market orientation, strategy types, and organizational performance but also specifies ideal configurations between individual dimensions of market orientation and organizational structure that are associated with a preferred strategic type.

1.2 Contributions of the Study

Although structural and cultural dimensions of organizations have been examined in isolation (Deshpande and Webster, 1989; Dobni and Luffman, 2003; Morgan and Strong, 1997; Walker and Ruekert, 1987; Vorhies and Morgan, 2003) they have not been studied in a combined model for successful strategy implementation. Since extant literature has not addressed how market oriented culture and organizational structure together shape business strategy that leads superior performance, the present study aims to contribute to the marketing literature as follows:

First, in order to shed more light on the relationship between market orientation and organizational performance, the present study offers a theoretical mediational model
in which organizational structure and market oriented-culture together impact organizational performance through its impact on three generic strategy types (see Figure 1). In this regard, the present study extends the previous research in two ways. It is the first study that uses all three generic strategy types together with multi-item scale (i.e., prospector, analyzer, and defender) as mediators in explaining the market orientation and performance relationship in a single study. Previous research has only focused on innovative capacity that is conceptually similar to the prospector strategy type as mediator of this relationship (Deshpande, Farley, and Webster 1993; Han, Kim and Srivastava 1998; Hurley and Hult 1998 and Im and Workman 2004). In addition, although previous research has studied structure-strategy type-performance relationships, they did not include market-oriented culture as another source that influences strategy types which in turn determines organizational performance (Walker and Ruekert, 1987; Vorhies and Morgan, 2003). The current study, however, as suggested by Day and Wensley’s (1988) source-position-outcome framework, examines two important sources—structure and market oriented-culture—together to explain how these sources impact strategy type and organizational performance.

Second, in addition to explaining mediational links between structure and market oriented-culture, strategy types, and performance, the present study aims to explain how different dimensions of market-oriented culture and organizational structure are configured to implement a preferred strategy type to achieve superior performance for the organization. This is a major contribution to the marketing literature because previous studies have treated market orientation as a one-dimension construct without specifically studying its separate dimensions and their impact on each strategy type. Studying
separate dimension of market orientation is consistent with the fact that companies tend to place greater emphasis on certain dimensions to be consistent with the other activities (Day and Nedungadi 1994). By separating market orientation into its individual dimensions and examining their relationship with each strategy type in a structural context might help us explain why previous research lacks empirical support regarding the relationship between market orientation and performance.

1.3 Plan of the Dissertation

The dissertation consists of five chapters with accompanying references, figures, tables, and appendices. The current chapter introduces the motivation and objectives of the study, a brief presentation of the proposed conceptual framework, and the intended contributions of the study. The second chapter introduces the nature of market orientation relevant research of market orientation and, related aspects of business strategy to set the background for the conceptual framework and research hypotheses. The third chapter reveals the design and methodology employed to test the hypotheses, including a description of the survey process and responding sample. The fourth chapter discusses the findings from the tests of hypotheses, discussion of the results, and the limitations of the study.
FIGURE 1.1: The Proposed Model of the Organizational Resources and Strategy Types Link

Sources

- STRUCTURE
  - Centralization
  - Formalization
  - Specialization

- CULTURE
  - Market Oriented Culture
  - Customer orientation
  - Competitor Orientation
  - Interfunctional Coordination

Action

- Strategic Emphasis
  - Prospectors
  - Analyzers
  - Defenders

Outcome

- Performance

Control Variables:
- Market Growth
- Supplier Power
- Buyer Power
- Easy of Entry

Environmental characteristics
CHAPTER TWO: THEORETICAL FOUNDATION AND HYPOTHESES

The theoretical framework used in this study investigates the effects of the various dimensions of organizational resources, specifically market orientation, on business strategy and organizational performance. Literature review is designed to provide direction for the research hypotheses. Like many societies, organizations have two fundamental resources, hard assets and soft assets (Kanter 1999). In business literature, these assets are very similar to organizational structure and organizational culture.

This chapter starts with a delineation of the organizational culture construct. After stating that market oriented culture is a dominant culture in organizations and its importance for the superior performance, this chapter explores the evolutions of marketing concept and its dimensions, and examines the different perspectives on market oriented culture.

Next, the configuration of organizational resources will be discussed in creation of competitive strategy (and consequently performance). Specifically, how the dimensions of market oriented culture aligned with organizational structure affect business strategy is discussed. Finally, the hypotheses of the study are offered.

2.1 Nature of Organizational Culture

To identify market orientation as an organizational culture, first we need to clarify the nature of organizational culture and then we need to discuss in what way market orientation is classified as a corporate culture in the literature.
Kroeber (1963) reviewed more than 164 different definitions of culture and found three elements of culture that cross definitions: (1) culture is shared by a group of people; (2) culture is learned; and (3) culture is passed from one generation to the next. These broad elements can be applied to define organizational culture but organizational culture is a deep, complex, and rich subject. And, scholarly researchers are struggling to develop a reasonable definition of the concept that facilitates studies of the formation and functioning of organizational culture. It is mainly because their assumptions about culture and organization are rooted in different disciplines –anthropology and sociology- (Schein 1985; Martin 1992; Smircich 1983).

The main difference between the approaches of the two disciplines is that in the sociology approach (modernist/functionalist perspective in specific), organizations are viewed as having cultures; whereas in the anthropological approach, organizations are viewed as being cultures (Hatch 1997). A direct implication of these different conceptualizations of culture is that the first approach views culture as a variable, and the second views it as a metaphor (Smirmich 1983).

Smirmich classified the metaphoristic approach in three categories, organizational cognition, symbols and meanings, and psychodynamic category. Shared points of those categories are that culture is not something an organization “has” but what it is. Additionally culture, as a metaphor, is a lens for studying organizational life as a whole. In this perspective, culture is a “pattern of development reflected in a society’s system of knowledge, ideology, values, laws, and day to day rituals” (Morgan 1997, p 120).

In contrast, culture as a variable is examined in the modernist/functionalist perspective (which falls in the sociological approach) views culture as a manageable
concept. Unlike culture as a metaphor perspective, the modernist/functionalist perspective claims that culture can be forced to change overtime. Furthermore, it can be measured and separated from other organizational variables in order to be used to predict outcomes (Hatch 1993; Smirmich 1983). In corporate business sense, the modernist/functionalist paradigm can be viewed from the two viewpoints.

The first viewpoint of modernist/functionalist perspective is rooted under classical management theory that sees organizations as mechanical processes. Organizational processes and its performance are shaped by external environment and industry characteristics under this perspective. Since this viewpoint perceives organizations as adaptive processes to their environment, it does not accept the existence of the concept of a unique organizational culture. But it recognizes the effects of national or industry culture on an organization. Thus, the term organizational culture on classical management theory refers to the national or industry culture (Smirmich 1983, p. 343). As a result, national or industry culture characterizes core beliefs and values within the organizations.

Since this viewpoint is widely used in cross-cultural and comparative management studies (such as Hofstede, Neuijen, Ohayv, and Sanders, 1990; Deshpande and Farley, 2004; and Pascale and Athos 1981), culture as a variable is exogenous to the organizations. Consequently, culture has been treated as an external environment variable and it has been widely used as a moderating variable in cross-cultural and comparative management studies.

The second viewpoint of modernist/functionalist perspective is rooted under contingency theory that considers organizations as organic processes. This viewpoint
considers organizations as adaptive organisms to their changing environment. In this adaptation process, organizations consciously and systematically develop some competencies or socio-cultural qualities, unique to organization itself (Burns and Stalker 1961, Lawrence and Lorsch 1967). These qualities or culture can make a difference from the other organizations in the process of adaptation to their environment. Thus, organizational culture is considered as an independent variable; endogenous to the organizations, consisting of beliefs and values developed within the organization over time (Deal and Kennedy 1982, Smirmich 1983).

In sum, the metaphoristic approach describes culture as a root metaphor for the organization itself. In this perspective, culture is not something an organization “has” but what it is. Since, the metaphoristic approach to culture is not related to our subject, it will not be discussed in detail. On the other hand, the modernist/functionalist perspective considers organizations as a process and culture as a variable. In the modernist/functionalist perspective, the first case which is rooted under classical management theory, considers culture as a part of environment and a determining force for organizations, such as national or industry culture. In contrast, the second case which is rooted under contingency theory, views culture as a result of human enactment. Since culture is manageable and organizations may have unique culture as opposed to industry culture, this dissertation will adopt second case for theory development and use it as an independent variable.
2.2 Market Orientation as an Organizational Culture

To classify market orientation as an organizational culture; first, we need to delineate the definition of organizational culture, and then discuss why market orientation can be classified as an organizational culture.

Schein (1985) presents a widely used view of culture that categorizes culture into three components. Those three components are, in decreasing order of visibility: (a) artifacts, (b) values, and (c) basic assumptions, which form the core of an organization's culture. Cultural artifacts can be viewed as the most physical creations of culture, examples include an organization's strategies and systems as well as employee behavior and language. The values of culture can be viewed as similar to beliefs with an "ought to" implication (Sathe, 1983). Examples of organizational values include orientations towards teams, outcomes and details. Assumptions are the most cerebral level of culture, those taken-for-granted premises which determine the more explicit system of meanings. Common organizational assumptions revolve around the organization's relationship to the environment: for example, that the organization is influenced by the environment and the organization has the ability to react to such pressures. Assumptions are more commonly known to marketers as managerial representations (Day and Nedungadi, 1994), that is, how executives make sense of the environment and events, or frames of reference (Sharma, 1994) which employees use to make sense of their environment.  

3 While Schein's conceptualization is commonly accepted, Hatch (1993) argues that Schein's model over-emphasises the components of culture and underestimates the processes which link the components of organizational culture. In fact, what is implicit to a distinguishable component conceptualisation of organizational culture (i.e. that culture is constituted of artefacts, values and assumptions) is the assumption that such components are linked by processes, (that is, the components of
Schein's model is based on functionalist perspective about culture. Thus, cultural elements can be separated from the whole organization and be studied. Schein (1987) defined culture as;

"a pattern of shared assumptions invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and therefore to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein 1987, p. 428)

This definition is directly associated with the idea that an organization is an open living system that performs the functions necessary for survival, particularly adaptation to a hostile environment and internal integration (Hatch 1997; Morgan 1997). This definition also implies that an organization is an interrelated subsystem attempting to establish consistent relationships between them (Morgan 1997).

While Schein recognizes the subsystems in organizations, he implicitly assumes that organizational culture is a unitary construct. Young (1989) and Martin (1992) disagree with this view. They assert that each subsystem must have its own cultural values. Pettigrew (1979, p. 574) also argues that "culture treated as a unitary concept ... lacks analytical bite". Thus, many theorists have developed pluralist perspectives of culture along with a variety of labels for the sub-divisions of culture, for example Ouchi's culture interact with each other). Hatch contends that the process plays a considerable role along with components in a formation of organizational culture.

Besides, the tradition of multiple views of organizational culture is furthered by Martin (1992) who identified three very different concepts of culture as integration, differentiation, and fragmentation. Martin examined the same company using these different perspectives.

Martin claims that studies of organizational culture can frequently be classified into one of three categories. In the integration perspective, culture is what people share, implying that there is an organizational consensus about certain important issues. The integration perspective would seem most appropriate for considering culture at the corporate level, from the point of view of top management. In the differentiation view, culture is what makes people different from one another, and can be the source of conflict within an organization, as seen in the tension between business functions such as marketing and engineering. In the fragmentation perspective, culture is multifaceted and ambiguous, neither a monolithic shared consensus nor a distinct set of well-defined viewpoints. Rather, in the fragmentation viewpoint, culture is a dynamic concept reflecting changes in group composition, fitted with organization structure, and the external environment.

While all three perspectives are always present simultaneously in organizations, usually studies either uncover or researchers adopt a single dominant perspective to the disadvantage of their understanding of the depth and complexity of the other two perspectives of that culture (Harris and Ogbonna 1999).
Utilizing Martin's (1992) framework, marketing theory on the content and processes of developing a market oriented culture should be based on integrative assumptions. Since integration perspective assumes that there is a shared meaning and corporate values for entire organization, the theory of market oriented culture can be extracted from integrative perspective. But, from Martin's point of view, employing one and disregarding other two perspectives for building a theory of market orientation will be incomplete because there are other subcultures exist and, there are complex and indistinct relations between subcultures.

Hence, Martin admits the view that the boundary of a culture is determined by the extent of shared meaning. Indeed, many organizational theorists would argue that without a shared meaning, a culture (be it unitary or pluralist) cannot be defined or distinguished (that is, it is the shared meanings of organizational members which defines culture) (Harris, 1998). Therefore, from the Martin's perspective, organizational culture can be viewed as a mosaic of subcultural shared meaning often with similar traits which is bounded by the frontiers of the organization. Thus, strong cultures with unified beliefs and artifacts can be viewed as a series of subcultures integrated by a dominant set of beliefs (Martin, 1992).

Consequently, in order to develop a view of a market-oriented culture which is consistent with contemporary organizational culture theory, we should recognize two concepts. First, organizational culture is not a unitary construct and it is a mosaic of subcultures. Second, as discussed above, Schein's components of culture should be recognized in any type of culture. From these two perspectives, we can conclude that
market orientation can be classified as the dominant subculture with shared values, attitudes and actions. Since a market-oriented culture is supposed to be organization-wide, "dominant" implies that the market-oriented subculture must dominate alternative subcultures (Whittington and Whipp, 1992).

Since the values of market oriented culture dominate the entire organization, the concept and importance of market orientation will be discussed in the next sections. But first, the evolution and recognition of dimensions of market orientation which is marketing concept will be delineated.

2.3 The Marketing Concept

Peter F. Drucker (1954) clearly stated that marketing was not only a functional responsibility but also a general management philosophy. The marketing concept must be embraced by the entire organization, not just one department. It is an organizationwide responsibility and goes beyond the duties of any one department. He affirmed that the purpose of a business is to create customers by giving them better value while considering the interests of other stakeholders. To do this, the marketing concept should permeate every department in a business.

Using his company as an example, Keith (1960) details how Pillsbury evolved through the acceptance of the marketing concept. It began to be accepted in 1950s, following the production era (1900-1930) and sales orientation era (1930-1950). The concept is distinct from the sales and production orientations by marketing department's interests in profit and return on investment. Awareness of the customer throughout the
process of planning, organizing, and executing marketing activities is the central pillar of
the concept.

**The Marketing Concept: development of customer orientation and
interfunctional coordination**

Felton (1959) emphasized the importance of the integration and coordination of
marketing concept. He stressed “the proper state of mind” that “insists on the integration
and coordination of all the marketing functions which, in turn, are melded with all other
corporate functions, for the basic objective of producing maximum long range corporate
profits” (p. 55).

Barksdale and Darden (1971) acknowledged the three fundamentals of the
marketing concept: 1) integrated marketing functions, 2) the customer as the focal point
for all business activity, and 3) profit as the criterion for evaluating marketing activities.
McNamara (1972) also defined the marketing concept as a business philosophy that has
to be first adopted before being implemented. He presented three pillars of the marketing
concept: 1) a company-wide acceptance of needs for a customer orientation, 2) profit
orientation, and 3) recognition of the important role of marketing in the corporation in
communicating market needs.

Bell and Emory (1971) however, argued for a guideline of priority among the
three principles (customer orientation, interfunctional coordination, and profit
orientation). Bell and Emory saw a conflict at times, especially between a customer
orientation and profit orientation, and argued that the customer orientation should
dominate the profit orientation. For the authors, the marketing concept had never been a
philosophical or moral concept but, an operational and utilitarian concept that guides
managers to look to the market for profitable business. It was argued that the customers’ welfare is not guaranteed as far as the profit orientation is an integral part of the marketing concept. They proposed profits as a consequence of satisfying the market’s needs and it is only an outcome not an objective.

The desirability of the marketing concept was still an issue as of 1981. Webster (1981) reported corporate executives’ concern about the marketing concept. Those executives interviewed by Webster indicated that the acceptance of the marketing concept as a management philosophy was incomplete, particularly in smaller, more technology oriented industrial firms. In those firms, Webster reported, “getting the marketing concept understood and accepted is still the biggest challenge” (p. 14).

Houston (1986) suggested that part of the reason for the difficulty of accepting the concept is misunderstanding and misuse of the concept over the years. He argued that the marketing concept had suffered in two ways; 1) it had been proclaimed as the optimal management philosophy when it is not necessarily so in all instances and 2) poor marketing practiced in the name of the marketing concept. According to him the important thing for organizations was to achieve their exchange determined goals most efficiently. The marketing concept may not always helpful for their goal achievement.

**The Marketing Concept: Development of competitor orientation**

So far, it appears from the literature that marketing concept can be classified into two categories; customer orientation and balanced conceptualization (Day and Wensley 1983). Day and Wensley (1983) point out the lack of consideration of competition in the marketing concept literature. Since more than one firm operates in the marketplace to satisfy customer needs, competition is inevitable. And they stated that the marketing
concept with more customer orientation is immature and simplistic. As an alternative paradigm, the authors introduced an integrative conceptualization of a customer orientation and competitor orientation. In this view, customer orientation should be put into the context of competition, because customers do not always know what their needs are due to limited imagination and dynamic nature of their needs. Since they are not totally satisfied, firms in the market will be in competition to give them better value. As a result, firms are not only monitoring their customers to satisfy their needs, they are also monitoring their competitors for better value.

In the late 1980s, another term started to be used interchangeably with the marketing concept- market orientation (Webster 1988). And in the early 1990s, starting with the empirical studies, the term market orientation replaced marketing concept term (Kohli and Jaworski 1990; Narver and Slater 1990).

2.4 Review of the Market Orientation Literature

Two seminal studies by Kohli and Jaworski (1990) and Narver and Slater (1990) have been the foundation for much of market orientation research that has been produced to date (Noble, Sinha, and Kumar 2002). Although both studies are closely related in sharing many underlying constructs and concepts, each advocates a different perspective. Gray, Matear, Boshoff, and Matheson (1998), Homburg and Pflesser (2000) and Noble, Sinha, and Kumar (2002) call these two perspectives as behavioral and cultural perspectives. While Kohli and Jaworski (1990) contend that market orientation is a behavior related to generation and dissemination of and responsiveness to market intelligence and they borrowed their theoretical reasoning from psychology, Narver and Slater (1990) accepts market orientation as an immutable part of an organization’s
culture, market oriented norms and values (Homburg and Pflesser 2000). Their theoretical background is rooted to sociology by looking at market orientation from cultural perspective. In the following sections, the behavioral perspective and the cultural perspective are delineated in detail.

2.4.1 The Behavioral Perspective

The behavioral perspective defines the market orientation construct as an organization-wide generation of, dissemination of and responsiveness to market intelligence (Kohli and Jaworski 1990). This perspective concurs that a firm’s degree of market orientation is a matter of choice and resource allocation (Ruekert 1992; Noble, Sinha and Kumar 2002). With proper resource allocation and single-mindedness market orientation can be achieved.

Kohli and Jaworski (1990) interpreted market orientation as the implementation of the marketing concept and offered a definition of a market orientation as:

“the organizationwide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and the organizationwide responsiveness to it” (pg. 6).

According to the behavioral perspective market orientation provides “a unifying focus for the efforts and projects of individuals and departments within the organization, thereby leading to superior performance” (Kohli and Jaworski 1990, p. 13). Intelligence generation, intelligence dissemination and responsiveness were identified as the three components of the market orientation construct.

*Intelligence generation:* Creation of intelligence includes not only customer’s verbalized needs and preferences but also analyzes exogenous factors affecting
customer’s needs. It also pertains not just current needs but to future needs as well. Marketing intelligence is generated through a variety of formal as well as informal means and may involve collecting primary data or consulting secondary sources. Importantly, intelligence generation is not the exclusive responsibility of a marketing department, but it should be generated collectively by individuals and departments throughout an organization (Kohli and Jaworski 1990, p.4)

*Intelligence dissemination:* Market intelligence must be communicated, disseminated, and even sold to relevant departments and individuals in the organization. For an organization to be effectively market oriented, responding to a market need requires the participation of virtually all departments on an organization. In disseminating market intelligence, not only informal “hall talk” is important tool for keeping employees tuned to customers and their needs but also horizontal communication, which is one form of intelligence dissemination within an organization, should be encouraged to coordinate people both within and between departments (Kohli and Jaworski 1990, p.5).

*Responsiveness:* An organization can generate intelligence and disseminate it internally. However, very little is accomplished unless it responds to market needs. Responsiveness is the action taken in response to intelligence that is generated and disseminated throughout the organization. Responsiveness to market intelligence, thus, involves selecting target markets, designing and offering product or services that are preferred by current and future customers, and producing, distributing, and promoting the products in a way that draws customer response (Kohli and Jaworski 1990, p.4).
In a later study, a scale for market orientation labeled MARKOR was developed by Kohli, Jaworski and Kumar (1993). The 32-item MARKOR scale was tested both on a single-informant sample, and a multi-informant sample. The researchers examined the effects of antecedents separately on the three components of market orientation as the same antecedent might have an opposite effect on different components (p. 54).

Antecedents of Market Orientation:

Jaworski and Kohli's (1993) classify the antecedents of market orientation into three broad categories: top management factors, interdepartmental factors, and organizational systems. Top managers shape the values and orientation of an organization (Webster 1988). As such, top management emphasis on market orientation has a positive impact on the level of an organization's market orientation (Day 1994; Narver and Slater 1990).

Interdepartmental factors include interdepartmental connectedness and conflict. Interdepartmental connectedness, or the extent of formal and informal contacts among employees across various departments, enhances market orientation by leading to greater sharing and use of information (Kennedy, Goolsby, and Arnould 2003; Narver and Slater 1990). Interdepartmental conflict, or the tension between departments that arises from divergent goals, inhibits concerted responses to market needs and thus diminishes market orientation (Jaworski and Kohli 1993).

The third set of antecedents, organizational systems, consists of two structural variables, formalization and centralization along with two employee-related systems, market-based reward systems and market-oriented training (Jaworski and Kohli 1993). Unlike current study, which consider structural variables as organizational sources along
with market orientation; Kohli and Jaworski (1990), representing behavioral perspective, regards formalization and centralization as antecedents to market orientation.

Formalization, which refers to the definition of roles, procedures, and authority through rules, is inversely related to market orientation because it inhibits a firms' information utilization and thus the development of effective responses to changes in the marketplace (Jaworski and Kohli 1993). Centralization, which refers to a limited delegation of decision-making authority in an organization, negatively affects market orientation, because it inhibits a firm's information dissemination and utilization (Matsuno, Mentzer, and Ozsomer 2002). Market-based reward systems use market-oriented behaviors as metrics to reward employees, thus motivating employee actions that enhance market orientation. Market-oriented training augments employees' sensitivity to customer needs, thus stimulating actions that are consistent with the requirements of market orientation (Ruekert 1992).

Similarly, the effects of the three components were assessed separately on proposed consequences. The results of the empirical study indicated that market orientation of a business was an important determinant of its performance, while there was no significant moderating effect of the environment in which the business operated (The scholars came up with a variety of moderating variables, which they classified into two groups: supply-side moderators and demand-side moderators. The supply-side moderators refer to the nature of competition among suppliers and the technology they employ. The demand-side factors refer to the nature of demand in an industry such as customer preferences or value consciousness). Although the results were positive for some of the performance measures, Jaworski and Kohli (1993) found no relationship
between their measure of market orientation and return on equity (ROE) or market share as performance measures.

The MARKOR scale was criticized in the literature for not being representative of the conceptual model. However, with Narver and Slater’s (1990) MRKOR scale, it has been one of the most influential scales in the market orientation research stream. It has been widely used not because it is a better scale, but its theory is well established compared to Kohli and Jaworski’s scale. Since Kohli and Jaworski just focused on the behaviors and systems of generating and disseminating information, their conceptualization is insufficient to reveal the breadth of an organization’s culture.

2.4.2 The Cultural Perspective

Although the behavioral approach to market orientation is very valuable, the cultural conceptualization has gained wide acceptance in the marketing discipline (Hunt and Morgan 1995; Hurley and Hult 1998; Han, Kim and Srivastava 1998; Hult and Ketchen 2001; Atuahene-Gima and Ko 2001; Noble, Sinha and Kumar 2002; Hult, Snow and Kandemir 2003; Im and Workman 2004). Organizational theorists contend that behavior itself is not a sufficient level to explain organizational disparities. In fact, organizational behavior literature’s main research area is to understand what the “rules” that guide behavior. The “rules” is about shared cognitions, systems of values and beliefs, the unique ways in which organization members perceive and organize their world (Weick 1985).4

4 Dickson’s (1996) approach for accepting market orientation, as a culture instead of behavior is much practical compared to theoretical one explained above. He stated that market orientation should not be imitated easily for sustainable competitive advantage, since behaviors can easily be imitated, while it is much harder to imitate a culture.
Consistent with organic organizational behavior theory, Deshpande and Webster’s (1989) approach to organizational culture is about shared assumptions and understandings of organizational functioning. Consistent with Schein’s definition, they define organizational culture as “the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them norms for behavior in the organization (p. 4)”. In that way, members of an organization understand why things happen and learn behavioral norms in the organization. Since values and beliefs are developed within the organization over time, it is considered as a resource endogenous to the organizations.

It is also clear that without an appropriate organizational culture, market-oriented behaviors would not be observed. This view was supported by Hurley and Hult (1998, p. 43) who stated that “…deepest manifestations of market…orientation are at the cultural level where over time, stories, reinforcements of behaviors, and the creation of organizational processes produce a basic assumption among employees that customers … are important.”

While organizational culture conceptualization is about shared assumptions and understanding about organizational functioning, it does not put any emphasis on organizational objectives. On the other hand, market orientation construct realize the importance of the values, shared assumptions and norms for an organization; at the same time market orientation put emphasis on the creation of the superior value to customers and achievement of sustainable competitive advantage. This statement is mainly supported by the definition of market orientation itself.
Narver and Slater (1990) defined market orientation as “an organizational culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus continuous superior performance for the business” (p. 21). The scale, MKTOR, they developed, was the first and most referred scale to measure market orientation from a cultural perspective.

Based on a review of previous literature on sustainable competitive advantage and the marketing concept, Narver and Slater (1990) delineated the market orientation construct as being composed of three components: customer orientation, competitor orientation and interfunctional coordination.

In Narver and Slater’s (1990, p. 21) conceptualization customer orientation refers to the firm’s sufficient understanding of its target buyers to be able to create superior value for them continuously. In Deshpande, Farley and Webster’s (1993, p. 27) study customer orientation was defined as “the set of beliefs that puts the customer’s interest first.” A customer-oriented culture fosters collection of intelligence about customers to create customer value. A customer-oriented firm closely monitors customers’ needs (Im and Workman 2004).

Competitor orientation is defined as an understanding of the strengths, weaknesses, capabilities and strategies of competitors (Narver & Slater 1990) as well as being responsive to the activities of competitors (Balakrishnan 1996). There are several reasons why a competitor orientation might assist company performance. First, an organization must not only consider how well its products suit customer needs but how well they perform relative to competitor products (e.g. Ohmae 1982, pp. 91–98). Second, competitors may sometimes be a source of good ideas for new products. Third,
understanding competitor strengths or strategies might help an organization to know which product markets or parts of those markets to enter or avoid (Porter 1979). Last, the actions of competitors may adversely affect an organization and a focus on trying to understand their strengths, weaknesses and strategies may allow an organization to prepare for competitor activity and so minimize its adverse effects (Dickson 1997).

The third component - *interfunctional coordination* - refers to coordination among different departments to create superior value for target customers (Narver and Slater 1990). Interfunctional coordination fosters greater communication, collaboration, and cohesiveness. It also coordinates the resources of the organization to combat competitors and to serve customers effectively (Narver and Slater 1990; Noble, Sinha, and Kumar 2002). That is, interfunctional coordination has strong relationships with the other components of market orientation - customer and competitor orientations.

### 2.5 Consequences of Market Orientation

Kirca, Jayachandran and Bearden (2005) organized the consequences of market orientation into four categories: organizational performance, customer consequences, innovation consequences, and employee consequences. The marketing strategy literature posits that market orientation provides a firm with market-sensing and customer-linking capabilities that lead to superior organizational performance (Day 1994; Hult and Ketchen 2001). Organizational performance consists of cost-based performance measures, which reflect performance after accounting for the costs of implementing a strategy (e.g., profit measures), and revenue-based performance measures, which do not account for the cost of implementing a strategy (e.g., sales and market share). In addition, researchers have also used global measures that assess managers' perceptions of
overall business performance, mostly through comparisons of organizational performance with company objectives and/or competitors' performance.

Customer consequences include the perceived quality of products or services that a firm provides customer loyalty, and customer satisfaction with the organization's products and services (Jaworski and Kohli 1993, 1996). Market orientation proposes to enhance customer-perceived quality of the organization's products and services by helping create and maintain superior customer value (Brady and Cronin 2001). Market orientation enhances customer satisfaction and loyalty because market-oriented firms are well positioned to anticipate customer needs and to offer goods and services to satisfy those needs (Slater and Narver 1994b).

Innovation consequences include firms' innovativeness; their ability to create and implement new ideas, products, and processes (Hult and Ketchen 2001); and new product performance (i.e., the success of new products in terms of market share, sales, return on investment, and profitability) (Im and Workman 2004). Market orientation should enhance an organization's innovativeness and new product performance because it drives a continuous and proactive disposition toward meeting customer needs and it emphasizes greater information use (Atuahene-Gima 1996; Han, Kim, and Srivastava 1998).

For employee consequences, Kohli and Jaworski (1990) argue that by instilling a sense of pride and camaraderie among employees, market orientation enhances organizational commitment (i.e., willingness to sacrifice for the organization), employee team spirit, customer orientation (i.e., the motivation of employees to satisfy customer needs), and job satisfaction. In addition, market orientation can reduce role conflict,
which Siguaw, Brown, and Widing (1994) define as the incompatibility of communicated expectations that hamper employees' role performance.

2.6 Market Orientation and Business Strategy Interface

Despite Drucker's (1954) established statement that customer satisfaction should be the concern for the whole organization and not simply restricted to the marketing function, the strategic management and the marketing concepts have not been studied together in the same context by the late 1980. Recently, however, several study streams have been arised to integrate business strategy and marketing concepts. These streams have mainly focused on studying comparative and competitive advantage (Day and Wensley, 1988; Hunt and Morgan, 1995), organizational structure and processes (Walker and Ruekert, 1987; Vorhies and Morgan, 2003) and organizational culture (Deshpande and Webster, 1989; Dobni and Luffman, 2003, Morgan and Strong, 1997).

Although the influence of organizational culture on performance and the influence of strategy on performance have been studied broadly in isolation, as a specific type of culture-market orientation and strategy (and subsequently performance) link along with organizational structure has not been examined in literature in an integrated model. After Walker and Ruekert (1987) established the structure and strategy link in marketing, Vorhies and Morgan (2003) have extended this link by including task characteristics as behavioral variables. On the other hand, Dobni and Luffman (2003), Matsuno and Mentzer (2000) and Slater and Narver (1993) have studied the market orientation and strategy link in isolation; however, they did not include structure as an organizational

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5 Matsuno and Mentzer's (2000) study on market orientation and strategy link falls short by two important ways. First, their strategy definition is grounded on classical management theory that does not comprehend today's complex organizations; second, their measure of market orientation is not widely accepted in literature.
resource in their studies. Olson Slater and Hult (2005) filled this gap by studying structure, behavior and strategy in an integrated model. Since importance of market orientation construct is well recognized among researchers and it is a research priority in marketing literature, the current study extends this research stream by including the impact of market orientation as a cultural variable along with organizational structure on strategy implementation.

As discussed in the first chapter, the market orientation-performance link, whether facilitative or causative, requires further investigation (Deshpande, Farley and Webster 1993). Market orientation consists of the pattern of shared values and beliefs, organizations' processes and actions toward market is dependent on those beliefs and shared values created inside the organizations (Morgan and Strong 1998). Those actions and processes is a key for forming business strategy in a way to improve performance (Day 1992). As a result, market orientation will impact successful strategy implementation and then strategy as a mediator determines organizational performance.

In this respect, Slater and Narver (1996, p. 59) assert that” understanding the link between market orientation and business strategy ... is important to our comprehensive appreciation of market orientation's contribution to organizational effectiveness'. Deshpande and Webster (1989) also observed the necessity to employ a particular strategy to make market orientation functioning. They stated that “ ... organizational culture reflect a motivation to understand culture as a lever or tool to be used by managers to implement strategy and to direct the course of their organizations more
effectively, to make culture and strategy consistent with and supportive of one another.” (p. 7).

Kohli and Jaworski (1993) supported this statement and discussed the necessity to consider ‘joint moderating effects’, or variables that may act in tandem. The importance of considering a market orientation in the study of strategy and performance has also been proposed by Deal and Kennedy (1982), Wilkins and Ouchi (1983), and Schein (1984). They postulated that organizational performance could not be accurately understood without an understanding of the culture and strategy of the organization.

In this vein, there are some recent efforts to examine the mediating effects as the missing link between market orientation and performance (e.g., Deshpande, Farley, and Webster 1993; Han, Kim and Srivastava 1998; Hurley and Hult 1998). These researches similarly examined innovation as a mediating variable between market orientation and organizational performance. But, as discussed both from organizational behavior perspective and strategic management perspective, market oriented culture should be directed or mediated by business strategy. To implement specific set of behaviors (strategy), organizations need specific values and norms created overtime toward market (market oriented culture). At this point one can discuss that innovation can be considered as a strategy. As Wind and Mahajan (1997) note, definition of innovation is confounded and it implies new product or services introduced into the market. Even if we consider that the innovative behavior shows strategic characteristics; in a broad term, innovation can only be regarded as only one type of strategy-prospectors. This dissertation studies
component of market orientation with not one but three generic strategies as Miles and Snow (1978) and Porter (1980) have stated.

Before we start to initiate the components of market orientation on generic strategy types in a holistic view, we need to explain the different views of strategy and then select one of them, which is appropriate for the purpose of this study.

2.7 Strategy Models:

In strategic management literature, there are two competing models of sustainable competitive advantage (and subsequently business strategy). One, developed by Chandler (1962) and Ansoff (1965), is considered as the foundation of strategic management. Their model is grounded in neoclassical economics (Chamberlin 1933; Freidman 1953) which is widely used in the industrial organization literature (Hill 1988; Porter 1980). The other is rooted in a resource-based view of the firm (Pfeffer and Salancik 1978; Lippman and Rumelt 1982; and Barney 1991).

2.7.1 Industrial-Organization Model:

The industrial-organization based model views competitive advantage as a position of superior performance that a firm achieves by offering low priced products or differentiated products for which customers are willing to pay a price premium. The reason is that the market or industry imposes selective pressures to which the firm must respond. Firms that can successfully adapt to those industry/market requirements will survive and grow, whereas those that fail to adapt, will exit from the industry/market.
Thus, in the neoclassical economic and industrial organization traditions, competitive advantage or business strategy is related to external characteristics rather than to the firm's peculiar competencies and resource-based deployments (Lippman and Rumelt 1982). In conclusion, strategy is formulated by the parameters of industry/market environment and preferred strategy modifies the necessary industry structure. It means that strategy determines structure in this perspective.

2.7.2 Resource-based Model:

This model also realizes the fact that organizations adapt to external environment for survival. Although organizations use similar rules and techniques for adjustment, their level of adaptation shows difference between organizations. This model suggests that these differences arise due to imperfections in markets for key production factors and/or various path-dependent, historical processes of learning and asset accumulation (Barney 1991, Lippman and Rumelt 1982). Its key insights are that scarce, valuable, and imperfectly imitable resources are the only factors capable of creating sustained performance differences among competing firms. Those resources are gained by managerial preference, organizational routines, reputation, and culture that guide organizational activities, process patterns and information accumulation systems.

In the resource-based model, the sources that are recognized as “distinctive competencies” give a firm an edge over its rivals (Barney 1986; Day and Wensley 1988; Reed and DeFillippi 1990). The distinctive competency perspective views an organization as a bundle of specialized resources that are deployed to create a market position for a better return. Unlike industrial-organization model, organizational activities and process patterns shape the organization itself in resource based model
(Pfeffer, 1982) and organizational resources play a major role in shaping business strategy.

Although Andrews (1971) realized the value of those intangible assets to organizations’ strategy implementation and call them distinctive competencies, Day (1990) conceptualized them as strategic capabilities. His definition of capabilities shows similarity with distinctive competencies. In his definition capabilities are “complex bundles of skills and accumulated knowledge that enable firms [or SBUs] to coordinate activities and make use of their assets’ to create economic value and sustain competitive advantage” (p 38). Thus, market oriented culture and capabilities both represent the intangible assets of organizations. Since market orientation is values and norms that guide behavior; and creations of capabilities are dependent on “... values and norms that define the content and interpretation of the knowledge” (Day 1990, p 39), therefore market orientation can be classified as an important organizational capability.

In conclusion, from the strategy perspective, market oriented culture is necessary but not sufficient for successful strategy implementation. Strategy implementation depends on the application of not only organizational culture but also all the organizational resources. Organizational resources are classified in two main categories – culture and structure. Therefore, organizations construct their strategy so that each dimension of structure and culture fit each other for a successful implementation of a strategy.

The classification of organizational resources into two categories has been studied by Bonoma (1984), Bonoma and Crittenden (1988) and Piercy and Morgan (1994).
sets of organizational resources that influence strategy implementation; structural variables and behavioral variables. Piercy and Morgan (1994) also stated that technical construction of different companies in a similar manner do not give similar outcomes because of behavioral differences among managers. As a result, behavior is a function of culture. Day (1990) also sorted resources as assets and capabilities, which are conceptually similar to the above classifications of Bonoma and Crittenden (1988) and Piercy and Morgan (1994).

Consistently, Day and Wensley (1988) developed a “source-position-outcome framework” which has been used by a large body of researches (Menon, Bharadwaj, Adidam and Edison, 1999; Mizik and Jacobsen, 2003; Dobni and Luffman, 2003). In the present study, Day and Wensley’s (1988) source-position-outcome framework is adapted as a theoretical framework. More specifically, market oriented culture and structure is identified as the source, strategy types are the position, and outcome is the performance.

This framework suggests that in order for organizations to successfully implement a strategy and achieve superior performance, resources should be organized in different ways depending on selected business strategy (e.g., Slater and Olson 2000; Walker and Ruekert 1987). On the other hand, organizing different recourses which have multiple dimensions, in a way that successfully enables business strategy implementation is recognized as one of the most difficult challenges facing managers (Cespedes 1995; Webster 1997).

The difficult challenges arise from two main reasons. First, the organization of market oriented culture and business strategy along with organization structure will be complex since each of them has multiple dimensions. Second, to reach sustainable
superior performance, strategy implementation requires organization of all resources simultaneously. Therefore, evaluating this relationship in these holistic terms requires a simultaneous assessment of the relationships between the many variables of structure, culture and business strategy (Walker and Ruekert 1987).

This simultaneous consideration of multiple dimensions of each construct requires the use of configuration theory. A configuration denotes a multidimensional constellation of the strategic and organizational characteristics of a business. As discussed in detail in next section, configuration theory suggests that for each strategy type, there is an ideal organization in which subsystems match. It means that its structural and cultural characteristics are constructed in a way that leads to superior performance (Cespedes 1991; Day 1997 Ruekert and Walker 1987).

2.8 Configurational Elements of Structure / Market Oriented Culture and Strategy Types

As illustrated in Figure 1, configuration theory suggests two major constructs that are relevant to understanding and assessing organization fit: business's strategic type and business's resources (culture and structure). In this section, strategy types and the business resource constructs are explained in detail.

Strategic type pertains to the planned patterns of organizational adaptation to the environment by using available resources through which a business seeks to achieve its strategic goals - often sustainable competitive advantage - (Conant, Mokwa, and Varadarajan 1990; Matsuno and Mentzer 2000).
Miles and Snow (1978) proposed a strategic typology interrelating organizational strategy and organizational resources within a theoretical framework of alignment. They identified three viable strategic types, which differ primarily in terms of product-market strategy choices. Prospector strategic types proactively seek and exploit new market opportunities and often experiment with responses to changing market trends. They aggressively compete on innovation, seeking first-mover advantages from developing new offerings and pioneering new markets. Defender strategic types focus more narrowly on maintaining a secure position in existing product-markets. They often compete through operations or quality-based investments that offer efficiency related advantages, rarely pioneering the development of new markets or products. Analyzer strategic types balance a focus on securing their position in existing core markets with incremental moves into new product markets. They compete by balancing investments in creating differentiation-based advantages with operating efficiency.

Before we continue any further, we need to point out that organizational adaptation to environment have been studied and classified differently by several researchers (such as Porter 1980, differentiation-low cost; Levinthal and March 1993, exploitation-exploration; Ettlie and Johnson 1994, focusing on customer-focusing on process; Rust, Moorman and Dickson 2002, revenue expansion-cost reduction; Mizik and Jacobsen 2003, value creation-value appropriation). Even though those classifications might have some differences in terms of project or firm level, Mizik and Jacobson (2003) and Kyriakopoulos and Moorman (2004) implied that they represent the process of organizational learning and are conceptually similar. As Levinthal and March (1993)

\footnote{A fourth strategic type, reactors, is also identified but is deemed not to be viable in the long run as it represents firms that have no clear or consistent pattern of behavior (McKee, Varadarajan, and Pride 1989).}
stated that organizational learning has been created by following either innovative or creative path, or efficient focused or process oriented path during the adaptation to environment. These two paths have been main course of the strategic typologies mentioned above.

Organizational resources shape the characteristics of organizations because they are the many important structural and cultural characteristics that together constitute the way activities are organized within the business (Day 1997). Although the construct has been introduced to the literature by Pugh, Hickson, Hinnings, and Turner (1968) and Aiken and Hage (1968), it has been improved and applied to marketing concept by Ruekert, Walker, and Roering (1985). The structural characteristics of an organization pertain to how activities, routines and related decision-making authority are arranged (Pugh et al. 1968, and Aiken and Hage 1968; Ruekert, Walker, and Roering 1985).

Although the literature identifies several different structural characteristics of organization, three have been viewed as particularly important in previous strategy research: centralization regarding the concentration of decision-making authority at higher levels of the business's hierarchy; formalization, which is the degree to which standardized rules and procedures proscribe how activities are performed; and specialization, which is the extent to which activities are narrowly divided into unique elements that are performed by those with specialized knowledge. Together, these structural characteristics indicate whether activities are arranged in a bureaucratic or an organic manner (Moorman and Miner 1997; Jaworski and Kohli 1993; Ruekert, Walker, and Roering 1985; Pugh et al. 1968; and Aiken and Hage 1968).
As explained in previous sections, this dissertation realizes that organization culture is not a unitary construct and there might be several subcultures in an organization. However, market oriented culture is used in this study as it is considered to represent the dominant culture in organizations that focuses on understanding customers’ needs and satisfying them at a profit. From the cultural perspective there is one multidimensional scale Narver and Slater’s 1990 scale, which is widely accepted in literature that has three dimensions namely customer orientation, competitor orientation and interfunctional coordination. Here we have to emphasize the fact that this study segregates components of the market orientation and relates them to the strategy types, since implementation of each strategy type is different. Desegregating market orientation into its core components is also consistent with the fact that companies tend to place greater emphasis on certain elements or dimensions of their external and internal environment to the exclusion of others (Day and Nedungadi 1994).

Customer orientation is the firm’s sufficient understanding of its target buyers in order to be able to create superior value for them continuously (Narver and Slater 1990). Deshpande, Farley, and Webster (1993, p. 27) define customer orientation as "the set of beliefs that puts the customer interest first.” Therefore, a customer-oriented firm can be defined as a firm with the ability and the will to identify, analyze, understand, and answer user needs. A customer orientation also helps the firm learn a large part of the market's technical issues and provides an evaluation of possible segments.

Competitor orientation can be defined as the ability and the will to identify, analyze, and respond to competitors' actions. This includes the identification and construction of competitive advantages in terms of quality or specific functionalities.
Also, successful firms select certain types of new products or new prices as a function of market competitive characteristics (Narver and Slater 1990).

Interfunctional coordination refers to the communications among the organization's different functions: "Organization must exchange with not one but several elements, each of which is itself involved in a network of interdependence, with its own domain and task environment" (Thompson 1967, p. 29). Organizational behaviorists view coordination and control mechanisms as part of organizational arrangements (Nadler and Tushman 1980). As a part of the arrangement, interfunctional coordination allows for communication and exchange between the firm's organizational units (Moenaert et al. 1994).

2.9 Organizational Resources Fit with Strategy Types

Scholars have used many different terms—including "match," "alignment," "congruence," "complementary," and "consistency"—to denote holistic (considering all factors) relationships between multidimensional concepts such as organizational resources and business strategy. Although each of these terms suggest different meanings and technical specifications, they are often used interchangeably (Zajac, Kraatz and Bresser 2000). To more precisely specify and assess such relationships, configuration theory-based studies draw on the well-developed literature regarding fit (as in the holistic study of the relationship between resources and strategy) (Doty, Glick, and Huber 1993; Venkatraman 1990).

Fit between the organizational resources of a business and its strategic type is viewed as a desirable state that leads to superior performance. And, implementing each
strategic type requires organizations to create different configurations of structural and cultural characteristics. Therefore, organization theory suggests that organizing business activities in ways that fit the business's strategic type is an important driver of performance outcomes (Vorhies and Morgan 2003; Olson, Slater and Hult 2005).

Furthermore, the resource-based view theory indicates that fit between organizational resources and strategic type may also exhibit the inimitability and nonsubstitutability characteristics identified as essential for sustaining competitive advantage. For example, if a firm's superior performance is driven by correct configuration with strategic type, it will be difficult for competitors to identify the source of the firm's performance superiority (Barney 1991). Even if identified as a driver of superior performance, the ability of competitors to distinguish precisely how this is accomplished is limited, making imitation difficult (Bharadwaj, Varadarajan, and Fahy 1993; Day 1994). In addition to being difficult to imitate, the literature suggests that there may be no substitute for organizational resources fit with strategic type in driving performance (Moorman and Rust 1999; Workman, Homburg, and Gruner 1998).

Therefore, the resource-based view theory suggests that ideal configuration of resources and strategy leads to superior performance and this can be sustained over time.

### 2.10 Hypotheses

In developing hypotheses of expected relationships between organizational resources, strategic type and its performance outcomes, this study draws directly on existing theory and empirical evidence when possible. As indicated in the previous section, although many studies have investigated structural characteristics of
organizations – performance relations (Ruekert, Walker, and Roering 1985; Workman, Homburg, and Gruner 1998; Vorhies and Morgan 2003; Olson, Slater and Hult 2005), and market oriented culture – performance relations (Kirca, Jayachandran, and Bearden 2005; Kohli and Jaworski 1993; Narver and Slater 1990); market oriented culture as a corporate culture and strategy type fit along with organizational structure has not been fully investigated empirically.

Recently, Olson Slater and Hult (2005) studied structure – strategy relations along with several behavioral characteristics that are conceptually similar to market orientation (i.e., customer, competitor, innovation, and cost control). The current study separates itself from Olson Slater and Hult’s (2005) recent study in several aspects. First, this dissertation involves market orientation, an important construct for marketing discipline, along with organizational resources and strategy configuration. Second, it uses Miles and Snow’s strategy typology, a well accepted and frequently used strategy framework in the marketing literature. Third, it utilizes an objective performance measure as well as subjective performance measures, since collecting data from the same source for independent and dependent variables is considered biased. Finally, the current study distinguishes different levels (i.e., low and high) of the two strategy types (i.e., defenders and prospectors) in studying their relationships with firm performance and market orientation.

2.10.1 The Ideal Fit of Organizational Resources with Strategic Type and Performance

As discussed in the preceding section, for each strategic type, an ideal organization exists in which the configuration of structural and market orientation
characteristics enables the implementation of the business’s strategy in a way that leads to superior performance. The following sections will introduce study’s hypotheses for each strategy type and its ideal configuration in relation to organizational structure and market orientation.

**Prospectors**

Prospector strategic types focus on entering unfamiliar new markets and attaining differentiation-based advantages (Miles and Snow 1978). Therefore, achieving required goals in implementing a prospector strategy involves performing many complex activities. Accomplishing these activities ideally requires specialized, decentralized, and informal marketing structures (Ruekert, Walker, and Roering 1985). In implementing prospector strategies, such organizational characteristics should be emphasized because they empower specialists to access to wide-ranging capabilities and provide them with decision-making freedom and work routine flexibility to use these capabilities to produce timely and innovative responses in their competitive industry (Vorhies and Morgan 2003).

Prospector strategic types proactively seek and exploit new market opportunities and often experiment with responses to changing market trends. They do this by analyzing, understanding, and answering user needs. Their main purpose is to increase satisfaction by giving better quality or innovative products (Miles and Snow 1978). For this reason prospectors need to have a high level of customer-oriented culture.

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7 While Ruekert, Walker, and Roering (1985) initiated specialization by adaptiveness by saying that “...greater specialization leads to greater adaptiveness, in that specialists understand problems more clearly, adapt more readily to changing conditions, and discover new ways of doing things (p.15), as explained before adaptiveness and prospectors represent the organizational learning process and conceptually similar.
Since competitive advantage is simply to beat the competition (Day and Wensley 1988), competitor orientation places a priority on the in-depth assessment of a set of targeted competitors. This assessment focuses on targeted competitors' goals, strategies, offerings, resources, and capabilities to identify, analyze, and respond to competitors' actions (Day and Nedungadi 1994; Porter 1980) and on the organizationwide dissemination of the information generated from this assessment (Kohli and Jaworski 1990). The logic behind competitor orientation is that customers do not always know what their needs are due to limited imagination and dynamic nature of their needs. Since they are not totally satisfied, firms in the market will be in competition to give them better value and whoever give them better value will be high performing firm. Firms are not only monitoring their customers to satisfy their needs, they are also monitoring their competitors for better value. As a result, high level of competitor orientation is necessary for selecting a particular strategy type that leads to competitive advantages in terms of quality or specific functionalities. In conclusion, not only do prospectors require high level of competitive orientation but also defenders and analyzers.

Prospector strategic types focus on quality of product or service, customer satisfaction and attaining differentiation-based advantages. Therefore, implementing a prospector strategy involves performing many complex marketing activities (McDaniel and Kolari 1987; McKee, Varadarajan, and Pride 1989). Accomplishing these activities ideally requires empowering employees and giving them the decision-making freedom and work-routine flexibility. Consequently, firms can monitor customers' needs and preferences closely and provide timely and innovative responses in dynamic product-markets (Walker and Ruekert 1987).
Schuler and Jackson (1987) define the characteristics of prospectors' functional groups as; a high degree of creative behavior, a longer term focus, relatively high level of independent behaviors, moderate degree of concern for process, a greater degree of risk taking, and, high tolerance for ambiguity and unpredictability. These characteristics make functions diverse and interrelated to each other in a complex way. Since diversity of functional groups is better for creating innovative ideas (Zaltman, Duncan and Holbeck 1973; Levinthal and March 1993; Damanpour 1991), interfunctional conflicts will be high in this type of organizations (Auh and Menguc 2004) as diverse groups hamper communication, coordination, collaboration, and cohesiveness. While Slater and Narver (1995) stated that people with different backgrounds are necessary to avoid learning traps and enhance learning of new information, Walker and Ruekert (1987) affirmed that prospectors will have high level of interfunctional conflict. And they supported their view by the statement that “… because of their broad product-market domains and their emphasis on new product and market development, prospector businesses often have a high degree of complexity and uncertainty in their operations. Consequently, functional managers face unfamiliar decisions without standing rules or operating procedures. Such complex and unfamiliar situations can result in substantial interfunctional conflict (p.26)”. Similarly, Williams and O'Reilly (1998) concluded that attempting high level of coordination between diverse groups impedes creative and prompt decision making, risk taking and leads to less than-desirable solutions.

In summary, superior performance is expected when prospectors’ organizational resources are arranged similar to those of the ideal profile in which dimensions of structure and market orientation are settled to fit the implementation requirements of the
prospectors' strategic type. More specifically, while a prospector's ideal structural configuration requires high level of specialization but low level of centralization and formalization, its market oriented culture configuration requires high level of customer orientation and competitor orientation and but low level of interfunctional coordination. Therefore, we hypothesize that;

\[ H_1: \text{From the organizational structure perspective, the performance of prospectors is positively related with specialization, and negatively related with centralization and formalization; from the market oriented culture perspective, the performance of prospectors is positively related with customer orientation and competitor orientation, and negatively related with interfunctional coordination.} \]

Defenders

A company following a defenders strategy type is to provide quality products or services at the lowest overall cost for superior performance. The emphasis for defenders is on efficiency through standardized practices, rather than on effectiveness that stems from flexibility. (Ruekert, Walker and Roering 1985). Therefore, implementing this strategy requires an organization to configure its activities in a routine way and with a narrow, less technically sophisticated production process (Ruekert and Walker 1987). In performing such routine activities, defenders should use highly centralized, formalized and unspecialized structures. Centralized authority structures provide control over the deployment of available resources and formalized work routines minimize errors in executing required activities (Ruekert and Walker 1987). Creating specialized structures with team workflows and developing a wide range of different activities are not likely to be efficient ways to implement this strategy (Vorhies and Morgan 2003; Olson, Slater and Hult 2005; and Conant, Mokva, and Varadarajan 1990).
From the market oriented culture perspective, defenders focus on the efficiency of the firm’s processes. The main objective is to increase the productivity by reducing the input (labor and materials) required to produce a unit of output. To do this, they need to have standardized practices with well-defined activities. Consequently, organizations will focus on internal processes, such as engineering and distribution, to reach their final goal which is reducing costs. On the other hand, since customer orientation requires many complex activities, decision making freedom and established values about work flexibility to identify customer interest continuously; high level of customer orientation is not desirable for defenders. Nevertheless, Walker and Ruekert (1987) state that defenders need to pursue an acceptable level of customer orientation to establish their less sophisticated product or service lines. Treacy (1995) support this view by stating that being defender does not mean they are not market oriented or they are not seeking customer satisfaction at all. At first stake, they need to understand “the needs and wants of their customers” which is being market oriented. Second they need to increase “the value of the service or product to customer” by decreasing cost. As a result, their level of customer orientation should be low for successful implementation of their defender strategy.

In addition, as explained previously, they need to have high level of competitor orientation. Since markets are not perfect in terms of production factors and asset accumulation, the only way to create competitive advantage with scarce resources is to perform better than competitors (Barney 1991).
Defenders concentrate on narrowly selected products or markets; they seek for achieving cost based advantages. Since they are under cost pressure all time, they need routine activities and focused functional groups (Ruekert and Walker 1987). To decrease operating loss, their functions should be highly interconnected to each other.

Schuler and Jackson (1987) describe the characteristics of defenders' functional groups as; well-established behaviors, relatively repetitive and predictable actions, short term focus, modest concern for quality, less autonomy, low risk taking activity, the output of one function is the input for another, and high degree of stability. These characteristics make functions similar, undiversified and homogeneous with simple and repetitive activities and this type of functional groups can be coordinated easily. The following theories also support this view; Byrne's (1971) similarity attraction theory suggests that people prefer similarity in their interactions. Likewise theories of selection (O'Reilly, Chatman and Caldwell 1991) and socialization (Van Maanen 1978) promote similarity in values and demographics as the basis for maintaining effective work environments. Thus defenders will have high level of interfunctional coordination.

In summary, superior performance is expected when defenders' organizational resources are arranged similar to those of the ideal profile in which dimensions of structure and market orientation are settled to fit the implementation requirements of the defenders' strategic type. More specifically, while a defender's ideal structural configuration requires high level of centralization and formalization but low level of specialization, its market oriented culture configuration requires high level of competitor
orientation and interfunctional coordination but low level of customer orientation. Therefore, we hypothesize that;

\[ H_2: \text{From the organizational structure perspective, the performance of defenders is positively related with centralization and formalization, and negatively related with specialization; from the market oriented culture perspective, the performance of defenders is positively related with interfunctional coordination and competitor orientation, and negatively related with customer orientation.} \]

**Analyzers**

Businesses pursuing analyzer strategies seek to obtain both cost and differentiation based advantages. Analyzers, given their hybrid nature, are more complex and balanced naturally. The key to success for analyzers is to bring out either improved or less expensive versions of products that prospectors introduced while defending core markets and products. These dual demands create a structural conflict, and Vorhies and Morgan (2003) note that analyzers require sufficient structural activities to perform complex tasks while minimizing resource commitments. As fast followers, analyzers may require informal and decentralized structures that are staffed by specialists to expedite the process of bringing their "new and improved" products to market and to avoid falling too far behind. However, as territorial defenders, analyzers must also control product development and delivery costs while focusing on a stable base of existing customers. This requires a more formal and centralized structure with fewer marketing specialists. Ultimately, these conflicts appear to offset the pull toward structural extremes.

Although Walker and Ruekert (1987) do not address the challenges that analyzers face, Miles and Snow (1978) provide considerable support for analyzers’ balanced
position. To accommodate both dynamic and stable areas of operation, Miles and Snow state (pp. 78-79) that analyzers will develop "[m]oderately centralized control systems." In addition, they note that to address the entrepreneurial problem, analyzers will create a "[h]ybrid domain that is both stable and changing," and to control costs and reap benefits, their "domain must be optimally balanced at all times between stability and flexibility."

Miles and Snow (1978, p. 78) conclude that analyzer firms "must not only locate new product or market opportunities but also promote the sale of the organization's traditional products or services." In addition, "[t]he dual nature of the Analyzer's technology allows the organization to produce familiar products or services efficiently while keeping pace with developments engendered by Prospectors" (p. 78). With respect to performance and structure, Miles and Snow observe (p. 80), "The Analyzer's dual technological core means that the organization can never be completely efficient or completely effective." Olson Slater and Hult (2005) stated that the inherent tension in the analyzer's entrepreneurial, administrative, and technological challenges suggests that there is no clear structural configuration for these firms.

Golder and Tellis (1993) suggest that analyzers can be as successful as early entrants or prospectors if they learn about the structure and dynamics of markets from early entrants' efforts and limit their new product introductions to categories that have already shown promise in the marketplace. To identify opportunities in dynamic market segments analyzers must closely monitor customer reactions and competitors' activities, successes, and failures. At the same time in stable markets, analyzers must coordinate
their functional units highly interconnected to control production costs. Thus, the configuration of organizational sources for an analyzer requires an ideal profile that is high on customer, competitor orientation and interfunctional coordination. Therefore, we hypothesize that;

\[ H_3: \text{Performance of analyzers is positively related with customer orientation, competitor orientation and interfunctional coordination.} \]
FIGURE 2.1
Internal Configuration of Organizations

Sources

STRUCTURE
Centralization
Formalization
Specialization

CULTURE
Market Oriented Culture
Customer orientation
Competitor Orientation
Interfunctional Coordination

Action

Strategic Emphasis
Prospectors
Analyzers
Defenders

Outcome

Performance

Control Variables:
Market Growth
Supplier Power
Buyer Power
Easy of Entry
2.10.2 A Mediator Effect:

Although Kirca, Jayachandran, and Bearden's (2005) meta-analysis study on market orientation supports the view that market orientation has a positive impact on business performance, this positive impact, whether facilitative or causative requires further investigation (Im and Workman 2005; Deshpande, Farley and Webster 1993).

As stated before, market orientation as an organizational culture, consists of the pattern of shared values and beliefs. An organization’s processes and actions toward market are dependant on those beliefs and shared values created inside the organization (Morgan and Strong 1998). Those actions and processes are a key for shaping business strategies that improve performance (Day 1994). As a result, market orientation will impact successful strategy implementation and then strategy as a mediator determines organizational performance.

To support the statement above, Slater and Narver (1996, p. 59) assert that”understanding the link between market orientation and business strategy ... is important to our comprehensive appreciation of market orientation’s contribution to organizational effectiveness’. Deshpande and Webster (1989) also observed the necessity to employ a particular strategy to make market orientation functioning. They stated that “... contingency management views of organizational culture reflect a motivation to understand culture as a lever or tool to be used by managers to implement strategy and to direct the course of their organizations more effectively, to make culture and strategy consistent with and supportive of one another.” (p. 7). Walker and Ruekert (1987) made similar statement and supported the view above by indicating that “...An improved
understanding of the organizational contingencies that influence the effective implementation of different business strategies...” (p.15).

Kohli and Jaworski (1993) supported this statement and discussed the necessity to consider ‘joint moderating effects’, or variables that may act in tandem. The importance of considering a market orientation in the study of strategy and performance has also been proposed by Deal and Kennedy (1982), Wilkins and Ouchi (1983), and Schein (1984). They postulated that organizational performance could not be accurately understood without an understanding of the culture and strategy of the organization. In the end, common acceptance in the literature is the fact that in achieving superior performance requires companies to implement the strategy that involves identifying and facilitating the behaviors, which are rooted in organizational culture. (Walker and Ruekert 1987; Mizik and Jacobson 2003; Dobni and Luffman 2001). Since market oriented culture as an organizational resource created overtime needs to operationalized by a strategy, it can be concluded that business strategy mediates market orientation performance relationship.

This statement will be articulated in the following three hypotheses designated for each strategy types. Organizations can follow different strategy types, and these strategy types, defenders and prospectors, occupy two opposite ends of continuum. Analyzers sit between these two extremes (Miles and Snow 1978, Shortell and Zajac 1990). This does not mean that market oriented culture is good for one type of strategy but not another. As Porter (1985, p. 24) point out “… culture can powerfully reinforce … a generic strategy, if the culture is an appropriate one. There is no such thing as a good or bad culture per se.” An appropriate market oriented culture can be achieved by emphasizing the
dimensions of market orientation differently for successful implementation of each strategy (Dobni and Luffman 2000).

For example market orientation facilitates the implementation of prospector strategy type because the two dimensions of market orientation, customer and competitor oriented culture, provide necessary values and norms for prospector strategies. Customer orientation places the highest priority on continuously finding ways to provide superior customer value. Since an increased commitment to customer orientation should result in increased boundary spanning activity (Han, Kim and Srivastava, 1998) which is required activity for prospectors, customer orientation should assist prospectors which their objectives are finding and exploiting new product and market opportunities (Conant, Mokwa, and Varadarajan 1990). Increased attention to competitor orientation plays an important role in implementing prospector strategies (Day and Nedungadi 1994). Because of prospectors’ proactive nature, competitor orientation is necessary for a timely response to cope with competitors actions and stay ahead of competition.

\[H_{41}: \text{For prospectors, the level of prospector strategy mediates the relationship between market orientation and performance.}\]

Market orientation will foster defenders strategy type because the two dimensions of market orientation, interfunctional coordination and competitor oriented culture, provide necessary values and norms for defender strategy type. Defenders main objective is to reduce costs through standardized practices. Since they do not pay much attention to the innovative ideas, they can create their functional groups in similar and homogeneous ways. This helps to increase the interfunctional coordination while
limiting the interfunctional conflict. All functions should be highly interconnected to
decrease defenders' operating costs (Ruekert and Walker 1987). Additionally, being
highly competitor oriented is necessary for defenders because competitors serve as a
benchmark against which prices, costs, and performance can be compared (Auh and
Menguc 2004).

$H_{42}$: For defenders, the level of defender strategy mediates the relationship between
market orientation and performance.

Values and norms of market oriented culture should deeply guide analyzers' activities. Because of their hybrid nature, analyzers seek both efficient and effective based advantages. To do these analyzers, in dynamic market segments, must closely monitor customer reactions and competitors' activities, successes, and failures. At the same time analyzers, in stable markets, must coordinate their functional units highly interconnected to control production costs (Golder and Tellis 1993).

$H_{43}$: For analyzers, the level of analyzer strategy mediates the relationship between
market orientation and performance.
FIGURE 2.2

Mediator Effect

Performance

Strategic Emphasis

Prospectors

Analyzers

Defenders

MARKET ORIENTATION
2.10.3 Component-wise Analyses:

Market orientation construct has been conceptualized into three components in the literature (Narver and Slater 1990). However, instead of examining each component separately, the studies have emphasized the combined effect of market orientation construct (Kirca et al 2005). Narver and Slater (1990) admit the fact that each dimension of market orientation should be studied separately, as implementing a specific strategy requires different configuration of each dimension on market orientation (Day and Nerungadi 1994).

Prospectors focus externally on customer perceptions and attitudes that will lead to more sales. Therefore, programs emphasizing prospectors address the issues that have the greatest impact on overall customer satisfaction (Miles and Snow 1978). High level of customer satisfaction can be achieved by emphasizing relatively more customer orientation than competitor orientation and interfunctional coordination (Slater and Narver 1994). As a result, effective implementation of prospector strategy, and consequently performance, needs more customer oriented culture or customer oriented values and norms compared to the other two dimensions of market orientation, competitor orientation and interfunctional coordination.

In the same vein, defenders focus on the efficiency of the firm's processes. Successful defenders tend to increase the productivity by reducing the input (labor and materials) required to produce a unit of output (Miles and Snow 1978). Their focus is internal and the goal is to reduce costs. They must have higher level of interfunctional coordination than the other two dimensions of market orientation, to increase efficiency.
and productivity by eliminating defects and unnecessary effort (Rust, Moorman and Dickson 2002).

Therefore, we hypothesize that:

$H_{51}$: For prospectors; the impact of customer orientation on prospectors' performance is greater than that of competitor orientation and interfunctional coordination.

$H_{52}$: For defenders; the impact of interfunctional coordination on defenders' performance is greater than that of customer orientation and competitor orientation.
FIGURE 2.3
Componentwise Relationships and Moderator Effect

Performance
Prospectors
Analyzers
Defenders

Customer orientation
Competitor Orientation
Interfunctional Coordination

Competitive Intensity
Market Turbulence

H51: a>b,c
H52: d>e,f
2.10.4 Environmental Moderators:

Prior research has acknowledged that external context can potentially moderate the extent of a market orientation’s effects on business performance (Greenley 1995; Kohli and Jaworski 1993; Narver and Slater 1994). Market turbulences and competitive intensity have been considered as external environments in major studies (Greenley 1995; Kohli and Jaworski 1993; Narver and Slater 1994; and Han, Kim and Srivastava 1998). Unlike strong contextual support for moderator effect, Jaworski and Kohli (1993) find no evidence of environment affecting the strength of the relationship. Kirca, Jayachandran, and Bearden’s (2005) meta-analysis study also did not support the moderating roles of environmental turbulence on the market orientation-performance relationship.

Instead of moderating role of environment on the market orientation-performance relationship, current study investigates if the environmental factors moderate the each dimensions of market orientation-strategy link. The rationale behind that, market orientation is a multidimensional construct and each strategy type emphasizes different dimensions of market orientation. In addition, this study explores if the environmental factors moderate strategy-performance portion of the postulated market orientation-strategy-performance chain.

Market Turbulence:

The turbulences in the market typically are generated by heterogeneity in the composition of customers and their preferences. If customer sets and/or their preferences in the market are unstable, there is a greater likelihood that the company’s offerings will become mismatched with customers’ needs over a period of time (Kohli and Jaworski
1990). As stated earlier, market orientation is a necessary organizational culture for successful strategy implementation.

Environment as a moderator of the relationship between dimensions of market orientation and performance for each strategy types: the role of market turbulence

In highly turbulent markets, the effect of customer orientation on prospectors will be stronger. The reason is that market orientation with customer emphasis is about market intelligence, which entails generation and dissemination of and responsiveness to market information (Kohli and Jaworski 1990). And prospectors compete on new offerings and focus on value creating activities; programs emphasizing prospectors address the issues that have the greatest impact on overall customer satisfaction or matching their offerings with customers’ needs (Matsuno and Mentzer 2000). Therefore, prospectors with superior market information or a highly market oriented culture will monitor customers’ needs and preferences closely and less likely to make mistakes about their offerings. Accordingly, in order to successfully implement a prospector strategy, organizations will more likely to depend on a customer oriented culture in a highly turbulent market environment.

On the other hand, in stable markets, customers’ preferences do not change very much and organizations’ offerings are likely to require relatively little modification in those markets (Matsuno and Mentzer 2000). In such an environment, organizations will place a greater emphasis on developing low cost related activities as opposed to developing customer sensing activities such as marketing research and innovation (Dobni and Luffman 2000). Defenders emphasize such activities by employing standardized practices to, routine actions and focused functional groups (Ruekert and Walker 1987).
To be successful and operate efficiently in low turbulent markets, defenders should be highly interconnected to each other.

Interfunctional coordination, one of the components of market orientation, fosters greater communication, collaboration, and cohesiveness (Narver and Slater 1990; Noble, Sinha, and Kumar 2002) that are essential for implementing a defender strategy type (Narver and Slater 1990). More specifically, in order to successfully implement a defender strategy, organizations will more likely depend on interfunctional coordination in a low turbulent market environment.

$H_6$: The greater the extent of market turbulence, the greater the positive impact of the relationship between customer orientation and prospectors' performance.

$H_{62}$: The lesser the extent of market turbulence, the greater the positive impact of the relationship between interfunctional coordination and defenders' performance.

Competitive intensity:

Competitive intensity can be defined as a situation where competition is fierce due to the number of competitors in the market and the lack of potential opportunities for further growth (Dess and Beard, 1984 and Zahra and Covin, 1995). In the intense competitive environment, a firm’s behavior will no longer be deterministic but stochastic as the behavior is heavily influenced by the actions and contingencies undertaken by competitors (Auh and Menguc 2005). As a result, increased intensity is reflected through tactics such as aggressive pricing and high level of advertising (Porter 1980).

Environment as a moderator of the relationship between dimensions of market orientation and performance for each strategy types: the role of competitive intensity
As stated earlier, in a less competitive environment, competitors do not have the capacity or resources to substantially alter the balance of power among the sellers. In such an environment, focusing on the customers' needs and wants and seeking superior customer value is most likely to lead to success (Slater and Narver 1994). Conversely, prospectors' success depends on the value creating and boundary spanning activities in this environment. Since only customer oriented values and norms provide prospectors to implement such activities, prospectors should highly emphasize customer orientation in less competitive environment. As a result, prospector strategy type and the level of customer orientation relationship will be stronger in less competitive environment compared to the high competitive environment.

On the other hand, defenders' focus is internal and their goal is to reduce costs by focusing on the efficiency of the firm's processes (Rust, Moorman and Dickson, 2002). To do this, they depend on highly interconnected functional units. In an intensely competitive environment, a high level of interfunctional coordination is required for defenders to perform activities such as aggressive pricing or promotions. As a result, defender strategy type and the level of interfunctional coordination relationship will be stronger in highly competitive environment compared to the less competitive environment.

H_{63}: The lesser the extent of competitive intensity, the greater the positive impact of the relationship between customer orientation and prospectors' performance.

H_{64}: The greater the extent of competitive intensity, the greater the positive impact of the relationship between interfunctional coordination and defenders' performance.
Environment as a moderator of the relationship between strategy and performance: the role of market turbulence

The strategy literature generally posits that strategy selection is conditional on how closely an organization is aligned with its environment (Hofer and Schendel 1978; Porter 1980). Since organizations may not be aligned their environment with the same level, same speed or same direction, there will be different types or different levels of strategy in the same environment. Furthermore the relationship between strategy and performance will be affected by the environment, the organization operates in. A review of two major studies in this relationship reveals that they have focused on environmental uncertainty defined in terms of stability -low market turbulence environment- (Frederickson 1984) or velocity -high market turbulence environment- (Bourgeois and Eisenhardt 1988).

In highly turbulent markets, composition of customers and their preferences change rapidly. If customer sets and/or their preferences in the market are unstable, there is a greater likelihood that the company’s offerings will become mismatched with customers’ needs over a period of time (Kohli and Jaworski 1990). In such environment organizations which develop capability to adapt rapid market conditions changes and capability to collect superior market information (McKee, Varadarajan and Pride (1989), will monitor customers’ needs and preferences closely and less likely to make mistakes about their offerings. Since only prospector strategy type carries such capabilities and characteristics such as competing on new offerings or focusing on value creating activities, prospectors are likely to be more strongly related to performance in turbulent markets than in stable markets.
On the other hand, in stable markets, customers' preferences do not change very much and organizations’ offerings are likely to require relatively little modification in those markets (Matsuno and Mentzer 2000). In such an environment, organizations will place a greater emphasis on developing low cost related activities for superior performance as opposed to developing customer sensing activities such as marketing research and innovation (Dobni and Luffman 2000). Since defenders emphasize efficiency through standardized practices to reach their goal of reducing costs of their offerings, defenders are likely to be more strongly related to performance in stable markets than in turbulent markets.

$H_{65}$: The greater the extent of market turbulence, the greater impact of the relationship between prospector strategy type and performance.

$H_{66}$: The lesser the extent of market turbulence, the greater impact of the relationship between defender strategy type and performance.

*Environment as a moderator of the relationship between strategy and performance: the role of competitive intensity*

As stated earlier, defenders’ focus is internal and their goal is to reduce costs by focusing on the efficiency of the firm’s processes (Rust, Moorman and Dickson, 2002). In an intensely competitive environment along with the lack of potential opportunities for further growth, organizations need to develop activities such as cost control, aggressive pricing or promotions. These activities can be gained successfully in defenders strategy type. As a result, level of defenders and their performance relationship will be stronger in highly competitive environment compared to the less competitive environment.

On the other hand, in a less competitive environment, competitors do not have the capacity or resources to substantially alter the balance of power among the sellers. In
such an environment, focusing on the customers' needs and wants and seeking superior customer value is most likely to lead success (Slater and Narver 1994). As prospectors' success depends on the value creating and boundary spanning activities, implementing a prospector strategy is desirable in less competitive environment. As a result prospectors are likely to be more strongly related to performance in less competitive environment than in relatively more competitive environment.

\( H_{67} \): The greater the extent of competitive intensity, the greater impact of the relationship between defenders and performance.

\( H_{68} \): The lesser the extent of competitive intensity, the greater impact of the relationship between prospectors and performance.

### 2.10.5 Environmental Context as a Driver to Market Orientation:

Our expectation is that market oriented culture affect the implementation of strategy, subject to environmental context such as market turbulence and competitive intensity. At the same time external environment can be a driver force for organizational culture, as stated at the previous chapter that organizational culture is the outcome of adaptation process of organizations to their changing environments (Deal and Kennedy 1982, Smirmich 1983). This process often leads to adaptation of either customer orientation or interfunctional coordination in creation of superior value for customers and subsequently superior performance for organizations (Day and Wensley 1988). In other words, external environments force organizations to emphasize one of two dimensions of market orientation – customer orientation, interfunctional coordination.

**Market turbulence:**

In highly turbulent markets, customers' needs and preferences are changing rapidly and organizations must pay attention to customer satisfaction. To satisfy
customers and match their offerings with customers' needs, organizations should be highly customer oriented. The reason is that market orientation with customer emphasis is about market intelligence, which entails generation and dissemination of and responsiveness to market information (Kohli and Javorski 1990). Customer oriented values and norms give ability to organizations to monitor closely customers' needs and preferences for timely response and less likely make mistakes about their offerings. Therefore, organizations tend to emphasize customer orientation in high turbulent markets.

In less turbulent markets, customers' needs and preferences are relatively predictable and the strategic emphasis is on the price (Porter 1980). Increased attention to innovation and new product development is not desirable in such environment. To compete in price sensitive environment, organizations must pay close attention to their operational costs. They cut down their costs by focusing on efficiency of their processes. Accordingly, efficiency is achieved by focusing on coordination of functional units. Therefore, in a process of creating market oriented culture, organizations must emphasize interfunctional coordination in less turbulent environment.

\[ H_{71}: \text{The more turbulent the market, the more emphasis is on customer orientation}, \]

Competitive intensity:

As stated before, organizations that can learn rapidly about their external environment and respond to that environment are positioned best for competitive advantage (Day 1991; Degeus 1988; Senge 1990). This learning process about external environment should be focused creating values and norms that value efficiency and cost reduction in the intense competitive environment, because a firm's behavior will no
longer be deterministic but stochastic as the behavior is heavily influenced by the actions and contingencies undertaken by competitors (Auh and Menguc 2004). And competitors actions are reflected through tactics such as aggressive pricing and high level of advertising (Porter 1980). Since highly coordinated organizations are successful to increase efficiency and reduce costs, high level of interfunctional coordination should be emphasized in intense competitive environment to perform such activities as aggressive pricing or promotions.

Focusing on the customers’ needs and wants and seeking superior customer value is most likely to lead success in less competitive environments (Slater and Narver 1994), since competitors’ actions do not affect substantially the market conditions and the balance of power among the competitors. The process of adaptation to less intense competitive environment, organizations develop values and norms that focus on customers’ needs and preferences or customer orientation. As customer orientation with value creating and boundary spanning activities leads to superior performance in this environment, less competitive environment drive organizations to emphasize customer orientation.

\( H_{72}: \) The more intensive competition in the market, the more emphasis is on interfunctional coordination.

2.10.6 Strategy Implementation in Different Levels:

Since this study analyzes strategy types in multiple levels, it recognizes that firms execute same strategy type in different levels (Woodside, Sullivan and Trappey 1999; Levinthal and March 1993). Such as, some prospector firms depend on innovation and seek customers’ preferences excessively. These types of firms involve many complex activities, decision-making freedom and work-routine flexibility to respond customers’
needs and preferences on a timely basis (Ruekert and Walker 1987). In such organizations it is very difficult to pursue cost reduction and internal process related programs (Treacy and Wiersema 1995). Other prospectors may also excel in innovation and differentiation, however, since they do not use prospector strategy in high level, their structural and cultural characteristics may allow them to pursue cost-reduction strategies and internal process to experience some cost benefits.

In the same vein, some defenders rely on exceptionally established routines and standardized internal process to achieve cost based advantage (Ruekert and Walker 1987). Since their functional groups are homogeneous with routine activities, very low level of autonomy and very low risk taking activities; it is very difficult for them to identify customers' needs and preferences (Treacy and Wiersema 1995). On the other hand, other defenders may not stress cost based values that much. Accordingly, those defenders' structural and cultural characteristics will not be very tight and may allow them to practice innovative behavior and customer oriented values in an acceptable level.

There are some dynamics in organizations that drive them to the extreme level of prospector or defender strategies instead of executing them at an optimal level. Levinthal and March (1993) call this “failure trap” for innovative organizations or organizations emphasize exploration in excessive level which they can be classified prospectors in this context. The reason to classify explorative organizations as prospectors is that the adaptation of those organizations to their environment and consequently the process of their organizational learning follow similar paths. As Levinthal and March stated sometimes explorative organizations or “prospectors in this case” turn into frenzies of experimentation, change, and innovation by a dynamic of a failure. Failure leads to
search and change, which leads to failure which again leads to more research, and so on. New innovative ideas and experimentations fail and are replaced by other new ideas and experiments. According to Levinthal and March, this pathology is driven by three fundamental concepts of organizational life. First, most innovations are not successful and unrewarding. Second, return from most innovations and differentiations are likely to perform poorly in the early stage until experience has been accumulated in using them. And third, aspirations adjust downward more slowly than they adjust upward. As a result of failure trap, prospector organizations can be driven to the extreme level of innovative and differentiated behavior. These organizations perform poorly since they lack of ability to execute necessary activities for organizing internal process and cost control (Kyriakopoulos and Moorman 2004).

In defenders’ case, returns of organizing cost based activities are more certain, closer in time and closer in space than are the returns of prospector’s activities (March 1991 - Although Levinthal and March discussed exploitative organizations and did not mention defenders, the same logic can be extended to the organizations using defender strategy type). Their previous application of defender related activities makes future activities even more efficient. As a result, organizations discover the short term advantages of the refinement of internal processes. As they develop greater and greater competence on cost control, they engage in that activity more and they end up excessive use of defender strategy (Levinthal and March 1993). Even though those activities increase the defenders related competence, they drive out customer sensing and innovative capabilities of the organizations. As a result, these organizations perform
poorly since they lack of ability to execute necessary activities for customer sensing and innovation (Aug and Menguc 2005).

As stated earlier, a market oriented culture is essential for organizations to avoid the failure trap because market oriented behaviors do not allow organizations to drive themselves to high levels of defender or prospector strategies. The following explains the rationale behind this assertion.

First, market orientation emphasizes a unifying belief that emphasizes serving and creating value for customers (Deshpande, Farley and Webster 1993; Homburg and Pflesser, 2000; Ruekert, 1992). The unified focus on customers mitigates the tendency to become very focused and rigid for defenders. These firms may therefore not lose touch with customers’ changing needs. In a market-oriented firm, customer focused goals pacify this tendency because they continually push organizational members to consider new customers and new ways of satisfying existing customers while they are pursuing defender strategy.

Therefore we hypothesize that;

\[ H_{01}: \text{For defenders, the higher level of market oriented companies will use lower level of defender strategy.} \]

Second, market orientation also emphasizes that a set of organization-wide processes involving the generation, dissemination, and responsiveness to intelligence pertaining to current and future customer needs (e.g., Kohli and Jaworski, 1990; Narver

\footnote{For example, Hummer SUVs are well built, luxurious and stronger than BMW SUVs, but Hummer SUVs have a terrible mileage records per gallon and priced very high compared to BMW SUVs. Since Hummer SUVs emphasize quality and customer perception at very high level, they did not pay enough attention to cost related activities. As a result, while BMW increase its market share, Hummer couldn’t stop the declining sales trend and had to lay off a large amount of its employees (Wall Street Journal, New York, Aug 25, 2004. pg. B.8)}
and Slater, 1990; Slater and Narver, 1999). Since market orientation points out to the importance of interfunctional coordination and internal process, it mitigates the tendency to neglect the potential of learning curve, standardized process and cost control programs for prospectors. As a result, prospectors will not follow very high level of differentiation and innovation based activities to pursue a limited amount of cost related activities.\footnote{For example People Express had low prices but a terrible on-time takeoff record. Or the Yugo cars that had been the lowest-priced car in America; but their level of quality were not acceptable (Treacy and Wiersema 1995). They disappeared quickly because they did not give better value to their customer. The reason was that they concentrated on costs and internal process at the high level. In pursuing high level of defender strategy, their structural and cultural characteristics weren't suitable to follow minimum level of customer oriented behavior.}

Therefore we hypothesize that:

\textit{H}$_{82}$: For prospectors, the higher level of market oriented companies will use lower level of prospector strategy.
3.1. Sample Selection and Description

The sample used for this study utilized major service industries for two purposes: (1) to increase the generalizability of the study findings (Baker and Sinkula 1999; Gotignon and Xuereb 1997; Olson, Walker and Ruekert 1995), and (2) to reduce industry specific biases (Olson, Walker and Ruekert 1995). As pointed by Gatignon and Xuereb (1997), the use of heterogeneous sample from multiple industries poses the risk of noise in the analysis due to possible cross industrial differences. As explained below in detail, this study employs similar industries from service sector to provide first, a greater degree of control over industry effects, and second, more consistent reference points.

3.1.1. Selection of Businesses/ Business Lines

For the purposes of the study, the sample was drawn from the service industries. Service industries generate over two-thirds of GNP and employment in developed countries and their importance is growing in developing countries (Asia Pacific Business Review, 2002). The importance of service industries is undeniable in the USA, since they account for 72 percent of GNP and 76 percent of employment (Van Egeren, O’Connor 1998).

Characteristics of the service industry make the market orientation an essential construct for most service organizations. The service industry has three distinct characteristics from goods industry- intangibility, heterogeneity, and inseparability. First, most services are intangible. Because they are performance rather than objects, precise
manufacturing specifications can rarely be set. Most services cannot be counted, measured, inventoried and tested. Second, services are heterogeneous. It means their performance often varies from producer to producer, from customer to customer, and from day to day. Third, production and consumption of many services are inseparable. Satisfaction occurs during the service delivery, usually in an interaction between the customer and employees (Parasuraman, Zeithaml, and Berry 1985).

Service characteristics of intangibility, heterogeneity and inseparability emphasize both the reduced emphasis on tangibles and the increased role of customers in the service process. Consequently, in service industries competitive advantage is less likely come from tangible factors, and is more likely to be derived from customer interaction related intangibles (Kaplan and Norton 2001). The importance of the customer interaction in the service industries suggests the need to develop close and trusting relationships to increase customer satisfaction, and such relationships are logically evolved by market orientation (McNaughton, Osborne and Imrie 2002). Since market orientation is about understanding customers’ needs and preferences and provides timely response for those needs, it makes important sense for service firms.

Market orientation is about enhanced market sensing and creating customer value. These subjects can only be gained by highly interaction of service employees with customers in service industries. On the other hand, there are wide range of service industries in terms of the degree of interaction and the degree of labor intensity (Schmenner 1993; Tinnila and Vepsalainen 1995; Silvestro, Johnston and Voss 1992). For the purpose of this study, only a carefully selected set of service businesses were represented in the sampling frame. For this selection, three major criteria were used:
businesses should require high level of customer interaction, (2) labor of intensity should be high in the business and, (3) businesses should not be prone to any monopoly power.

For the first two criteria, Schmenner (1993) classification has been employed. Schmenner created a two dimensional matrix that uses degree of interaction and degree of labor intensity for each line. Depending on the matrix, personal banking, restaurants and transportation comes the second highest in the matrix after professional service such as management consultancy and law firms. Later Tinnila and Vepsalainen (1995) classified service businesses by using the degree of contact time, the degree of customization, and the degree of employee discretion. In this classification, they put the hotels, transportation and rental businesses to the same categories with the businesses mentioned previous sentence.

Depending on those criteria, the sample covers four sets of service industries in the service sector: finance and insurance (NAICS 52), accommodation and food services (NAICS 72), transportation (NAICS 48), real estate and rental and leasing (NAICS 53) (see Appendix 3.1). As discussed above, these business lines are characteristically similar to each other in terms of high level of customer interaction and high level of labor of intensity (Tinnila and Vepsalainen 1995; Schmenner 1993). And it has been used by Bitner, Booms and Tetreault (1990) and Verma (2000) studies for the sample selection procedure. Characteristically similar industries do not increase industry effects while they enhance the generalization of our findings.

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10 In those service sectors, some business lines are excluded from the sample (see Appendix 3.2) since they did not respond to the three criteria that (1) businesses should require high level of customer interaction, (2) labor of intensity should be high in the business and, (3) businesses should not be prone to any monopoly power.
3.1.2. Sample Selection

The North American Industry Classification System (NAICS) were used in the selection of those qualifying service businesses that are represented in the final sample.

The first use of NAICS began in 1992, updated 1997 and 2002 (Mohr and Russell 2002). There are two main reasons of using NAICS instead of SIC. First, in the former U.S. industry classification system (SIC), many new economic activities especially new types of services raised from economic and technologic development were scattered around in different industries or they were thrown together in one of the miscellaneous SIC “nec” (not elsewhere classified) categories. Second NAICS has better definition, homogeneous grouping and finer delineation of services industries (Triplett 2002).

The companies in the sample frame were selected by using Corporate Affiliations database. Corporate Affiliations have been collecting company information for over 30 years in the U.S. They provide information of more than 11,000 parent companies, affiliates, subsidiaries, and divisions of our subject of two major NAICS. Their data is compiled, updated and verified with a direct phone call to each company. Therefore, their primary sources of data are insiders at the companies they list. They make over 600,000 calls annually to update the information of companies. In addition, they review 6,500 news sources daily to have corporate personnel and organizational changes (Corporate Affiliations is compiled by the LexisNexis Group).

Most of their company profiles include: (1) percentage of ownership, total employee, operating revenue, variant names, founded year, (2) contact information including: corporate mailing address, phone, fax, URL, general e-mail, (3) names, titles and e-mail addresses for key personnel, (4) place of incorporation and, ticker symbols
The sampling frame was identified through six database search criteria: First, the companies in the final pool will represent only those businesses specified on Appendix 3.1. The companies were identified through using the NAICSs of those businesses displayed on Appendix 3.1 as the search criteria. Second, the companies in the final pool were identified on the basis of their primary NAICS. Third, the companies in the final pool will include only those companies, which are subsidiaries of corporations. Headquarters of corporations were not being included in the final pool since this study is intended to be conducted at the SBU level. Fourth, annual operating revenue were used as the primary sorting criterion and employee size will be used as the secondary sorting criterion. In other words, the database sorts the companies first on the basis of their annual operating revenue in the descending order, and then it sorts them further on the basis of their employee size in the descending order. Thus, it was ensured that the final sample would include the companies in every size in terms of operating revenue and employee size. Fifth, the companies those have operating revenues greater than $5 million or employees greater than 25 were included in the final sample. Finally, the key words “marketing manager,” “marketing executive” and “marketing director” were used

11 A common misconception is that developing a market-oriented culture and engaging in market oriented behaviors must be expensive. The ability to engage in market-oriented activities is not solely the province of the large or rich firm (Leonard and Rayport, 1997). Jaworski and Kohli (1993) hypothesized that market share (a measure of relative size) and market orientation would be related. They found no significant relationship. Narver and Slater, (1990) found no evidence that large businesses are more market-oriented than smaller ones. Pelham and Wilson (1996) and Slater and Narver (1996) both found highly market-oriented small firms that were more successful than larger competitors.

Almost all firms begin life small and poorly endowed. Those that become very successful develop relationships with customers who can give them unique and valuable insights into market needs (Leonard-Barton, 1995; von Hippel, 1986). This is not to say that being market oriented is natural or easy. It simply need not be expensive or unavailable to small firms.
to identify those companies that display the contact information related to their marketing managers/ directors/ executives in their company record in the database.

The initial sample includes four groups of companies (finance and insurance companies - NAICS 52; accommodation and food services companies - NAICS 72; transportation-NAICS 48; and real estate and rental and leasing-NAICS 53) that were derived from the database using the six search criteria mentioned above and ordered on the basis of their annual sales and employee size from the largest to the smallest. The number of companies in first group is 1118, in the second group are 660, in the third group 126 and in the last group 76. A total of 1,980 companies will be in the initial sample. The pretest sample covered 30 finance and insurance companies and 20 accommodation and food services companies. Thus, a total of 50 companies were included in the pretest sample.

As annual sales of companies in each group vary to a great extent, a stratified sampling method used to select those companies included in the pretest samples. In stratified sampling process, subgroups or strata’s are created to make certain that each stratum is represented by an adequate sample size. Each stratum contains 132 companies ordered by annual sales. For each stratum created, a systematic random sampling process is used to select those companies included in the pretest samples.

For finance and insurance companies, the elements of the pretest (pilot) sample (n=30) were selected from the 10 finance and insurance service stratum. First, the sampling fraction numbers were calculated. Since 30/10 is 3; each stratum were represented by 3 companies.
The sampling interval is equal to 44 (132/3) for the ten finance and insurance service stratum. The order starting numbers will be 44th, 88th and 132nd. Every 44th, 88th and 132nd element were selected to be included in the pretest sample for each stratum.

For the accommodation and food service companies, the elements of the pretest (pilot) sample \((n=20)\) were selected from the 5 accommodation and food service stratum. First, the sampling fraction number was calculated. Since 20/5 is 4; each stratum were represented by 4 companies.

The sampling interval is equal to 33 (132/4) for the five accommodation and food service stratum. Every 33rd, 66th, 99th and 132nd element were selected to be included in the pretest sample for each stratum.

### 3.2. Pretesting

#### 3.2.1 Overview

Before I started the data collection process, I needed to answer three main questions. (1) Whether the specific dimensions of market orientation (customer orientation, competitor orientation and interfunctional coordination) and strategy types apply the same way in the service context, (2) if they apply, whether existing manifestations of each dimension apply in the service context, and (3), whether there are new manifestations of each dimension. To answer these questions and determine how market orientation manifested in the service sector (specifically finance and insurance companies - NAICS 52; and accommodation and food services companies - NAICS 72) in-depth interviews with managers in these service industries were conducted. The
following section provides a detailed explanation of the process of conducting these interviews.

In the first step, the wording of market orientation and strategy type scale items were examined and modified to reflect the study's focus on the service industries. For instance, in the market orientation scale the word “product” was replaced by “service” to better fit the purpose of the study. Appendix 5 indicates the list of prior research that used Narver and Slater’s (1990) market orientation scale adapted to service industries. For the strategy type scale, Conant, Mokwa, and Varadarajan’s (1990) 11-item scale to classify firms into strategic types has originally been created for service industries. This scale has been successfully applied elsewhere (e.g., Dyer and Song 1997, Lucas 1999, DeSarbo et al. 2004, and Moore 2005). Therefore, the only modification included the replacement of the phrase of “your HMO” by the phrase of “your service organization”.

In the second step, twelve in-dept interviews were conducted by managers representing various service industries. Initially, fifty managers from different states were contacted by telephone to ask for their participation. These managers were selected from the pretest sample which was created from the Corporate Affiliations Database. This attempt resulted in one complete telephone interview because many managers were unavailable, some were busy, and some just wanted to participate in the actual survey but not in the pre-test.

Later, I contacted the president of USA Alumni Association of School of Business and Political Sciences, Ankara University for help. After he e-mailed to around 300 members if they were eligible or they knew anybody who would be eligible to participate, I was able to interview seven more managers by telephone. Finally, four
additional managers were found by using personal contacts from several service industries.

The twelve managers I was able to contact had the following characteristics: These managers were from Pennsylvania (4), Virginia (3), New York (3), North Carolina (1) and California (1). The sample consisted of three sales managers, two marketing managers, two general managers, two retired managers with executive experiences, one supervisor, one superintendent, and one CEO. The respondents were from different service industries: restaurant (4); hotel & resort (3); fast food (1), catering (1), banking & insurance (3).

3.2.2 Procedure

In order to understand (1) whether the specific dimensions of market orientation (customer orientation, competitor orientation and interfunctional coordination) and strategy types apply the same manner in the service context, (2) if they apply, whether existing manifestations of each dimension apply in the service context, and (3), whether there are new manifestations of each dimension, the following procedure is used in the in-dept interviews.

Following a brief introduction about the research project, each respondent was told that different organizational cultures and business strategies were being investigated and their answers would assist in determining the applicability of these constructs in the service industry. The in-depth interview started by giving a brief description of customer orientation without naming the dimension itself, and then asked respondents if it was applicable in their organization and how it was applied. During the conversation if respondents did not mention any item, I gave the item and asked them if that item was
applicable. If the answer was no, I asked respondents whether they could see any practice of that particular item in the other service organizations in the same industry. I used the same procedure for the other items that they did not mention during the conversation. Finally, I asked them if they could think of other ways in which this type of organizational culture was manifested in their organization. This was done to see if anything had been left out in this particular dimension. If not, they were told that two other cultural dimensions will be examined and the above procedure was repeated for competitor orientation and interfunctional coordination. After the dimensions of market orientation were finished, the respondents were told that a new concept, the strategy type of their organization, would be explored. The same procedure was used to explore the applicability of the strategy type scale in the service sector.

Pre tests results are shown in Appendix 6. Based on the results of the pilot survey, few changes were made in the questionnaire.

3.3 Conducting the Survey

A cover letter including a link to web address of survey was sent via email to the marketing/sales or manager/director/executive from each selected company as an invitation. The letter briefly explained the purpose of the research and the importance of the manager’s participation in the survey.

The cover letter (see Appendix 1) briefly explained the general purpose of the research along with appeals for cooperation and assurances of anonymity (Ayers, Dahlstrom, and Skinner 1997). In the cover letter, it was indicated that the purpose of the current research was to examine organizational culture and its effects on performance in service companies. The respondents were also assured that “individual responses would
not be divulged and only aggregated data would be reported” (Sujan, Weitz, and Kumar 1994, p.41). In the cover letter, the participants were offered to receive a summary report of the research findings as a reward for their completed questionnaires or responses (e.g., Maignan, Ferrell, and Hult 1999). Following Homburg and Pflesser (2000) and Chandy and Tellis (1998), after the initial emails were sent, each respondent was called by the telephone. The respondent was kindly asked if he/she filled out the survey. If he/she has not completed the survey yet, the purpose of the research and the importance of his/her participation were reminded one more time. If the respondent agreed to participate or examined the survey package and decided to participate in the survey after the call, a second email was sent as a reminder.

3.4. Response Rates

A greater response rate to a survey results in more accurately estimated parameters that are representative of the main population sampled (Kanuk and Berenson 1975). In the current research study, a variety of methods were used in combination to increase response rate, speed, and quality. These methods are as follows: (1) Emails with a personal salutation (e.g., emails starting with "Dear Mr. Wright" rather than "Dear Manager." (2) indicating Old Dominion University’s association with the research study in the cover letter cover page, (3) offering a monetary incentive (i.e., lottery), (4) offering a brief summary of research findings for each complete and usable questionnaire, and (5) providing detailed contact information to respondents.

At the first stage, 630 of 1980 email have been returned as delivery failure for various reasons such as mailbox unavailability, denied access, user not known or server not found. Since emails were sent with return receipt, it has been realized that 278 emails
were deleted without being read by the respondent. During one week of emailing stage only 17 responses have been collected. At the telephone calling stage, around 1000 companies have been called by making average of 20 calls a day. During the telephone calls-stage, it has been experienced that many calls went either directly to the answering machines of the managers or to their secretaries. The secretaries usually did not let the caller to talk to the manager directly. More often they took the caller's contact information and message and told him that they would forward the information to their manager. Only 448 managers of those companies have been directly contacted and ask for participation. 231 of those managers did not want to participate. Only 217 managers agreed to participate or examine the survey package. A total of 158 questionnaires were returned entirely or partially completed. Only 151 of these questionnaires were usable. Of these businesses, 44 were pursuing a defender strategy, 60 were pursuing a prospector strategy, and 47 were pursuing ad analyzer strategy. The resulting overall response rate was approximately 18% percent. The overall response rate was calculated by dividing the number of responses that were received by the number of telephone calls that were made.

Given the facts that the subject matter and content of this survey were very specific and that the target respondents had to meet the certain criteria to be able to respond to this survey, the overall response rate of 18% percent is reasonable and acceptable. The sample size of this study is comparable to that of Moorman and Miner's (1997) study in which the suggested hypotheses were tested over a sample of only 92 firms. Additionally, Tabachnick and Fidell (1996, p.132) recommend a minimum sample size can be calculated by the formulas that are (N \geq 50 + 8m, where m = number of independent variables) for full testing, and (N \geq 104 + m) for individual testing.
3.5. Analyzing the Data

In this section, the results of the statistical analyses are discussed. First, the major characteristics of the sample are examined in greater detail. Second, the unidimensionality/multidimensionality, reliability, and validity assessments of the model constructs are done. Third, the hypothesized model is fitted to the sample data via post hoc analyses, and then the proposed hypotheses are tested and discussed. Finally, a multiple-group analysis is conducted to investigate the moderating effect of market turbulence and competitive intensity on various model links, and then the related hypotheses are tested and discussed.

3.5.1 Characteristics of the Sample

The size of the sample is 151. The sample covers four sets of service industries in the service sector: finance and insurance (NAICS 52), accommodation and food services (NAICS 72), transportation (NAICS 48) and real estate and rental and leasing (NAICS 53). This way they do not increase industry effects while they enhance the generalization of our findings.

The largest percentage (62%) of the companies included in the sample is accommodation and food services and banking and insurance companies. This group is followed by the companies that are classified as transportation with 14 percent, and real estate and rental and leasing with 4 percent. The sample appears to be biased toward the finance and insurance, and accommodation and food services.

The companies in the sample vary in terms of their size. In terms of the number of employees, most of the companies in the sample have employees anywhere between 25
and 100. This group represents 52 percent of the sample. Companies that have less than 25 employees (21 percent of the sample) are not more than large companies that have 100 or more employees with 31 percent.

In terms of the amount of annual sales, only 25 percent of the sample companies generate annual sales that is equal to or less than $5 million. This group is followed by the 21 percent group that generates equal to or more than $5 million to $25 million in annual sales, and the 22 percent group that earns equal to or more than $25 million but less than $100 million in annual sales. 13 percent of the companies in the sample generate between $100 and $500 million in annual sales. Only, 14 percent of the sample companies have the amount of annual sales that is more than $500 million. 5 companies, 3 percent of the sample, chose not to disclose their annual sales level due to their confidentiality concerns. In conclusion, the sample seems to be biased toward medium-sized companies. 88 percent of the companies in the sample have an annual sales figure that is between $25 million and $500 million.

The mean age of the sample companies is approximately 21 years. 20 years of age is the most cited age in the sample. The median age is 16 years.

The characteristics of the survey participants were evaluated on the basis of the following three criteria: (1) current job title, (2) amount of experience in the current position, and (3) amount of experience in the current business unit or company.

Large percentage of the respondents in the sample was CEO/President/Owner/Gen. Managers (35 percent). This was followed by marketing/sales directors and managers by 30 percent, six respondents did not disclose his/her job title. 9 percent of the respondent has assistant manager or assistant director
position. In many cases at the telephone call stage, secretaries of managers wanted the assistant managers handled the survey. The ‘others’ group include new product development managers, production/project managers, directors of a new business, business development managers, engineering or engineering project managers, directors of human resources, R&D directors, directors of technology development, and plant managers.

The respondents, on average, had approximately 4 years of experience in their current position and 7 years of experience in their current business unit or company. The respondents, on average, work in the same industry for 12 years.
Table 3.1
Characteristics of the Sample

n= 151

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<table>
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<th>Amount of Annual Sales</th>
<th>Frequency</th>
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<tr>
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<tr>
<td>≥ $25 million - &lt; 100 million</td>
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</tr>
<tr>
<td>≥ $100 million - &lt; 500 million</td>
<td>20</td>
</tr>
<tr>
<td>≥ $500 million - &lt; 1 billion</td>
<td>13</td>
</tr>
<tr>
<td>≥ $1 billion</td>
<td>7</td>
</tr>
<tr>
<td>Unknown</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondent's Job Title</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO/ President/Owner</td>
<td>22</td>
</tr>
<tr>
<td>Director-Marketing/Sales</td>
<td>21</td>
</tr>
<tr>
<td>Manager-Marketing/Sales</td>
<td>24</td>
</tr>
<tr>
<td>Coordinator- Marketing/Sales</td>
<td>10</td>
</tr>
<tr>
<td>General Manager</td>
<td>31</td>
</tr>
<tr>
<td>Supervisor</td>
<td>5</td>
</tr>
<tr>
<td>Asst. manager/Asst. Director</td>
<td>14</td>
</tr>
<tr>
<td>Others (Engineering, etc.)</td>
<td>18</td>
</tr>
<tr>
<td>Unknown</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of Businesses</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance and insurance</td>
<td>52</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>42</td>
</tr>
<tr>
<td>Transportation</td>
<td>22</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>7</td>
</tr>
<tr>
<td>Other service businesses</td>
<td>24</td>
</tr>
<tr>
<td>Unknown</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mode</th>
<th>Median</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Business Unit</td>
<td>20.57</td>
<td>20</td>
<td>16</td>
<td>18.99</td>
</tr>
<tr>
<td>Years in the Industry</td>
<td>12.33</td>
<td>5</td>
<td>8</td>
<td>11.26</td>
</tr>
<tr>
<td>Years in the Business Unit</td>
<td>6.86</td>
<td>3</td>
<td>5</td>
<td>6.24</td>
</tr>
<tr>
<td>Years in Current Position</td>
<td>4.19</td>
<td>1</td>
<td>3</td>
<td>4.98</td>
</tr>
</tbody>
</table>
3.5.2. Psychometric Analyses

Before proceeding with model fitting and hypothesis testing, the statistical properties of the model constructs including unidimensionality / multidimensionality, reliability, and discriminant validity were investigated. Prior to the assessment of the reliabilities of the model constructs, the unidimensionality / multidimensionality of all constructs were analyzed (Gerbing and Anderson 1988). In order to assess the unidimensionality / multidimensionality of the model constructs, each construct of the model was subjected to a principle component analysis (PCA) to verify a single or multiple factor structure. In the principle component analysis, varimax rotation and an Eigen value of 1 were utilized.

For market orientation and organizational structure, three factor structures were obtained in parallel with the related theories. For each dimension of market orientation, one factor structure was extracted. For the two dimensions of organizational structure, formalization and centralization, one factor was obtained for each. However, for the specialization dimension, two factors were extracted. Since the Eigenvalue of the second factors extracted were very small (1.026), it was considered to be ignorable. Table 3.2 presents the summary results of factor analysis of the scale items. In this table, the name of each construct, the number of items in the scale, the number of factors extracted, and the percentage of variance extracted during factor analysis are displayed.
Table 3.2
Summary Results of Principle Component Analysis of Scale Items

<table>
<thead>
<tr>
<th>Construct</th>
<th>Number of Items</th>
<th>Number of Factors Extracted</th>
<th>% of Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>15</td>
<td>3</td>
<td>69.06</td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>6</td>
<td>1</td>
<td>71.16</td>
</tr>
<tr>
<td>Competitor Orientation</td>
<td>4</td>
<td>1</td>
<td>63.51</td>
</tr>
<tr>
<td>Interfunctional Coordination</td>
<td>5</td>
<td>1</td>
<td>59.37</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>10</td>
<td>3</td>
<td>70.46</td>
</tr>
<tr>
<td>Centralization</td>
<td>3</td>
<td>1</td>
<td>81.13</td>
</tr>
<tr>
<td>Formalization</td>
<td>2</td>
<td>1</td>
<td>49.02</td>
</tr>
<tr>
<td>Specialization</td>
<td>4</td>
<td>1</td>
<td>51.93</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td>3</td>
<td>1</td>
<td>89.53</td>
</tr>
</tbody>
</table>

As the next step, the reliabilities of the model constructs were evaluated. Reliability for each construct was assessed using the coefficient alpha that was obtained using a reliability analysis in the SPSS package. The coefficient alpha of each construct was compared to the cutoff value of 0.70 suggested by Nunnally (1978). Formalization construct with three items were well below cutoff value of .70 (.38). As a result, one item dropped and coefficient alpha improved to .64. Specialization with four items was also below cutoff value of .70 (.67). As a result, one item dropped and coefficient alpha improved to .72. Table 3.3 displays the reliability estimates (Cronbach alphas) of the model constructs along with their standardized item alphas. As it can be seen from Table 3.3, most of the coefficient alphas are greater than 0.70 (Nunnally 1978).
Table 3.3
Reliability Estimates of Model Constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>.91</td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>.91</td>
</tr>
<tr>
<td>Competitor Orientation</td>
<td>.80</td>
</tr>
<tr>
<td>Interfunctional Coordination</td>
<td>.81</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>.68</td>
</tr>
<tr>
<td>Centralization</td>
<td>.92</td>
</tr>
<tr>
<td>Formalization</td>
<td>.64</td>
</tr>
<tr>
<td>Specialization</td>
<td>.72</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td>.94</td>
</tr>
</tbody>
</table>

3.5.3 Model Fit

The fit of the proposed model was evaluated using confirmatory factor analysis (CFA) in AMOS 4 (Arbuckle 1999). We evaluated the model fits using a series of indexes that Gerbing and Anderson (1992) suggest. In the model, there are 27 observed (measured) variables or indicators of latent variables, and 7 latent constructs or factors. All variables are dependent. This is an overidentified model with a degrees freedom of 303.
Figure 3.1
The Model of the Market Orientation – Strategy - Performance Linkage
Confirmatory factor analysis was run on the hypothesized full SEM (Figure 1). The model fit was found to be not good \( \chi^2 = 698, \text{d.f.} = 303; \ GFI = 0.73; \ IFI = 0.86; \ TLI = 0.83; \ CFI = 0.85; \ RMSEA = 0.09 \). The value of ECVI is 5.65. Post hoc analyses were conducted to obtain a better fitting model. In order to identify possible areas of the model misfit, the standardized residuals and modification indices were examined. The residual covariance matrix shows any discrepancy between the restricted covariance matrix, implied by the hypothesized model, and the sample covariance matrix (Byrne 2001). The magnitudes of the standardized residuals in the residual covariance matrix should be smaller than the cutoff value of 2.58 (Byrne 2001). By analyzing the standardized residual covariance matrix, and after several rerun to obtain the better fit, item number 9, 15 and 25 are dropped from the model. Then modification indices are controlled since the hypothesized model is modified on the basis of modification indices which is supposed to be larger than 10. In the modified model (Figure 2), the error terms err8 and err11 are correlated along with err19 and err20. The error term err8 is associated with the concept of competitor orientation while the error term err11 is associated with the concept of interfunctional coordination. Moreover error term err19 is associated with the concept of centralization while the error term err20 is associated with the concept of formalization.

The same procedure used in Model 1, is applied to estimate Model 2. The estimation of this model resulted in a \( \chi^2 = 435 \) with the degrees of freedom of 227. The fit between the model and the sample data was found to be good \( \ GFI = 0.81; \ IFI > 0.91 > 0.90; \ TLI = 0.90; \ CFI = 0.91 > 0.90; \ RMSEA = 0.078 < 0.08 \). The value of ECVI (3.87) improved and is less than the earlier ECVI value and less than those of the alternative models (saturated and independence models). This model was accepted as a final model. Figure 3.2 displays the output path diagram of the best-fitting final model.
Figure 3.2 The Final Model of the Market Orientation – Strategy - Performance Linkage
3.5.4 Hypotheses Testing

3.5.4.1 Results for the Ideal Fit of Organizational Resources

Hypotheses H₁ H₂ and H₃, about configuration in relation to organizational structure and market orientation, are tested using ordinary least squares regression within subgroups. Although the model fit is developed by using Structural Equation modeling, the limited number of sample size within subgroups did not make possible to use the same procedure. Tanaka (1987) suggested that a sample size of 100 is a lower bound for MLE which is a parameter estimation procedure in SEM.

Hierarchical regression analysis is used to determine the relative impact of the cultural and structural variables on performance with respect to strategy type after controlling the market structure. In the hierarchical regression analysis, the control variables - buyer power, supplier power, easy of entry and market growth rate are entered in step 1; cultural variables - customer orientation, competitor orientation and interfunctional coordination – are entered in step 2; and structural variables - centralization, formalization and specialization – are entered in step 3. Control variables were not significant predictors of performance for three subgroup models (only one β was significant out of twelve in three subgroups analyses). There were no significant variations in either direction of the relationships or the regression coefficients of independent variables when control variables were excluded from the model. This suggests that the model would not be underspecified if they are dropped from the analyses. Therefore, the control variables are dropped from further analysis.

Since the data collected for this study uses a cross sectional design with key informant’s self report measures, presence of multicollinearity needs to be tested. The
level of intercorrelations among the independent variables in the regression models generally is low to moderate for three subgroups (for analyzers they are all below .50 except three intercorrelations; for prospectors, they are all below .50 except two intercorrelations; and for defenders, they are all below .50 except two intercorrelations). This could be a signal the possible presence of multicollinearity. Variance inflation factor (VIF) is calculated for each of the regression coefficients. The VIF provides information on the extent to which nonorthogonality among independent variables inflates standard errors. The VIF ranges from 1.25 to 3.62, well below the cutoff of 10 recommended by Neter, Warresaman and Kutner (1985, p.32). This finding suggests that multicollinearity is not a likely threat to the substantive conclusions drawn from the parameter estimates.

**Prospectors:**

From the organizational structure perspective, the performance of prospectors is positively related with specialization, and negatively related with centralization and formalization; from the market oriented culture perspective, the performance of prospectors is positively related with customer orientation and competitor orientation, and negatively related with interfunctional coordination.

A positive effect of customer orientation is found ($\beta = .53$, $p < .01$) on prospectors performance (see Table 3.4). Interfunctional coordination is not significant but its sign is negative as anticipated. Structural variables, centralization and formalization are positive and non-significant that they were not predicted. Although specialization is not significant, its sign is positive in parallel with this study’s prediction.
The results also show a negative effect of competitor orientation ($\beta = -.116$) that was not expected. Further analysis shows that the relationship among performance, customer orientation and competitor orientation are affected by suppressor effect. Conger (1974 p.36) provides the most generally accepted definition of suppressor variable "a variable which increases the predictive validity of another variable by its inclusion in a regression equation" where predictive validity is assessed by the magnitude of the regression coefficient. Thus, a situation in which the magnitude of the relationship between an independent variable and a dependent variable becomes larger when a third variable is included would indicate suppression. In our case, when competitor orientation is entered alone to the model, it is positively correlated with prospectors' performance. When competitor orientation is introduced to the model as an independent variable, the sign of competitor orientation becomes negative while the magnitude of the relationship between customer orientation and performance becomes stronger. This concludes that competitor orientation is suppressing the error variance in customer orientation rather than explain much about performance (Cohen and Cohen 1975, p.91). The appropriate conclusion is that competitor orientation has a positive but nonsignificant effect on prospectors' performance. Therefore $H_1$ is partially supported.

The significant and positive result indicates that prospectors are highly depended on customer orientation in their configuration of organizational resource for superior performance. As stated previously, their main purpose is to increase satisfaction by giving better quality or innovative products (Vorhies and Morgan 2003). Focusing on customer is the best way to achieve this objective because customer orientation facilitates to analyze, to understand, and to answer user needs.
Table 3.4
Regression Results of Organizational Resources Fit with Strategy Types:
Performance of Business Strategies

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Prospectors (n=60)</th>
<th>Defenders (n=44)</th>
<th>Analyzers (n=47)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>.530***</td>
<td>-.019</td>
<td>.510***</td>
</tr>
<tr>
<td>Competitor Orientation</td>
<td>-.110</td>
<td>-.149</td>
<td>-.699***</td>
</tr>
<tr>
<td>Interfunctional Coordination</td>
<td>-.195</td>
<td>.551**</td>
<td>.295</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.154</td>
<td>.187</td>
<td>.291</td>
</tr>
<tr>
<td>F value</td>
<td>3.38**</td>
<td>3.07**</td>
<td>5.88***</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>.529***</td>
<td>.154</td>
<td>.638***</td>
</tr>
<tr>
<td>Competitor Orientation</td>
<td>-.116</td>
<td>-.124</td>
<td>-.814***</td>
</tr>
<tr>
<td>Interfunctional Coordination</td>
<td>-.219</td>
<td>.526**</td>
<td>.246</td>
</tr>
<tr>
<td>Centralization</td>
<td>.223</td>
<td>.139</td>
<td>-.164</td>
</tr>
<tr>
<td>Formalization</td>
<td>.042</td>
<td>.303</td>
<td>.374*</td>
</tr>
<tr>
<td>Specialization</td>
<td>.057</td>
<td>.017</td>
<td>.102</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.221</td>
<td>.329</td>
<td>.391</td>
</tr>
<tr>
<td>(R^2) Change</td>
<td>.068</td>
<td>.141</td>
<td>.099</td>
</tr>
<tr>
<td>F value</td>
<td>1.53</td>
<td>2.59*</td>
<td>2.15</td>
</tr>
</tbody>
</table>

*p < .10
**p < .05
***p < .01
For a better understanding of research findings, the means of the dimensions of organizational structure and organizational culture were calculated for the top 20 and lowest 20 performing companies for each strategy type. The mean scores are shown in Table 3.5.

Although competitor orientation is not significant, the results are in the hypothesized direction (see Table 3.4), and the mean score of the top 20 performing prospectors is considerably high (5.8) and greater than the mean score of the low 20 performing (5.3) prospectors on Table 3.5. It is concluded that competitor orientation has a positive effect on prospectors’ performance as hypothesized. High level of competitor orientation is necessary for prospectors’ superior performance, as markets are not perfect in terms of production factors and asset accumulation. In such markets the only way to create competitive advantage with scarce resources is to perform better than competitors (Barney 1991).

Although interfunctional coordination of prospectors is not significant, its sign is negative as anticipated. Top performing prospectors’ interfunctional coordination mean score (5.6) is lower than the counterpart, defenders’ mean score (6.1). As discussed earlier, implementing a prospector strategy involves performing many complex marketing activities to monitor customers’ needs and preferences closely (McDaniel and Kolari 1987; McKee, Varadarajan, and Pride 1989). Therefore, their functional groups should be organized as high level of independent behaviors, high tolerance for ambiguity and unpredictability. These characteristics can provide close monitoring and timely response to the market. On the other hand, these characteristics make functions diverse
and interrelated to each other in a complex way. Consequently, attempting high level of coordination between diverse functions impedes creative and prompt decision-making. As a result, the current finding is consistent with the theory that prospectors' interfunctional coordination is negatively related with prospectors' performance.

Structural variables, centralization and formalization are positive and non-significant but prospectors' mean scores are considerably low for both high and low performers. Another structural variable, specialization is not significant, but its sign is positive in parallel with the current study's prediction with highest mean score (5.0) in three strategy types. These findings indicate that prospectors are highly decentralized and informal organizations with high number of special activities. In other terms, consistent with the theory, these companies are flexible and adaptive.

Defenders:

From the organizational structure perspective, the performance of defenders is positively related with centralization and formalization, and negatively related with specialization; from the market oriented culture perspective, the performance of defenders is positively related with interfunctional coordination and competitor orientation, and negatively related with customer orientation.

It is found a positive effect of interfunctional coordination ($\beta = .551$, $p < .05$) on defenders performance. Structural variables, centralization and formalization are positive that they were predicted and they are nonsignificant. Specialization is not significant, and its positive sign is not in parallel with the current study's prediction. Customer orientation is not significant but its sign is negative as anticipated.
The results also show a negative effect of competitor orientation ($\beta = -0.124$) that were not expected. Further analysis shows that the relationship among performance, interfunctional coordination and competitor orientation are affected by suppressor effect. In fact, competitor orientation is suppressing the error variance in interfunctional coordination rather than explain much about performance (Cohen and Cohen 1975, p.91). The appropriate conclusion is that competitor orientation has a positive ($\beta = 0.28 p < .10$) effect on defenders' performance. Therefore $H_2$ is partially supported.

The significant and positive result indicates that defenders are highly depended on interfunctional coordination in their configuration of organizational resource for superior performance. As stated previously, their main purpose is on efficiency through standardized practices, rather than on effectiveness that stems from flexibility. (Ruekert, Walker and Roering 1985). They concentrate on narrowly selected products or markets, and they seek for achieving cost based advantages. Since they are under cost pressure all time, they need routine activities and focused functional groups (Ruekert and Walker 1987). As a result, in parallel with the findings, their functions are highly interconnected to each other.

Although customer orientation is not significant, its sign is negative as anticipated. The reason for the negative relationship is as follows: The main objective of defenders is to increase the productivity by reducing the input (labor and materials) required to produce a unit of output. For this reason, defenders will focus on internal processes, such as engineering and distribution, to reach their final goal, which is reducing costs. On the other hand, since customer orientation requires many complex activities and established values about work flexibility to identify customer interest
continuously; customer orientation, which has a potential to increase costs, is not desirable for defenders\textsuperscript{12}.

About competitor orientation, the sign is positive as expected. The mean score of the top 20 performing defenders is considerably high (6.2) and greater than the mean score of the low 20 performing (5.2) defenders on Table 3.5. It can be concluded that competitor orientation has a positive effect on defenders’ performance as hypothesized. High level of competitor orientation is necessary for defenders’ superior performance, as markets are not perfect in terms of production factors and asset accumulation. In such markets the only way to create competitive advantage with scarce resources is to perform better than competitors (Barney 1991).

Structural variables, centralization and formalization are positive as predicted; also their mean scores of high performing defenders are the highest scores in three strategy types, 4.3 for centralization and 4.6 for formalization. Another structural variable, specialization is not significant and its sign is positive, not in parallel with the study prediction. On the other hand, its mean score (3.8 for high performers and 3.9 for low performers) is the lowest score in three strategy types. These findings indicate that defenders are highly centralized and formal organizations with limited number of special activities.

Analyzers:

\textsuperscript{12} Although there is a negative relationship between defenders performance and defenders customer orientation, the mean score of customer orientation for high performing defenders is considerably high (5.3). This finding is consistent with Walker and Ruekert (1987) statement that defenders need to pursue an acceptable level of customer orientation to establish their less sophisticated product or service lines.
Performance of analyzers is positively related with customer orientation, competitor orientation and interfunctional coordination.

It is found a positive effect of customer orientation ($\beta = .638 \ p < .01$) on analyzers performance. Interfunctional coordination is positive as expected but it is not significant. The results also show a negative effect of competitor orientation ($\beta = -.814, p < .01$) that it was not predicted. Further analysis shows that the relationship among performance, customer orientation and competitor orientation are affected by suppressor effect. In fact, competitor orientation is suppressing the error variance in customer orientation rather than explain much about performance (Cohen and Cohen 1975, p.91). The appropriate conclusion is that competitor orientation has a positive effect on analyzers' performance. While it is assumed that structural variables do not have consistent patterns to predict analyzers performance, formalization is positive and significant effect on analyzers' performance ($\beta = .374 \ p < .10$). Therefore it is concluded that H3 is partially supported.

Under the lights of regression analysis, it can be concluded that cultural characteristics of analyzers are highly customer and competitor oriented with highly coordinated functional groups. This view is also supported by the mean score numbers of cultural dimensions which they are relatively high; 5.0 for customer orientation, 4.9 for competitor orientation and interfunctional coordination. For the deeper investigation, those mean scores are the lower than mean scores of other strategy types, prospectors and defenders. This finding is not surprising because analyzers seek to obtain both cost and differentiation based advantages. Analyzers, given their hybrid nature, have more
balanced cultural characteristics since they need to be efficient and effective with their limited resources at the same time.

Even though regression result indicates that formalization is positive and significant, the mean score of structural variables, centralization (3.4), formalization (3.9) and specialization (4.7) are around average. These findings suggest that there is no clear structural configuration for analyzers.
Table 3.5
Profiles of High and Low Performing Firms by Strategy type:
Mean Scores (St. Deviations)

<table>
<thead>
<tr>
<th>Organizational Variable</th>
<th>Prosectors</th>
<th>Defenders</th>
<th>Analyzers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High 20</td>
<td>Low 20</td>
<td>High 20</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>6.2(.59)</td>
<td>5.3(1.5)</td>
<td>5.3(1.4)</td>
</tr>
<tr>
<td>Competitor Orientation</td>
<td>5.8(.83)</td>
<td>5.3(1.6)</td>
<td>6.2(.81)</td>
</tr>
<tr>
<td>Interfunctional Coordination</td>
<td>5.6(1.0)</td>
<td>5.3(1.6)</td>
<td>6.1(.77)</td>
</tr>
<tr>
<td>Organizational Structure Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centralization</td>
<td>2.6(1.1)</td>
<td>2.3(9)</td>
<td>4.3(.93)</td>
</tr>
<tr>
<td>Formalization</td>
<td>3.0(1.2)</td>
<td>2.6(9)</td>
<td>4.6(1.1)</td>
</tr>
<tr>
<td>Specialization</td>
<td>5.0(9.6)</td>
<td>4.6(1.2)</td>
<td>3.8(1.5)</td>
</tr>
</tbody>
</table>

In Table 3.4, although the total variance explained in the regression equations is moderate (ranging from .22 for prospectors, .33 for defenders and .39 for analyzers), these values are in line with configuration studies in marketing and management literatures (e.g., Doty, Glick, and Hofer 1993; Vorhies and Morgan 2003; Dobni and Luffman 2003; and Olson Slater and Hult 2005).

3.5.4.2 Results for Mediational Role of Strategy Types:

$H_{41}$ to $H_{43}$ are related to mediational effect of the level of each strategy type between market orientation and performance. To test the hypotheses about mediational role of strategy types between market orientation and performance, the procedure developed by is used Baron and Kenny (1986) is used. The procedure simply uses a set of simple regression equations as follows.
\[ Y = cX + e_1 \]
\[ M = aX + e_2 \]
\[ Y = c'X + bM + e_3 \]

The independent variable (X) causes the outcome variable (Y)
The independent variable (X) causes the mediator variable (M)
The mediator (M) causes the outcome variable (Y) when controlling for the independent variable (X). This must be true.

If the effect of X on Y is zero when the mediator is included \((c' = 0)\), there is evidence for mediation. This would be full mediation.

If the effect of X on Y is reduced when the mediator is included \((c' < c)\), then the direct effect is partially mediated.

In current model market orientation is the independent variable (X), performance of each strategy types is the dependent variable (Y) and strategy types are the mediators (M).

As expected, parameter estimates of market orientation for prospectors and defenders are positive and significant on performance (see Table 3.6 part A). Analyzers are not significant but this is not entirely unexpected in the light of the previous researches that found nonsignificant and mixed results (Greenley 1995, Hart and Diamantopoulos 1993).

Mediational testing is done by analyzing the market orientation – strategy level – performance connection (see Table 3.6 part B). \( H_{41} \) states that the level of prospector strategy mediates the relationship between prospectors’ market orientation and prospectors’ performance. The results do not support the mediation for prospectors.

Table 3.6 part A shows that first, the effect of market orientation on performance is significant \((\beta = .227 \ p < .10)\) as expected and second, the effect of strategy level on performance \((\beta = .076)\) is not significant which is not expected. Although market orientation and strategy level are significant predictor of performance as expected (Table 3.6 part B), mediational model requires in separate regressions (Table 3.6 part A) that first, market orientation should be significantly related to performance as anticipated and second, market orientation should be significantly related to strategy level which is not significant in current model.
The findings suggest that the relationship between market orientation and performance is determined independent of prospectors' strategy levels (Table 3.6 part A). The results in Table 3.6 part A also reveal that level of prospectors and market orientation of prospectors are not correlated. This can be explained by the argument that that prospectors, in general, are highly market oriented organizations since they have high level of boundary spanning activities with close customer monitoring abilities (Conant, Mokwa, and Varadarajan 1990, and Lukas 1999). And their market orientation level directly determines prospector's performance.

H42 states that the level of defender strategy type mediates the relationship between market orientation and performance. Table 3.6.A shows in separate regressions that market orientation is significantly related to performance ($\beta = .324 \ p < .05$) and market orientation is significantly related to strategy level ($\beta = -.375 \ p < .05$). Although those significant results are necessary for the presence of mediation, they are not sufficient. In combined regression, Table 3.6.B shows that strategy level has nonsignificant ($\beta = .252 \ p < .11$) effect on performance, although the $p$ value is very close to accept the presence of partial mediation. Therefore, the results do not support the mediation for defenders.

Although the strategy level and performance relationship was not significant in combined model, the effects of the market orientation on performance diminished when the mediator (strategy level) were controlled. Separate regression results (Table 3.6 part A) suggest that the relationship between market orientation and performance is well established for defenders ($\beta = .324 \ p < .05$). Correlation between market orientation and
defenders’ strategy level is significant and negative ($\beta = .375$, $p < .05$). This finding is expected since excessive use of defender strategy can happen by developing greater and greater competence on cost control (Levinthal and March 1993). Even though those activities increase the defenders related competence, they drive out customer sensing and innovative capabilities of the organizations. As a result, those organizations market orientation level shrinks.

$H_{43}$ states that the level of analyzer strategy mediates the relationship between market orientation and performance. As seen in Table 3.6.B, strategy level and market orientation have nonsignificant effect on performance. Therefore, $H_{43}$ was not supported.

Table 3.6.A shows that analyzers’ market orientation is significantly related to strategy level ($\beta = .242$, $p < .10$). This can be explained by the hybrid nature of analyzers since they seek both efficient and effective based advantages. While the high level of analyzers can have high level of market orientation, they do not benefit from market orientation in terms of performance as Table 3.6.A shows that analyzers’ market orientation is not significantly related to performance ($\beta = .134$, ns). Analyzers need to perform complex market activities and also they need to organize to implement cost sensitive activities. Although these activities result in increased level of market orientation, they do not lead to increased performance. The dual nature of analyzers creates cultural and structural conflicts. As a result, market orientation does not have a direct or indirect effect on analyzers performance.
Table 3.6
Regression Results of Strategy Types as Mediators between Market Orientation and Performance:

A. Separate Simple Regression Results

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>Market Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Prospectors</td>
<td>Performance</td>
<td>.227*</td>
</tr>
<tr>
<td></td>
<td>Strategy Level</td>
<td>.074</td>
</tr>
<tr>
<td>For Defenders</td>
<td>Performance</td>
<td>.324**</td>
</tr>
<tr>
<td></td>
<td>Strategy Level</td>
<td>-.375**</td>
</tr>
<tr>
<td>For Analyzers</td>
<td>Performance</td>
<td>.134</td>
</tr>
<tr>
<td></td>
<td>Strategy Level</td>
<td>.242*</td>
</tr>
</tbody>
</table>

B. Regression Results of Market Orientation-Strategy Levels-Performance Chain

<table>
<thead>
<tr>
<th>Prospects' Performance (H41)</th>
<th>Market Orientation</th>
<th>Strategy Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.259**</td>
<td>-.44***</td>
</tr>
<tr>
<td>For Defenders' Performance (H42)</td>
<td>.230</td>
<td>.252</td>
</tr>
<tr>
<td>For Analyzers' Performance (H43)</td>
<td>.095</td>
<td>.162</td>
</tr>
</tbody>
</table>

3.5.4.3 Results for Component-wise Analyses:

H51 and H52 suggest that each strategy type should stress different components of market orientation for superior performance, because implementing a specific strategy requires different configuration of each dimension on market orientation (Day and Nerungadi 1994).

H51 states that the impact of customer orientation on prospectors’ performance is greater than that of competitor orientation and interfunctional coordination. Prospectors
focus externally on customer perceptions and attitudes that will lead to more sales. And, programs emphasizing prospectors address the issues that have the greatest impact on overall customer satisfaction (Miles and Snow 1978). High level of customer satisfaction can be achieved by emphasizing relatively more customer orientation than competitor orientation and interfunctional coordination (Slater and Narver 1994). As seen Table 3.4, the coefficient of customer orientation is significant ($\beta = .530 \ p < .01$) and greater than that of competitor orientation and interfunctional coordination. Therefore H$_{51}$ is supported.

H$_{52}$ states that the impact of interfunctional coordination on defenders' performance is greater than that of customer orientation and competitor orientation. The results support the notion that defenders focus on the efficiency of the firm's processes. Successful defenders tend to increase the productivity by reducing the input (labor and materials) required to produce a unit of output (Miles and Snow 1978). Their focus is internal and the goal is to reduce costs. Therefore, they must have highly depended on interfunctional coordination than the other two dimensions of market orientation, to increase efficiency and productivity by eliminating defects and unnecessary effort (Rust, Moorman and Dickson 2002). As seen in Table 3.4, the coefficient of interfunctional coordination is significant ($\beta = .551 \ p < .01$) and greater than that of competitor orientation and customer orientation. Therefore H$_{52}$ is supported.

3.5.4.4 Results for Environmental Moderators:

There are two types of analysis in literature to identify the presence of moderators between the predictor and criterion variables. The first one is multiplicative interaction term which is used in hierarchical multiple regression procedure, specifies the form of the
relationship between the predictor and criterion variables. The second one is multiple group analysis and modifies the strength of the relationship between the predictor and criterion variables. Following Sharma, Durand and Gur-Arie (1981) suggestion, the both types of analysis have been used identifying the presence and type of moderator variables in this study.

In first method, moderator effects can be detected by using moderated regression analysis (Arnold 1982; Golden, 1992; Hellevik, 1984; Sharma, Durand and Gur-Arie 1981; Schoonhoven, 1981). The procedure requires the introduction of a multiplicative interaction term into the regression equation:

\[ Y = b_0 + b_1X_1 + b_2X_2 + b_3 X_1X_2 + \ldots + b_nX_n + \epsilon \]

where \( X_1X_2 \) is the multiplicative interaction term; where \( X_1 \) is predictor variable and where \( X_2 \) is a moderator variable. A moderator effect is indicated where the regression coefficient of the interaction term (\( b_3 \)) is statistically significant.

A specific type of regression analysis, hierarchical multiple regression, is employed to test the interaction term. There are two reasons for this action. First, hierarchical multiple regression produces fewer Type I and Type II errors for detecting moderator effects relative to procedures that involve the use of cut points (Frazier, Tix and Barron 2004) and second, it provides the partial F associated with the resulting change in \( R^2 \) for each step to test whether or not a moderating effect exists.
Table 3.7.1
Hierarchical Regression Results of Regressing Performance on Customer Orientation, Interfunctional Coordination, Environmental Variables and the Interaction Terms for Prospectors and Defenders

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>.471***</td>
<td>-.046</td>
<td>1.526</td>
<td>1.389</td>
</tr>
<tr>
<td>Interfunctional Coord.</td>
<td>-.226</td>
<td>.446**</td>
<td>1.526</td>
<td>1.389</td>
</tr>
<tr>
<td>R Square</td>
<td>.148</td>
<td>.180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square Change</td>
<td>.148</td>
<td>.180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Value</td>
<td>4.95*</td>
<td>4.49*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>.409**</td>
<td>-.050</td>
<td>1.774</td>
<td>1.908</td>
</tr>
<tr>
<td>Interfunctional Coord.</td>
<td>-.257</td>
<td>.382**</td>
<td>1.591</td>
<td>1.736</td>
</tr>
<tr>
<td>Market Turb.</td>
<td>.122</td>
<td>.055</td>
<td>1.608</td>
<td>1.506</td>
</tr>
<tr>
<td>Competitive Ints.</td>
<td>.047</td>
<td>.251</td>
<td>1.571</td>
<td>1.284</td>
</tr>
<tr>
<td>R Square</td>
<td>.165</td>
<td>.249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square Change</td>
<td>.016</td>
<td>.070</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Value</td>
<td>.540</td>
<td>1.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Orientation</td>
<td>.640*</td>
<td>-.058</td>
<td>7.565</td>
<td>1.917</td>
</tr>
<tr>
<td>Interfunctional Coord.</td>
<td>-.279*</td>
<td>-.814</td>
<td>1.647</td>
<td>62.416</td>
</tr>
<tr>
<td>Market Turb.</td>
<td>.850</td>
<td>.396</td>
<td>50.996</td>
<td>22.583</td>
</tr>
<tr>
<td>Competitive Ints.</td>
<td>-.417</td>
<td>-1.091</td>
<td>59.438</td>
<td>47.343</td>
</tr>
<tr>
<td>Customer Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Market Turbulence Int. (H61)</td>
<td>-1.033</td>
<td>94.914</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Competitive Intensity Int. (H63)</td>
<td>.599</td>
<td>104.966</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interfunctional Coordination *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Turbulence Int. (H62)</td>
<td>- .532</td>
<td>140.248</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interfunctional Coordination *</td>
<td>2.346</td>
<td>47.793</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td>.181</td>
<td>.289</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square Change</td>
<td>.017</td>
<td>.039</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Value</td>
<td>.546</td>
<td>1.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In the moderated hierarchical regression analysis (Table 3.7.1) the predictor variables (customer orientation and interfunctional coordination) were entered in the first step, environmental variables (market turbulence and competitive intensity) were entered in the second step. In the last step, the interaction variables were entered. As seen in step 3, the inclusion of interaction terms to the model explains the limited amount of variance (R square change .017 for prospectors and .039 for defenders) and as non significant F value (.546 for prospectors and .1.02 for defenders) indicates that the contribution of interaction terms to the model does not make significant change. As a result, the moderation effect of environmental uncertainties on the relationship between dimensions of market orientation (customer orientation and interfunctional coordination) and business performance does not support the hypothesized moderating effects for both strategy types.

Results presented in Table 3.7.1 show that although there is a strong relationship between customer orientation and prospectors’ performance, H6i is not supported (β = -1.03 ns) and indicated that turbulent markets do not moderate the relationship between customer orientation and prospectors’ performance.

H62 is not supported since it is not significant (β = -.532 ns). This finding indicates that relationship between interfunctional coordination and defenders’ performance is not affected by the changes in turbulent market environment.

H63 is not significant (β = .599 ns) indicating that the relationship between customer orientation and prospectors’ performance is not affected by the changes in competitive intense market environment. This finding is explained as; prospectors focus on changes on customer preferences. As they focus on customer needs rather than
changes in competitive intensity, competitive intense environment does not influence the relationship between customer orientation and prospectors performance.

$H_{64}$ is not supported ($\beta = 2.34 \text{ ns}$). The finding indicates that competitive intense markets do not moderate the relationship between interfunctional coordination and defenders' performance.

About the second type of moderation effect, the moderation effect of environmental uncertainties on the relationship between the level of strategy types and their performance has been assessed by using both moderated hierarchical regression analysis and subgroup analysis (Table 3.7.2).

In the moderated hierarchical regression analysis the predictor variable, strategy level, were entered in the first step, environmental variables (market turbulence and competitive intensity) were entered in the second step. In the last step, the interaction variables were entered. As seen in step 3, the inclusion of interaction terms to the model explains the significant amount of variance (R square change .086 for prospectors and .104 for defenders) and as significant F value (3.49 for prospectors and .3.23 for defenders) indicates that the contribution of interaction terms to the model makes significant change. The significant results may not be comprehended that hypothesized moderating effects are supported. The following two reasons explain this assertion in detail.

The first reason is that variance inflation factor (VIF) which is calculated for each of the regression coefficients. The VIF provides information on the extent to which nonorthogonality among independent variables inflates standard errors. The VIF ranges from 34.31 to 54.22, well above the cutoff of 10 recommended by Neter, Warresaman
and Kutner (1985, p.32). This finding suggests that multicollinearity is a threat to the substantive conclusions drawn from the parameter estimates.

The second reason is about the meaning of the moderators drawn from moderated regression analysis. According to Sharma, Durand and Gur-Arie (1981) multiplicative interaction terms shown in step 3 in Table 3.7.2, may not be considered as a pure moderator, because both moderator variables and predictor variable are significantly correlated to performance. Sharma, Durand and Gur-Arie (1981) states that if the hypothesized moderator variable turns out to be related to the criterion variable, the moderator effect is not clear because each of the independent variables can, in turn, be interpreted as a moderator.
### Table 3.7.2
Hierarchical Regression Results of Regressing Performance on Strategy Level, Environmental Variables and the Interaction Terms for Prospectors and Defenders

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prosp. Perform.</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
</tr>
<tr>
<td>Strategy Level</td>
<td>-.421***</td>
</tr>
<tr>
<td>R Square</td>
<td>.177</td>
</tr>
<tr>
<td>R Square Change</td>
<td>.177</td>
</tr>
<tr>
<td>F Value</td>
<td>12.5***</td>
</tr>
</tbody>
</table>

| **Step 2**            |                |                  |          |          |
| Strategy Level        | -.429***       | -.397***         | 1.001    | 1.051    |
| Market Turb.          | .195           | -.076            | 1.441    | 1.140    |
| Competitive Ints.     | .106           | .430***          | 1.442    | 1.128    |
| R Square              | .249           | .283             |          |          |
| R Square Change       | .072           | .168             |          |          |
| F Value               | 2.68*          | 4.68**           |          |          |

| **Step 3**            |                |                  |          |          |
| Strategy Level        | -.465          | 1.187            | 16.162   | 34.315   |
| Market Turb.          | 1.792***       | -.024            | 34.733   | 33.955   |
| Competitive Ints.     | -1.418**       | 1.979***         | 34.552   | 26.079   |
| St. level and Mark Turb Int | -2.354**      | -.132            | 70.411   | 45.068   |
| St. Level and Competitive Ints Int | 2.320**      | -2.285**         | 74.933   | 54.226   |
| R Square              | .335           | .387             |          |          |
| R Square Change       | .086           | .104             |          |          |
| F Value               | 3.49**         | 3.23**           |          |          |

The subgroup analysis is employed to overcome those difficulties discussed above. Although subgroup analysis cannot avoid the loss of information resulting from the artificial transformation of a continuous variable into a categorical one, partitioning the total sample into homogeneous subgroups with respect to the error variance can increase the predictive efficacy for each subgroup (Zedeck et al. 1971). The partial
correlation coefficient for market orientation and performance in each subgroup are reported in Table 3.7.3-Part A.

Table 3.7.3
Subgroup Analysis of Moderator Effects for Turbulent Environment

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Partial Correlation Coefficients for Subgroups</th>
<th>Dependent Variable - Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Market Turbulence (H65, H66)</td>
<td>Competitive Intensity (H67, H68)</td>
</tr>
<tr>
<td>prospectors</td>
<td>Chow test F value</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LO - .293</td>
<td>HI -.557***</td>
</tr>
<tr>
<td></td>
<td>HI -.565***</td>
<td>LO HI -.387**</td>
</tr>
<tr>
<td>Defenders</td>
<td>Chow test F value</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LO -.378*</td>
<td>HI -.261</td>
</tr>
<tr>
<td></td>
<td>HI -.319</td>
<td>LO HI -.533**</td>
</tr>
</tbody>
</table>

Table 3.7.3-Part A correlates strategy level and performance for each subgroups of environmental uncertainty and reports the correlation coefficients for prospectors and defenders. The mainly significant results of correlation coefficient for subgroups are not enough for the presence of moderating effect. It also needs to be tested that whether those high and low group regression coefficients are significantly different. The Chow test provides whether the full set of regression parameters differ among groups. Table
3.7.3-Part A shows that there are no differences between high and low market turbulence for both strategy types. Both F values are not significant (2.10 for prospectors, .281 for defenders).

While market turbulence is a significant predictor of prospectors’ performance (Table 3.7.2, $\beta = 1.792 \ p < .01$), $H_{65}$ is not significant indicating that the changes in market turbulence do not affect the relationship between prospectors’ strategy level and prospectors’ performance. In the same token, $H_{66}$ is not significant indicating that the changes in market turbulence do not affect the relationship between defenders’ strategy level and defenders’ performance.

$H_{68}$ (F value = 5.73 \ $p < .05$) is supported indicating that the changes in competitive intensity affect the relationship between prospectors’ strategy level and prospectors’ performance. And $H_{67}$ is significant (F value = 4.72 \ $p < .05$) indicating that the changes in competitive intensity affect the relationship between defenders’ strategy level and defenders’ performance.

This study is also like to see whether companies respond differently to the high and low turbulent markets. As stated before multiplicative interactive term provides the form of the relationship between the criterion and predictor variables. In other word, it changes only the slope of the suggested equation. But it is expected that the companies behave differently in high or low turbulent markets, rather than responding to the any turbulent changes at the same rate. This can also be clarified by subgroup analysis, which gives the strength of the relationship between the criterion and predictor variables. Therefore it can be concluded that relationship between strategy level and performance get stronger in low intense competitive environment for prospectors; and for defenders,
relationship between strategy level and performance get stronger in high intense competitive environment.

The hypotheses about the environmental context as driver to market orientation (Table 3.7.3 Part B), \( H_{71} (\beta = .306 \ p < .01) \) and \( H_{72} (\beta = -.173 \ p < .05) \), are both supported. \( H_{71} \) indicates that companies put more emphasis on customer orientation than interfunctional coordination in the highly turbulent markets. \( H_{72} \) indicates that companies put more emphasis on interfunctional coordination than customer orientation in the highly competitive intense environment.

3.5.4.5. Results for Market Orientation and Strategy Level:

The regression results reveal that there is a negative significant relationship between defenders’ strategy level and defenders’ performance (Table 3.7.2). As discussed before, defenders rely on established routines and standardized internal process to achieve cost based advantage (Ruekert and Walker 1987). Certain defenders may find themselves using an excessive level of cost related activities, because the returns of those type of activities are more certain, closer in time and closer in space than are the returns of innovative and consumer sensing activities. Even though those activities increase the defenders related competence, they drive out customer sensing and innovative capabilities of the organizations. As a result, defenders perform poorly since they lack of ability to execute necessary activities for customer sensing and innovation (Aug and Menguc 2005). Under the lights of statements above, this study investigates whether market orientation can be a useful tool to curb the tendency that drives defenders to the extreme use of the strategy.
Hₜ is supported (β = -.278  p < .10) as the higher level of market oriented companies will use lower level of defender strategy (see Table 3.7.3-Part C). This finding suggests that market oriented culture is essential for defenders to avoid the trap discussed at previous paragraph. Market oriented behaviors do not allow organizations to drive themselves to high levels of defender. The following explains the rationale behind this assertion. Market orientation emphasizes a unifying belief that emphasizes serving and creating value for customers (Deshpande, Farley and Webster 1993; Homburg and Pflesser, 2000; Ruekert, 1992). The unified focus on customers mitigates the tendency to become very focused and rigid for defenders. These firms may therefore not lose touch with customers’ changing needs. In a market-oriented firm, customer focused goals pacify this tendency because they continually push organizational members to consider new customers and new ways of satisfying existing customers. Consequently, increased market oriented culture leads to decreased strategy level for defenders.

For prospectors, the regression results reveal that there is a negative significant relationship between prospectors’ strategy level and their performance (Table 3.7.2). As explained earlier, some prospectors depend on innovation and seek customers’ preferences excessively. These types of companies involve many complex activities, decision-making freedom and work-routine flexibility to respond customers’ needs and preferences on a timely basis (Ruekert and Walker 1987). In such organizations it is very difficult to pursue cost reduction and internal process related programs (Treacy and Wiersema 1995). Other prospectors may also excel in innovation and differentiation, however, since they do not use prospector strategy in high level, their structural and cultural characteristics may allow them to pursue cost-reduction strategies and internal
process to experience some cost benefits. As a result, these types of prospectors perform poorly since they lack of ability to execute necessary activities for cost-reduction and internal processes. Under the lights of statements above, this study investigates whether market orientation can be a useful tool to curb the tendency that drives prospectors to the extreme use of the strategy.

Table 3.7.3-Part C states that $H_{82}$, the higher level of market oriented companies will use lower level of prospector strategy, is not supported ($\beta = .177$ ns). The result reveals that level of prospectors and market orientation of prospectors are not correlated. It can be explained that prospectors overall are highly market oriented organizations (5.9 mean score) since they have high level of boundary spanning activities with close customer monitoring abilities (Conant, Mokwa, and Varadarajan 1990, and Lukas 1999). As prospectors from every level are highly market oriented organizations, variation in prospectors’ market oriented level might be limited to explain the variation in prospectors’ strategy level. Therefore being highly market oriented does not necessarily result in using lower level of strategy for defenders.
CHAPTER FOUR: CONCLUSIONS AND IMPLICATIONS

In this chapter, the main results of the study are first discussed along with their managerial implications. These will then be followed by the contributions and major limitations of the study along with future research suggestions.

4.1 Discussion of Study Results and Managerial Implications

The main objectives of this study are twofold. First it investigates the link between organizational resources – components of market oriented culture and components of organizational structure - and organizational performance for each strategy types – prospectors, defenders and analyzers. Second, it explores the mediation link of strategy types between market orientation and organizational performance. In addition, the possible moderating effects of environmental uncertainties on the suggested model are investigated. Also the effects of components of market oriented culture on the organizational performance for each strategy types are analyzed. This study has important implications that should be considered by practitioners.

Prospectors:

It can be concluded from the results that prospectors have highest customer oriented, high competitor oriented, relatively low interfunctionally coordinated organizational culture, and highly informal, decentralized organizational structure with highly specialized activities.

The significant and positive result indicates that prospectors are highly depended on customer orientation in their configuration of organizational resource for superior performance. Managers of prospectors’ main purpose are to increase satisfaction by
giving better quality or innovative products (Vorhies and Morgan 2003). Managers should focus on customer to achieve this objective because customer orientation facilitates to analyze, to understand, and to answer user needs. Competitor orientation, a second component of market orientation, is required for prospectors’ superior performance. They need to perform better than competitors to create competitive advantage with scarce resources (Barney 1991). Interfunctional coordination of prospectors’ sign is negative in relation with prospectors’ performance and high performing prospectors’ interfunctional coordination mean score is lower than the counterpart, defenders’ mean score. Suggested low level of interfunctional coordination for prospectors is desirable for their characteristics of functional groups. Their functional groups should be organized as high level of independent behaviors, high tolerance for ambiguity and unpredictability. Because implementing a prospector strategy involves performing many complex marketing activities to monitor customers’ needs and preferences closely. Consequently, these characteristics of activities make functions diverse and interrelated to each other in a complex way. Managers should pay attention to avoid tight coordination between diverse functions because it impedes creativity and prompt decision-making (Auh and Menguc 2004).

From the organizational structure perspective, centralization and formalization are positive and non-significant but the mean scores are considerably low. Another structural variable, specialization is not significant, but its sign is positive in parallel with the current study’s prediction with highest mean score in three strategy types. The implications of these findings to managers are that prospectors are highly decentralized and informal organizations with high number of special activities. In other terms,
consistent with (Vorhies and Morgan 2003) findings, these companies are flexible and adaptive; there are few formal procedures, and essential decisions are made at reasonably low levels. The reason for decentralized decision making is that these organizations hire a high number of experts who have specialized knowledge than do analyzers and defenders.

**Defenders:**

It can be concluded from the results that defenders have highest interfunctionally coordinated and competitor oriented, relatively low customer oriented organizational culture and, highly formal organizational structure with centralized decision making procedure.

Managers should pay attention that defenders are highly depended on interfunctional coordination in their configuration of organizational resource for superior performance. The findings support the theory developed by Ruekert, Walker and Roering (1985) that defenders operate on efficiency through standardized practices, rather than on effectiveness that stems from flexibility. They concentrate on narrowly selected products or markets, and they seek for achieving cost based advantages. Since they are under cost pressure all time, they need routine activities and focused functional groups (Ruekert and Walker 1987). As a result, in parallel with the findings, their functions are highly interconnected to each other.

From the customer orientation perspective, the findings suggest that being highly customer oriented is not appealing for defenders. As stated before, the main objective of defenders is to increase the productivity by reducing the input (labor and materials) required to produce a unit of output. For this reason, defenders will focus on internal
processes, such as engineering and distribution, to reach their final goal, which is reducing costs. On the other hand, since customer orientation requires many complex activities and established values about work flexibility to identify customer interest continuously; customer orientation, which has a potential to increase costs, is not desirable for defenders. The statement above is supported by the results that there is a negative link between defenders performance and defenders customer orientation, but the mean score of customer orientation for high performing defenders is considerably high. This finding is consistent with Walker and Ruekert (1987) statement that defenders need to pursue an acceptable level of customer orientation to establish their less sophisticated product or service lines. Competitor orientation has a positive effect on defenders’ performance as hypothesized. Since defenders’ main purpose is to perform better than competitors, high level of competitor orientation is required for defenders to create competitive advantage with scarce resources.

Structural variables, centralization and formalization are positive as predicted for defenders; also their mean scores are the highest scores in three strategy types. Another structural variable, specialization is the lowest score in three strategy types. The implications of these findings to managers are that to be defenders, highly centralized and formal organization structure is required with limited number of special activities.

**Analyzers:**

It can be concluded from the results that analyzers have relatively low customer oriented, competitor oriented and interfunctionally coordinated organizational culture and average centralized, formalized and specialized organizational structure.
Cultural characteristics of analyzers are low customer and competitor oriented with less coordinated functional groups. The mean scores of analyzers are the lower than mean scores of other strategy types, prospectors and defenders. This result is not surprising because analyzers seek to obtain both cost and differentiation based advantages. Analyzers, given their hybrid nature, have more balanced cultural characteristics since they need to be efficient and effective with their limited resources at the same time. The mean scores of structural variables, centralization, formalization and specialization are around average. These findings suggest to managers that there is no clear structural configuration for analyzers because they need to be efficient and effective simultaneously.

4.1.1 Mediational Role of Strategy Types:

The mediational role of strategy types between market orientation and performance are not supported for three strategy types. The findings suggest that strategy types do not play any role in the context of the relationship between market orientation and performance. Conversely, empirical results do not provide any evidence that strategy types facilitate implementing market orientation.

While there are no mediation effects, the results of main effects can be considered insightful. As seen Table 3.6-Part A, level of prospectors and market orientation of prospectors are not correlated. This can be explained by the argument that prospectors, from every level, are highly market oriented organizations as they have high level of boundary spanning activities with close customer monitoring abilities (Conant, Mokwa, and Varadarajan 1990, and Lukas 1999). Since their market orientation scores are the highest in three strategy types, any kind of prospectors’ main objective is to be highly
market oriented unrelated to their strategy levels. As a result, prospectors’ strategy levels are not determined by their market orientation. On the other hand, there is a significant and positive relationship between market orientation and prospector’s performance. These findings disclose to managers that prospectors’ market orientation directly determines prospector’s performance without making any impact on their strategy level.

For defenders, separate regression results on main effects (Table 3.6-Part A) suggest that correlation between market orientation and defenders’ strategy level is significant and negative. As explained before, excessive use of defender strategy can happen by developing greater and greater competence on cost control (Levinthal and March 1993, Miles and Snow 1978) and not paying attention to market oriented behaviors. If defenders monitor market oriented behaviors acceptable enough, they will restrict themselves from using too much defender strategy. Another significant finding is that the positive relationship between market orientation and performance for defenders. As a result, being market oriented is an important concept for defenders by not only mitigating the tendency to become a strict defender but also improving their performance.

Table 3.6-Part A shows that analyzers’ market orientation is significantly related to strategy level. This can be explained by the hybrid nature of analyzers since they seek both efficient and effective based advantages. While the high level of analyzers can have high level of market orientation, they do not benefit from market orientation in terms of performance because analyzers’ market orientation is not significantly related to performance. As stated earlier, analyzers need to perform complex market activities and also they need to organize to implement cost sensitive activities. Although these
activities result in increased level of market orientation, they do not lead to increased performance. The dual nature of analyzers creates cultural and structural conflicts. As a result, market orientation does not have a direct or indirect effect on analyzers performance.

As a result it can be concluded that strategy types are not mediator variables, which facilitates implementation of market orientation for superior performance. Since some strategy types are significantly affecting performance, it can be classifies as another predictor variable along with market orientation.

4.1.2 Environmental Moderators:

The first set of hypotheses contains the results of the influence of environmental turbulence on the relationship between dimensions of market orientation and performance (Table 3.7.A). The findings suggest that there is no support for the proposition that environmental turbulence has a moderating effect on the strength of the dimensions of market orientation and performance (for both prospectors and defenders) relationship.

The results, consistent with the Kohli and Jaworski (1993) and Slater and Narver (1994), suggest that the linkage between market orientation components and performance appears to be robust across contexts characterized by market turbulence and competitive intensity. Implications of these finding to managers is rooted under the cultural concept. As discussed in chapter 2, establishing an organizational culture, market oriented culture in specific, requires long term dedication and expense. Adjusting market orientation to the today’s fast changing environment might not be easy and cost effective. It might be
also possible that the hypothesized moderating effects exist but were not detected because of the relatively small size.

The second set of interaction effect is the influence of environmental turbulence on the relationship between the level of strategy types and their performance. The results reveal that the relationship between strategy level and performance does not moderated by market turbulence for defenders and prospectors.

Although market turbulence determines the prospectors' performance, companies do not respond differently to the changes in turbulent markets (composition of customers and their preferences) on the relationship between strategy level and performance. On the other hand, relationship between prospectors' strategy type and prospectors' performance is moderated by competitive intense environment. In parallel with the related theory, relationship between prospectors' strategy level and prospectors' performance gets stronger in low intense competitive environment for prospectors. Since, in a less competitive environment, competitors do not have the capacity or resources to substantially alter the balance of power among the sellers; focusing on the customers’ needs and wants and seeking superior customer value (like prospectors do) is most likely to lead success (Slater and Narver 1994). It is implied to managers that relatively less competitive intense environment are the appropriate environment to implement prospector strategy for superior performance.

For defenders, relationship between defenders' strategy level and defenders' performance is not affected by the changes in turbulent market environment. This can be explained as, defenders focus on efficiency related activities and internal processes rather than changes in customer conditions or market turbulence for superior performance. On
the other hand, competitive environment moderates the relationship between defenders’
strategy level and defenders’ performance. In parallel with the related theory, defenders’
center of attention is internal and their goal is to reduce costs by focusing on the
efficiency of the firm’s processes (Rust, Moorman and Dickson, 2002). In an extremely
competitive environment along with the lack of possible opportunities for further growth,
organizations need to develop activities such as cost control, aggressive pricing or
promotions. As a result, study findings advise to managers that the level of defenders
and their performance relationship will be stronger in highly competitive environment
compared to the less competitive environment.

4.1.3 Components of Market Orientation and Strategy Types:

Current study also analyzes the effects of different components of market
orientation on the organizational performance for strategy types. Since implementing a
specific strategy requires different configuration of each dimension of market orientation,
strategy types should emphasize the components of market orientation differently for
superior performance (Day and Nerungadi 1994).

Consistent with the Lukas (1999) findings, the results point out that the effect of
customer orientation on prospectors’ performance is greater than that of competitor
orientation and interfunctional coordination. As prospectors focus externally on
customer perceptions and attitudes that will lead to more sales, programs emphasizing
prospectors address the issues that have the greatest impact on overall customer
satisfaction (Miles and Snow 1978).

For defenders, the results indicate that the impact of interfunctional coordination
on defenders’ performance is greater than that of customer orientation and competitor
orientation. The results support the notion that defenders focus on the efficiency of the firm's processes. Successful defenders tend to increase the productivity by reducing the input (labor and materials) required to produce a unit of output (Miles and Snow 1978). Their focus is internal and the goal is to reduce costs. Therefore, they must have higher level of interfunctional coordination than the other two dimensions of market orientation, to increase efficiency and productivity by eliminating defects and unnecessary effort.

4.1.4 Environmental Context and Relative Emphasis

The results indicate that companies put more emphasis on customer orientation than interfunctional coordination in the highly turbulent markets without classifying them into strategy types. As customers’ needs and preferences change rapidly in highly turbulent markets, organizations should be highly customer oriented to satisfy customers and to match their offerings with customers’ needs. Customer oriented values and norms render ability to organizations to monitor closely customers’ needs and preferences for timely response and less likely make mistakes about their offerings. Therefore, organizations tend to emphasize customer orientation rather than interfunctional coordination in high turbulent markets.

The results are also insightful for the less turbulent markets. In such markets, customers’ needs and preferences are relatively predictable and the strategic emphasis is on the price (Porter 1980). Increased attention to innovation and new product development is not desirable in such environment. To compete in price sensitive environment, organizations must pay close attention to their operational costs. They cut down their costs by focusing on efficiency of their processes. Accordingly, efficiency is achieved by focusing on coordination of functional units. As a result, organizations tend
to emphasize interfunctional coordination rather than customer orientation in less turbulent markets.

For the competitive intense environment, the results indicate that companies put more emphasis on interfunctional coordination than customer orientation in the highly competitive intense environment. Companies’ behaviors are no longer being deterministic but stochastic as the behaviors are heavily influenced by the actions and contingencies undertaken by competitors in highly competitive environment (Auh and Menguc 2004). And competitors actions are reflected through tactics such as aggressive pricing and high level of advertising (Porter 1980). Since highly coordinated organizations are successful to increase efficiency and reduce costs, high level of interfunctional coordination should be emphasized in intense competitive environment to perform such activities as aggressive pricing or promotions.

According to the findings, the same logic is also applicable for the opposite end of continuum-less competitive intense markets. Focusing on the customers’ needs and wants and seeking superior customer value is most likely to lead success in less competitive environments (Slater and Narver 1994), since competitors’ actions do not affect substantially the market conditions and the balance of power among the competitors. For the process of adaptation to less intense competitive environment, organizations develop values and norms that focus on customers’ needs and preferences or customer orientation. As customer orientation with value creating and boundary spanning activities leads to superior performance, organizations tend to emphasize customer orientation rather than interfunctional coordination in less turbulent markets.
4.1.5 Market Orientation and Strategy Level:

The results reveal that there is a negative relationship between defenders’ strategy level and defenders’ performance. Using excessive level of cost related activities leads to deprived customer sensing, limited innovative capabilities and consequently poor performance for defenders (Levinthal and March, 1993; Miles and Snow, 1978). This study shows that market orientation can be a useful tool to curb the tendency that drives defenders to the extreme use of the strategy. Market orientation emphasizes a unifying belief that emphasizes serving and creating value for customers. And those unified focus on customers mitigates the tendency to become very focused and rigid for defenders.

On the other hand, the similar statements are not supported for prospectors since the results show that the level of prospectors and market orientation of prospectors is not correlated. This finding is not totally surprising. Since prospectors proactively seek and exploit new market opportunities and often experiment with responses to changing market trends, being market oriented and monitoring market condition continuously is a crucial requirement for prospectors. High mean score of prospectors’ market orientation supports this view. The main purpose of prospectors, from any strategy level, is to be highly market oriented for superior performance and their market orientation does not play any role in their strategy level. As a result, the main determinant of prospectors’ performance is the degree of their market orientation.

4.2. Study Limitations and Future Research Implications

Although current study employs a standard research design used by many social studies, it has some limitations. First, this study uses a cross-sectional design. Cross-
sectional design investigates the hypothesized relationships among the model variables at “one point in time” and hence it gives “a static perspective” (Siguaw, Simpson, and Baker 1998) on the suggested relationships. These relationships are often dynamic in nature and subject to change over time. Also it is argued that the operation of market orientation depends on a continual basis. In other words, there is a laggard effect between market orientation and performance for a strategy type. Future researches should investigate this relationship on a longitudinal base.

Second, the single sector setting of current study limits the generalizability of the findings. The single sector in this study covers most of the service sector (finance and insurance companies, accommodation and food services companies, transportation, and real estate and rental and leasing) and service sector generate over two-thirds of GNP and employment in developed countries (Asia Pacific Business Review, 2002). Although single sector research designs are necessary to control for industry effects and isolate the organizational culture, organizational structure and strategy relationships, studies in additional sectors, such as manufacturing, and multi sector studies are needed to establish the generalizability of the findings.

Third, the number of possible organizational and environmental variables that may have a significant role in the organizational culture, structure and strategy relationship is larger than the number of those used in this study. Apparently, the inclusion of all possible organizational variables in a more holistic approach would be more reflective of a real life situation. However, developing and testing such a comprehensive model is a difficult task to undertake. As a result, conservative path is
taken for organizational variable selection and measurement choices to ensure that the study results would be robust.

Fourth, the present study assessed the level of market orientation only from the firm’s perspective. Another word, this construct is measured by the subjective judgments of one respondent from each surveyed firm. It is likely that the measurement of this construct is affected by different “cognitive biases” such as “position bias”. It is common concern that measuring the level of market orientation in a company through perceptions of sellers only is likely to generate biased study results. It was argued that even using multiple respondents from each company might not reduce this bias. The one way in which market orientation can be measured more precisely is to measure it through the perceptions of customers. It is clear that this approach is much easier to apply when research involves only a single company. If there is more that one company involved, this method might not be cost and time efficient.

Fifth, this study uses a single respondent from each organization. The reliability of a single respondent is unarguably questionable (Huber and Power 1985). It is possible that there may be differences in the perceived levels of market orientation among different functional groups (Gray et al. 1998) within same organizations. Furthermore, relying on data from a single respondent involves common method bias. Common method bias occurs when all constructs in the measurement model are evaluated by the same respondent (Matsuno and Mentzer 2000).

Finally, data is collected from both large and small companies. Although it provides an ability to generalize the results to entire service companies, small companies’ organizational structure might have different characteristics from large companies. On
the other hand, developing a market-oriented culture and engaging in market oriented behaviors is a requirement for both large and small companies and it is not an activity only for large and rich companies (Pelham and Wilson 1996, and Slater and Narver 1996). Analyzing market oriented behaviors for both small and large companies at the same time provides practitioners unique and valuable insights for developing relationships with customers.
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APPENDICES

Appendix 1 — Cover Letter

Dear Manager,

We would kindly ask you to participate in an academic research that is placed on the following link:

https://periwinkle.ts.odu.edu/cgi-bin/qwebcorporate.cgi?idx=4V54HA

You will receive a FREE copy of the research report -- it will give you insights that why some companies perform better than others in the same strategic group--. You will also have a chance to win one $500 gift certificate on Amazon.com in a random drawing.

The objective of this research is to understand how market oriented culture, along with organizational structure, shape business strategy in service firms. We are requesting your help in this doctoral dissertation study which will attempt to provide insight into new strategy development process of organizations. We believe that the results will be a great interest and benefit to you as well.

We would appreciate your filling out this questionnaire and giving us your honest opinions. The questionnaire is designed to be completed in about 15 minutes with most questions requiring you only to circle the appropriate response. Please keep in mind that there are no right or wrong answers for the questions.

All information gathered in this study will be held in strictly confidential. Results of the study will be tabulated and analyzed in aggregate form, so information about individual firms cannot be identified.

Because the survey is being sent to a select group of service organizations your participation is very important. Please try to answer all the questions, as incomplete data cannot be analyzed properly. We look forward to the opportunity to learn from your experience and thank you in advance for your participation.

Sincerely yours,

Dr. Kiran Karande, Ph.D. Omer Gokus
Associate Professor of Marketing Ph.D. Candidate
Old Dominion University, Norfolk Old Dominion University, Norfolk
Norfolk

P.S. Please contact Omer Gokus at 757-553-4784 or ogoku001@odu.edu if you have any questions or concerns about this survey.
Appendix 2: Survey Questionnaire

Dear Respondent:

Please read each question carefully and answer it completely. There is no right or wrong answers to these questions (seven-point scale with 1 indicating "strongly disagree" and 7 indicating "strongly agree" as anchors).

Section A:

1. To what extent does each statement listed below accurately describe your division or business unit's organizational culture? Please indicate your level of agreement or disagreement with each of the following statements.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

1. Our business objectives are driven primarily by customer satisfaction.

2. We constantly monitor our level of commitment and orientation to serving customers' needs.

3. Our business strategies are driven by our belief about how we can create greater value for customers.

4. We measure customer satisfaction systematically and frequently.

5. We give close attention to after-sales service.

6. Our strategy for competitive advantage is based on our understanding of customers' needs.

7. We target customers where we have an opportunity for competitive advantage.

8. Our salespeople regularly share information within our business concerning competitors' strategies.

9. We rapidly respond to competitive actions that threaten us.

10. Top management regularly discusses competitors' strengths and strategies.

11. Our top managers from every function visit our current and prospective customers.
12. We freely communicate information about our successful and unsuccessful customer experiences across all business functions.

13. All of our business functions (marketing/sales, manufacturing, R&D, finance/accounting, etc.) are integrated in serving the needs of our target markets.

14. All of our managers understand how everyone in our business can contribute to creating customer value.

15. We share resources with other business units.

2. To what extent does each statement listed below accurately describe your division or business unit's organizational structure? Please indicate your level of agreement or disagreement with each of the following statements.

16. There can be little action taken in the organization until a supervisor makes a decision.

17. A person who wants to make his or her own decisions would be quickly discouraged in the organization.

18. Even small matters have to be referred to someone with more authority for a final decision.

19. Any decision a person in the organization makes has to have his or her boss's approval.

20. Most people in the organization follow written work rules for their job.

21. How things are done in the organization is never left up to the person doing the work.

22. People in the organization are allowed to do almost as they please when performing their work. (RS)

23. Employees in this organization have very specific job responsibilities.

24. Most employees have jobs that require special skills.

25. Standardized training procedures exist for every job. (RS)

26. Written position descriptions are provided to specialists.

Section B:
For the following 11 questions, please choose one of the three response options listed for each question that define your division or business unit best.

27. In comparison to other organizations, the services which we provide to our customers are best characterized as:

{Choose one}
( ) Services which are more innovative, continually changing and broader in nature throughout the organization and marketplace.
( ) Services which are well focused, relatively stable and consistently defined throughout the organization and marketplace.
( ) Services which are fairly stable in certain units/departments and markets while innovative in other units/departments and markets.

28. In contrast to other organizations, my business unit has an image in the marketplace as which:

{Choose one}
( ) Has a reputation for being innovative and creative.
( ) Offers fewer, selective services which are high in quality.
( ) Adopts new ideas and innovations, but only after careful analysis.

29. The amount of time my organization spends on monitoring changes and trends in the marketplace can best be described as:

( ) Lengthy: We are continuously monitoring the marketplace.
( ) Minimal: We really don't spend much time monitoring the marketplace.
( ) Average: We spend a reasonable amount of time monitoring the marketplace.

30. In comparison to other organizations, the increase or losses in demand which we have experienced are due most probably to:

{Choose one}
( ) Our practice of aggressively entering into new markets with new types of service offerings and programs.
( ) Our practice of concentrating on more fully developing those markets which we currently serve.
( ) Our practice of assertively penetrating more deeply into markets we currently serve, while adopting new services only after a very careful review of their potential.

31. One of the most important goals in this organization, in comparison to other organizations, is our dedication and commitment to:

{Choose one}
() Insure that the people, resources and equipment required to develop new services and new markets are available and accessible.
() Keep costs under control.
() Analyze our costs and revenues carefully, to keep costs under control and to selectively generate new services or enter new markets.

32. In contrast to other organizations, the competencies (skills) which our managerial employees possess can best be characterized as:
{Choose one}
() Broad and entrepreneurial: their skills are diverse, flexible, and enable change to be created.
() Specialized: their skills are concentrated into one, or a few, specific areas.
() Analytical: their skills enable them to both identify trends and then develop new service offerings or markets.

33. The one thing that protects my organization from other companies is that we:
{Choose one}
() Are able to consistently develop new services and new markets.
() Are able to do a limited number of things exceptionally well.
() Are able to carefully analyze emerging trends and adopt only those which have proven potential.

34. More so than many other organizations, our management staff tends to concentrate on:
{Choose one}
() Developing new services and expanding into new markets or market segments.
() Maintaining a secure financial position through cost and quality control measures.
() Analyzing opportunities in the marketplace and selecting only those opportunities with proven potential, while protecting a secure financial position.

35. In contrast to many other organizations, my organization prepares for the future by:
{Choose one}
() Identifying trends and opportunities in the marketplace which can result in the creation of service offerings or programs which are new to the industry or which reach new markets.
() Identifying those problems which, if solved, will maintain and then improve our current service offerings and market position.
() Identifying those trends in the industry which other companies have proven possess long-term potential while also solving problems related to our current
service offerings and our current customers' needs.

36. In comparison to other organizations, the structure of my organization is:
   {Choose one}
   () Service or market oriented (i.e. customer service have marketing or accounting responsibilities).
   () Functional in nature (i.e. organized by department-marketing, accounting, personnel, etc.)
   () Primarily functional (departmental) in nature; however, a service or market oriented structure does exist in newer or larger service offering areas.

37. Unlike many other organizations, the procedures my organization uses to evaluate our performance are best described as:
   {Choose one}
   () Decentralized and participatory encouraging many organizational members to be involved.
   () Highly centralized and primarily the responsibility of senior management.
   () Centralized in more established service areas and more participatory in newer service areas.

Section C:
To what extent does each statement listed below currently describe the market environment of your division or business unit? Please indicate your level of agreement or disagreement with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>38. In our kind of business, customers' preferences change quite a bit over time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>39. Our customers tend to look for new service all the time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>40. We are witnessing demand for our services from customers who never bought them before.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>41. New customers tend to have the needs that are different from those of our existing customers.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>42. Competition is cutthroat for our business.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>43. There are many &quot;promotion wars&quot; in our business.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
44. Anything that one competitor can offer, others can match readily.

45. Price competition is a hallmark of our industry.

46. One hears of a new competitive move almost every day.

Section D:
In our principal served market over the past three years:

47. Our customers’ capability to negotiate for lower prices has substantially:

48. Our company’s capability to negotiate for lower prices from our suppliers has substantially:

49. The likelihood of a new competitor being able to learn satisfactory profits in our principal served market within three years of entry has substantially:

50. The average annual growth rate of total sales has substantially:

51. Research and development activity has substantially:

52. Service / production technology change has:

Section E:
Please consider the overall performance of your company in responding to these statements.

53. The overall performance of the business met expectations last year.

54. The overall performance of the business last
year exceeded that of our major competitors.

55. Top management was very satisfied with the overall performance of the business last year

Section F:
The following information will be used only for classification purposes, and will not be reported on an individual or company basis.

Which industry (s) is your division or business unit in?
{Enter text answer}__________________________

How long have you been working in this industry?
{Enter text answer}
[

How long have you been working in this company?
{Enter text answer}
[

What is your current title?
{Enter text answer}
[

How long have you been in your current position?
{Enter text answer}
[

What is the approximate age of your division or business unit? __________

If you like to enter to a random drawing for $500 gift certificate and to receive a copy of our findings, please give your e-mail address: ___________________________

How many employees does your division or business unit currently have?
(Please check one)
1-24  25-49  50-99  100-499  500-999
1000-4999 5000+

What is the amount of annual sales for your division or business unit last year? (Please check one)
<$5 million  >$5 million - <$25 million  >$25 million - <$100 million
>$100 million - <$500 million  >$500 million - <$1 billion  >$1 billion

THANK YOU FOR YOUR COOPERATION
Appendix 3.1: The selected sets of service businesses that were represented in the research sample.

<table>
<thead>
<tr>
<th>NAICS Code</th>
<th>NAICS Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>Finance &amp; insurance</td>
</tr>
<tr>
<td>522</td>
<td>Credit intermediation &amp; related activities</td>
</tr>
<tr>
<td>5221</td>
<td>Depository credit intermediation</td>
</tr>
<tr>
<td>52211</td>
<td>Commercial banking</td>
</tr>
<tr>
<td>52213</td>
<td>Credit unions</td>
</tr>
<tr>
<td>52221</td>
<td>Credit card issuing</td>
</tr>
<tr>
<td>523</td>
<td>Securities intermediation &amp; related activities</td>
</tr>
<tr>
<td>524</td>
<td>Insurance carriers &amp; related activities</td>
</tr>
<tr>
<td>5241</td>
<td>Insurance carriers</td>
</tr>
<tr>
<td>52411</td>
<td>Direct life, health, &amp; medical insurance carriers</td>
</tr>
<tr>
<td>52412</td>
<td>Other direct insurance carriers</td>
</tr>
<tr>
<td>52421</td>
<td>Insurance agencies &amp; brokerages</td>
</tr>
<tr>
<td>52429</td>
<td>Other insurance related activities</td>
</tr>
<tr>
<td>72</td>
<td>Accommodation &amp; foodservices</td>
</tr>
<tr>
<td>721</td>
<td>Accommodation</td>
</tr>
<tr>
<td>7211</td>
<td>Traveler accommodation</td>
</tr>
<tr>
<td>72111</td>
<td>Hotels (except casino hotels) &amp; motels</td>
</tr>
<tr>
<td>7211101</td>
<td>Hotels (except casino hotels) with 25 guestrooms or more</td>
</tr>
<tr>
<td>7211103</td>
<td>Motels</td>
</tr>
<tr>
<td>7211104</td>
<td>Motor hotels</td>
</tr>
<tr>
<td>72112</td>
<td>Casino hotels</td>
</tr>
<tr>
<td>721191</td>
<td>Bed &amp; breakfast inns</td>
</tr>
<tr>
<td>722</td>
<td>Foodservices &amp; drinking places</td>
</tr>
<tr>
<td>7221</td>
<td>Full-service restaurants</td>
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<tr>
<td>7222137</td>
<td>Other snack &amp; nonalcoholic beverage bars</td>
</tr>
<tr>
<td>7223</td>
<td>Special foodservices</td>
</tr>
<tr>
<td>72232</td>
<td>Caterers</td>
</tr>
<tr>
<td>7224</td>
<td>Drinking places (alcoholic beverages)</td>
</tr>
<tr>
<td>48-49</td>
<td>Transportation and Warehousing</td>
</tr>
<tr>
<td>482</td>
<td>Rail Transportation</td>
</tr>
<tr>
<td>484</td>
<td>Truck Transportation</td>
</tr>
<tr>
<td>4841</td>
<td>General Freight Trucking</td>
</tr>
<tr>
<td>48411</td>
<td>General Freight Trucking, Local</td>
</tr>
<tr>
<td>48412</td>
<td>General Freight Trucking, Long-Distance</td>
</tr>
<tr>
<td>484121</td>
<td>General Freight Trucking, Long-Distance, Truckload</td>
</tr>
<tr>
<td>484122</td>
<td>General Freight Trucking, Long-Distance, Less Than Truckload</td>
</tr>
<tr>
<td>4842</td>
<td>Specialized Freight Trucking</td>
</tr>
<tr>
<td>48421</td>
<td>Used Household and Office Goods Moving</td>
</tr>
<tr>
<td>48423</td>
<td>Specialized Freight (except Used Goods) Trucking, Long-Distance</td>
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</table>
485  Transit and Ground Passenger Transportation
485113 Bus and Other Motor Vehicle Transit Systems
485119 Other Urban Transit Systems
4852 Interurban and Rural Bus Transportation
4853 Taxi and Limousine Service
48531 Taxi Service
48532 Limousine Service
4854 School and Employee Bus Transportation
4855 Charter Bus Industry
4859 Other Transit and Ground Passenger Transportation
485991 Special Needs Transportation
485999 All Other Transit and Ground Passenger Transportation
487  Scenic and Sightseeing Transportation
4871 Scenic and Sightseeing Transportation, Land
4872 Scenic and Sightseeing Transportation, Water
4879 Scenic and Sightseeing Transportation, Other
53  Real Estate and Rental and Leasing
531  Real Estate
5311 Lessors of Real Estate
53111 Lessors of Residential Buildings and Dwellings
5313 Activities Related to Real Estate
53131 Real Estate Property Managers
531311 Residential Property Managers
53132 Offices of Real Estate Appraisers
532  Rental and Leasing Services
5321 Automotive Equipment Rental and Leasing
53211 Passenger Car Rental and Leasing
532111 Passenger Car Rental
532112 Passenger Car Leasing
53212 Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing
5322 Consumer Goods Rental
53221 Consumer Electronics and Appliances Rental
53222 Formal Wear and Costume Rental
532220 Formal Wear and Costume Rental
53223 Video Tape and Disc Rental
53229 Other Consumer Goods Rental
532291 Home Health Equipment Rental
532292 Recreational Goods Rental
Appendix 3.2: Sets of service businesses that were excluded from the research sample.

<table>
<thead>
<tr>
<th>NAICS Code</th>
<th>NAICS Title</th>
</tr>
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<tbody>
<tr>
<td>52212</td>
<td>Savings institutions</td>
</tr>
<tr>
<td>5222</td>
<td>Nondepository credit intermediation</td>
</tr>
<tr>
<td>5223</td>
<td>Activities related to credit intermediation</td>
</tr>
<tr>
<td>52231</td>
<td>Mortgage &amp; nonmortgage loan brokers</td>
</tr>
<tr>
<td>5231</td>
<td>Securities &amp; commodity contracts intermediation &amp; brokerage</td>
</tr>
<tr>
<td>52311</td>
<td>Investment banking &amp; securities dealing</td>
</tr>
<tr>
<td>7211105</td>
<td>Organization hotels</td>
</tr>
<tr>
<td>72119</td>
<td>Other traveler accommodation</td>
</tr>
<tr>
<td>481</td>
<td>Air Transportation</td>
</tr>
<tr>
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<td>Scheduled Air Transportation</td>
</tr>
<tr>
<td>481111</td>
<td>Scheduled Passenger Air Transportation</td>
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<tr>
<td>481112</td>
<td>Scheduled Freight Air Transportation</td>
</tr>
<tr>
<td>4812</td>
<td>Nonscheduled Air Transportation</td>
</tr>
<tr>
<td>481211</td>
<td>Nonscheduled Chartered Passenger Air Transportation</td>
</tr>
<tr>
<td>481212</td>
<td>Nonscheduled Chartered Freight Air Transportation</td>
</tr>
<tr>
<td>481219</td>
<td>Other Nonscheduled Air Transportation</td>
</tr>
<tr>
<td>483</td>
<td>Water Transportation</td>
</tr>
<tr>
<td>4831</td>
<td>Deep Sea, Coastal, and Great Lakes Water Transportation</td>
</tr>
<tr>
<td>4832</td>
<td>Inland Water Transportation</td>
</tr>
<tr>
<td>48321</td>
<td>Inland Water Transportation</td>
</tr>
<tr>
<td>4851</td>
<td>Urban Transit Systems</td>
</tr>
<tr>
<td>485111</td>
<td>Mixed Mode Transit Systems</td>
</tr>
<tr>
<td>485112</td>
<td>Commuter Rail Systems</td>
</tr>
<tr>
<td>488</td>
<td>Support Activities for Transportation</td>
</tr>
<tr>
<td>532299</td>
<td>All Other Consumer Goods Rental</td>
</tr>
<tr>
<td>5323</td>
<td>General Rental Centers</td>
</tr>
</tbody>
</table>
Appendix 4: Previous Studies

Narver and Slater (1990)
They only used one measure of performance. A positive association was identified between market orientation and return on assets (ROA), although they only used SBUs of one company (managers at the SBU level of 36 commodity firms and 74 non-commodity firms) operated in lumber industry which industry specific characteristics may be dominant.

Joworski and Kohli (1993)
Both subjective performance and objective performance (market share) measures are used. Two different samples were used in their study for validation from different industries. Market orientation and market share is not significant.
They concluded that market share is not an appropriate indicator of performance. First, low market share companies may outperform high market share companies. Second, there is a lag in the effect of market orientation on market share.

Ruekert (1992)
This study was limited to only two SBUs; the higher performing SBU was found ho have a higher level of market orientation than the lower performing SBU.

Hart and Diamantopoulos (1993)
Only weak evidence for a positive association between market orientation and performance was found. Measure of market orientation is not well established. Their data is from earlier study with different research objectives.

Greenley (1995)
They used ROI and sales growth as objective measures and new product success as a subjective performance measures. Their study did not support the relation for three measures. They concluded that it is because of lagged relationship. They used different industries from UK.

Slater and Narver (1994)
In a follow-up study, Slater and Narver (1994) extended the previous study to include assessment of two additional objective performance measures - new product success and sales growth - besides ROI. Because the two studies share the same data, it is no surprise that the findings are consistent with the findings of Narver and Slater (1990). The study supported the hypothesized positive relationship between market orientation and the three objective performance measures.

Deshpande, Farley and Webster (1993)
They studied the impact of customer orientation in conjunction with innovation and organizational culture on performance of Japanese firms. Their measure of performance can also be classified as objective measure of performance - it was a composite of
profitability, size, market share, and growth rate. In line with Jaworski and Kohli (1993), this study also did not find evidence to support the assumed positive relationship between marketers' perceptions of customer orientation and performance.

Han, Kim and Srivastava (1998)
They questioned the weak, mixed, or insignificant findings pertaining to the hypothesized positive association between market orientation and performance in the studies described above. They proposed a framework in which the relationship between market orientation and performance is mediated through innovation. The data for the study were obtained via a survey of the person in-charge of marketing operations at the senior management level of 134 banks located in a mid-western state in the USA. The results indicate that there is no significant direct relationship between market orientation and objective performance. However, they report a significant positive relationship between market orientation and innovation and between innovation and objective performance.

Agarwal, Erramilli and Dev (2003)
They used three objective and three subjective performances measures. According to the Baron and Kenny (1986) procedure for their analysis, innovation mediates Market orientation and objective performance connection.

(According to this method, it must be demonstrated that market orientation (which is an explanatory variable) is related independently to both innovation (which is a mediator variable) and performance (which is the dependent variable). This is important in order to demonstrate that market orientation is related to both concepts. To prove that innovation mediates the impact of market orientation on performance, the regression coefficient associated with market orientation should be insignificant when both innovation and market orientation are simultaneously included as explanatory variables in a regression equation. The results suggest that, although market orientation is related to performance directly, it does not explain the variance in performance in the presence of innovation.)

Im and Workman (2004)
They used four objective and one subjective performance measures and collect their data from US high technology manufacturing firms. They employed path coefficient using maximum likelihood estimation in the structural equation modeling method. As a result, indirect effects thorough NP (new products) and MP (marketing program) creativity are more dominant than the direct effect in explaining the total effect between market orientation and objective performance measures.
Appendix 5: The Applications Narver and Slater’s (1990) Market Orientation Scale in Service Industry:

<table>
<thead>
<tr>
<th>Study</th>
<th>Empirical basis</th>
<th>Measure used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au and Tse (1995)</td>
<td>Single industry survey of 189 hotels in Hong Kong (41) and in New Zealand (148).</td>
<td>Adaptation of Narver and Slater (1990)</td>
</tr>
<tr>
<td>Lado et. al. (1998)</td>
<td>Single industry survey of insurance firms in Belgium (34) and in Spain (32).</td>
<td>Adaptation of Narver and Slater (1990)</td>
</tr>
</tbody>
</table>

In the creation of Table 1, three literature review studies on market orientation were employed by combining different aspects of them. Those studies are 1) Langerak (2003), 2) Esteban, Millan, Molina and Consuegra (2002), and 3) McNaughton, Osborne and Imrie (2002).
<table>
<thead>
<tr>
<th>Study</th>
<th>Survey Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Survey Description</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Hooley et al. (2000)</td>
<td>Multiple-industry survey of 629 Slovenian, 589 Hungarian and 401 Polish firms.</td>
<td></td>
</tr>
<tr>
<td>Narver and Slater (1990)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 6: The Pre-Test Results

Market Orientation Scale

Based on the pre-test results, it was verified that customer orientation, competitor orientation and interfunctional coordination are suitable to the context of interest and no refinement is necessary. Table below shows a summary of the responses styles for all items of each of the twelve managers interviewed. “Unaided answers” column represents that the manager brought up an item without reminding it during the conversation. “Aided answers” column represents that the manager agreed and mentioned after the item was reminded).

**Customer Orientation (6 items):** In parallel to the literature, in-depth interviews revealed that customer orientation is an important construct for service industries. The following section provides more detailed explanation about respondents’ answers for each scale item.

*Customer satisfaction objectives:* All managers identified customer satisfaction as a primary driver of business objectives for their service businesses.

*Monitor commitment:* Although all managers found that it was very important to monitor the level of commitment and customer needs, they did not seem to use a consistent tool for monitoring. Some use emails, phone calls; some use regular meetings with contact employees for this purpose.
Create customer value: All respondents agreed that creating greater customer value was the basis for their business strategy. Some mentioned cost cutting, some mentioned innovative ideas for this purpose.

Measure customer satisfaction: Although all managers agreed that systematically measuring customer satisfaction is an important manifestation of customer orientation, only three out of twelve managers stated that they used survey methods to monitor customer satisfaction.

After sales services: Many managers indicated that they paid attention to after-sales service. However, three managers did not agree with this item. They emphasized that since production and satisfaction took place at the same time in the service industry, they said that they focused on service delivery and customer interaction rather than after sales services.

Understand customer needs: All managers agreed that their strategy for competitive advantage is based on their understanding of customers’ needs.

Competitor Orientation (4 items): Similar to customer orientation, competitor orientation as an organizational culture, applied in the context of interest. All of its four items were found to be relevant in the context of service sectors: The following section provides more detailed explanation about respondents’ answers for each scale item.

Target opportunities for competitive advantage: About targeting new customers if they see an opportunity; although many respondents did not come up with this item while they talk about their application, when I read them if it can be manifested they strongly agreed with it.
Salespeople share competitor information: Almost all managers (10 out of 12) agreed that they were concerned about competitor strategies and actions, and consequently they shared information about competitor strategies. One respondent discussed that they considered competitors strategies and latent actions as a parameter in the new service decision process.

Respond rapidly to competitors’ actions: Responding to competitive actions was an important manifestation to most of the managers in the service industry.

Top managers discuss competitors’ strategies: All managers agreed the item that top management regularly discusses competitors’ strengths and strategies. One manager emphasized that competitor strategies and actions were the first thing they looked at, if they saw any drop in sales,

One manager mentioned that competitive hostility is a big concern and it should be itemized for competitor orientation. However, later interviews did not find support for this view.

Interfunctional Coordination (5 items): Similar to customer orientation and competitor orientation, interfunctional coordination was found to be applicable in the context of service. The following section provides more detailed explanation about respondents’ answers for each scale item.

Interfunctional customer calls: Although all managers agreed that top managers from every business function visit current and prospective customers, they emphasized it was hard to visit them on a regular basis. Therefore, they suggested removing the word “regularly” from the item.
Information shared among functions: Managers agreed that communicating information about successful and unsuccessful customer experiences across all business functions was an important manifestation of interfunctional coordination. One manager discussed that they usually bring out successful business experiences and ignore unsuccessful ones. This comment has been discussed with the rest of the four managers to understand if they agreed with this respondent, however other managers stated that they did not agree with this comment.

Functional integration in strategy: Integration of all business functions (marketing / sales, manufacturing, R&D, finance / accounting, etc) in order to serve the needs of target markets was also found relevant by the managers. They did not raise any concern about this item. Two managers stated that it was the main discussion in managers meetings.

All functions contribute to customer value: Although majority of managers agree that managers know how everyone contributes to creating customer value, three managers discussed that it might not be manifestation of interfunctional coordination. Their views were not shared by the rest of the managers.

Share resources with other business units: About sharing resources with other business units, four managers stated that they do not have any other business units in their organizations. Two managers indicated that they shared resources under the approval of corporate managers. But they all agreed with this item as a manifestation of interfunctional coordination.

In summary, as a large body of literature indicated (Esteban, Millan, Molina and Martin-Consuegra 2002; Kirca, H. Ahmet, S. Jayachanran and W. O. Bearden 2005),
qualitative research with twelve respondents indicated that the three dimensions of market orientation applied in the context of interest, and almost all of their manifestations except one item, ("interfunctional customer calls" is partly removed from the interfunctional coordination scale), were found to be relevant.

**Strategy Types Scale**

The results of in-depth interviews with twelve managers indicated that all eleven manifestations of strategy types were applicable in the service context (please see Appendix 7 for managers' responses for each scale item).

The process started with by giving a short definition of each of three strategy types and asking each manager if he followed any of this business strategy in his organization and how it is applied. During the conversation if respondents did not mention any item, I reminded them whether the particular item was applied. If the answer was no, I asked them if it could be applicable in other service organizations. Finally, they were asked if they could think of other ways in which these strategy types were manifested in their organization.

*Item 1 - In comparison to other organizations, the services which we provide to our customers are best characterized as:*

The characteristics of the service (innovative or focused, stable) have been mentioned by all managers during the interviews.

*Item 2 - In contrast to other organizations, my business unit has an image in the marketplace as which:*
The business image was mentioned by most of the managers. When I reminded it for those who did not mention the item, they agreed that it should have been a manifestation of strategy types.

**Item 3 - The amount of time my division or business unit spends on monitoring changes and trends in the marketplace can best be described as:**

Although this item was not mentioned by eight managers, “the amount of time monitoring changes in the marketplace” was recognized by all managers and they agreed that it should be a manifestation of strategy types.

**Item 4 - In comparison to other organizations, the increase or losses in demand which we have experienced are due most probably to:**

Although this item was not mentioned by many managers, they all agreed that it should be a manifestation of strategy types.

**Item 5 - One of the most important goals in this division or business unit, in comparison to other organizations, is our dedication and commitment to:**

This is the second item that was mentioned by all managers during the interviews.

**Item 6 - In contrast to other organizations, the competencies (skills) which our managerial employees possess can best be characterized as:**

Nine managers did not mention competencies of managers to be a manifestation of strategy types. But after a short reminder, they all agreed that this item should be presented as a manifestation of strategy types.

**Item 7 - The one thing that protects my organization from other companies is that we:**
None of the managers mentioned this item to be a manifestation of strategy types. After a short reminder, three managers out of twelve still did not agreed that this item should be presented as a manifestation of strategy types.

Item 8 - *More so than many other organizations, our management staff tends to concentrate on:*

Most of the managers did not mention the concentration of management staff specifically. After a short reminder, they all agreed that this item should be presented as a manifestation of strategy types.

Item 9 - *In contrast to many other organizations, my division or business unit prepares for the future by:*

Preparation for the future was not also mentioned by any manager during the interview, but they all agreed that this item should be presented as a manifestation of strategy types.

Item 10 - *In comparison to other organizations, the structure of my organization is:*

Four managers mentioned the structure of their organization when they were talking about application of their strategy types. After a short reminder others also agreed that this item should be presented as a manifestation of strategy types.

Item 11 - *Unlike many other organizations, the procedures my organization uses to evaluate our performance are best described as:*

Seven managers mentioned centralization-decentralization of their organization when they were talking about application of their strategy types. After a short reminder others also agreed that this item should be presented as a manifestation of strategy types.
No additional items were suggested by the twelve managers that were interviewed. In summary, the results of the qualitative research indicated that the eleven items used to measure the three strategy types applied in the service context.
Appendix 7: Managers’ Response Styles for Each Scale Items

<table>
<thead>
<tr>
<th>Items</th>
<th>Unaided answers</th>
<th>Aided answers</th>
<th>Partly Disagreed</th>
<th>Disagreed</th>
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<td>Customer Orientation</td>
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<td>Customer satisfaction objectives</td>
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<tr>
<td>Monitor commitment</td>
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<td>-</td>
</tr>
<tr>
<td>Create customer value</td>
<td>12</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Measure customer satisfaction</td>
<td>9</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>After sales services</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Understand customer needs</td>
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<td>-</td>
<td>-</td>
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<td>Competitor Orientation</td>
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<td>Target opportunities for competitive advantage</td>
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<td></td>
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<tr>
<td>Salespeople share competitor information</td>
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<tr>
<td>Respond rapidly to competitors’ actions</td>
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<td></td>
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<tr>
<td>Top managers discuss competitors’ strategies</td>
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<td>5</td>
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<td>Interfunctional Coordination</td>
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<td>Interfunctional customer calls</td>
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<tr>
<td>Functional integration in strategy</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>All functions contribute to customer value</td>
<td>6</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Share resources with other business units</td>
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<td>10</td>
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<tr>
<td>Strategy Types</td>
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<td>Entrepreneurial—product market domain</td>
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<td>Entrepreneurial—success posture</td>
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<td>Entrepreneurial—surveillance</td>
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<td>8</td>
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<td>Engineering—technological breadth</td>
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<td>Engineering—technological buffers</td>
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<td>-</td>
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<tr>
<td>Administrative—dominant coalition</td>
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<td>-</td>
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<td>Administrative—planning</td>
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<td>Administrative—structure</td>
<td>4</td>
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<tr>
<td>Administrative—control</td>
<td>7</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
VITA

Educational Background

2008  Ph.D. Old Dominion University, Norfolk, VA
      Business Administration/Marketing

1994  MBA Selcuk University, Konya, Turkey
      Finance

1989  B.Sc. Ankara University, Ankara, Turkey
      Public Finance

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Jeffrey Miller Catering Company  Chief of Staff
Gence Construction Corporation  Accountant

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Market Orientation
Organizational Performance Implications for Service Companies
Marketing Strategy

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Recipient of a scholarship from Yapi Kredi Bank to pursue college education