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MARKET AND CUSTOMER KNOWLEDGE AND THE ROLE OF VALUE IN FIRM PERFORMANCE

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ABSTRACT

Market and Customer Knowledge and the Role of Value in Firm Performance provides a multi-tiered look at how and when market orientation impacts seller performance. While market orientation is generally accepted as a key factor in above-average firm or SBU performance, the published literature has numerous examples of inconsistent research results.

In the first essay, I look narrowly at the impact of market orientation on seller performance and find that market orientation impacts performance through its role in helping firms create offerings that customers value. Value partially mediates the market-orientation-to-performance relationship. Besides excluding value as a potential mediator, researchers have been using the terms and scales for market orientation and customer orientation virtually interchangeably.

In the second essay, I attempt to resolve what turns out to be more than a semantic issue by developing two separate scales, for market orientation and customer orientation. The two scales are not interchangeable and have different roles in predicting firm performance. Through these two essays, I offer a more complete model of how and when knowing about a firm's market and/or customers will lead to above-average performance.

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I would like to thank my advisor, Bill Ross, for all his help and encouragement as I pursued this long-term, long-distance endeavor. Also, I never would have made this journey without the support of my friend, Meg Meloy, who always took time to ask tough questions, celebrate any victory and provide needed wisdom for over 20 years! Throughout the process, my children, Lincoln and Lydia, have provided needed laughter many times. This is for them. Thank you also to my husband, Dan, especially for taking the kids to the park many mornings so that I could work in peace.

FOREWORD

Competition in U.S. markets continues to increase as barriers to trade are broken down and regulations relaxed. The old rules of competition were for relatively stable environments, and with change occurring slowly, firms had the luxury of watching the competition and benchmarking to what competitors were doing. Firms themselves helped hold down the rate of competition and change in their industries by using barriers to entry and tacit collusion. Such moderately competitive environments allowed firms to maintain long-term sustainable advantage and profits (D'Aveni, 1995). However, over the last 40 years, many markets have become increasingly competitive (Thomas, 1996), allowing only short periods of advantage and profit as competitors are always working to catch up or outmaneuver each other (D'Aveni, 1995). As competition intensifies, sellers attempt to understand the changing markets and determine what market drivers will enhance seller performance. Temporarily, concentrating on operational effectiveness provided a competitive advantage for sellers. Focusing on core competencies, outsourcing, investing in IT, relentlessly benchmarking against key competitors, and copying best practices have become the norm for companies. Unfortunately, this focus on operational effectiveness and the easily visible and imitable processes promoted by benchmarking does not provide sustainable comparative advantage (Porter, 1996). Instead, sellers find themselves in an ever-escalating competitive environment.

In the search for sustainable competitive advantage, sellers must understand market drivers that are not easily visible or imitable by competitors. To do this, sellers

must develop resources, processes, and/or capabilities that are unique to the firm. Unlike the Theory of Perfect Competition, which assumes homogeneous and mobile factor markets, the Resource Based View (RBV) assumes heterogeneous and immobile factor markets (Priem & Butler, 2001). By acknowledging that firms have different inputs and processes which translate into different resources and capabilities, firms can develop organizational processes and capabilities that are valuable, rare, inimitable, and not substitutable (Barney, 1991). These processes and capabilities that others cannot easily observe or understand allow sellers to have a competitive advantage that other sellers cannot copy, driving enhanced seller performance. These market drivers, when understood and practiced by sellers, become resources or competencies that others have difficulty viewing or imitating. Market orientation is one possible resource (Morgan, Vorhies, & Mason, 2009). While benchmarking and operational effectiveness promote performing functions in the same or very similar ways as competitors, with inimitable competencies, sellers can achieve competitive advantage.

Each of the two essays included in the dissertation build on the importance and role of market orientation on seller performance. While the first essay looks at a narrow area of marketing, market orientation, the next essay builds on the first and expands the focus of the dissertation. A first look at market orientation and its impact on seller performance reveals that the role of customer value had been relegated to a minor position within the market orientation scale. As the importance of creating offerings that customers value becomes widely accepted (Hunt & Duhan, 2002), Essay #1 takes a first step at explaining how market orientation impacts performance by looking at the role of value.

When studying the role of value and market orientation in determining seller performance, inconsistencies across past academic studies became apparent. Up to now, market orientation and customer orientation have been used interchangeably, but I argue that they, in fact, have two different meanings. Additionally, work by Christensen and Bower (1996) concludes that firms that are close to their customers actually under-perform those that are not close to their customers. In Essay #2, then, I first attempt to unravel the differences between market and customer orientation. Then, once there is a clear differentiation between the two types of orientation, I determine under what conditions being close to customers is ideal and when it is not. Building on Essay #1, I show how both market orientation and customer orientation individually impact value, innovation, and then seller performance.

In order to empirically test the theories and hypotheses in both essays, I collected data from a national survey of publicly traded, single SBU firms. Using publicly traded, single SBU firms allows me to combine the survey data with the financial data that the firms are required to file with the U.S. Securities and Exchange Commission (SEC). The models for both essays are estimated using partial least squares (PLS).

In the following sections, I discuss each essay in detail.

ESSAY #1

To develop competitive advantage, a seller must recognize and use a unique capability, resource, or process. Academic studies have identified some of these potential tools. Naming all capabilities, resources, or processes is impossible (Day, 1994), but some that have been identified are assets, patents, firm attributes, information, and/or knowledge. One other capability, market orientation, has been widely studied.

Yet, results from the academic literature show that while market orientation is widely accepted to be a market driver that enhances firm performance (Ellis, 2006), study results are still inconsistent. When investigating the impact of market orientation on firm or Strategic Business Unit (SBU) performance, some studies have found mixed results (Harris, 2001; Jaworski & Kohli, 1993), while others have found non-significant or negative relationships (Greenley, 1995; Voss & Voss, 2000). Though the first studies hypothesized a direct link from market orientation to performance, later studies have looked for a moderated link (Chou, 2009; Matsuno, Mentzer, & Rentz, 2000) or a mediated link (Hult, Ketchen, & Slater, 2005). Even these augmented studies have not completely resolved the inconsistencies in the literature.

Until now, creating value for the customer has simply been an item embedded in the market orientation scale. Recently, however, value, or customer value delivery, has come to the forefront as not only a part of the market orientation scale, but a distinct factor in explaining competitive advantage, especially in the increasingly transparent markets that firms compete in today. As Slater and Narver (1998) suggest, the objective of market orientation is to create value for customers; in Essay #1 I remove value from the market orientation scale and build a separate value measure with discriminant validity. When value is removed from the market orientation scale and modeled as a separate factor, the data support the hypotheses that while market orientation does lead to enhanced seller performance, the relationship is partially mediated by value. Therefore, a firm taking a market oriented approach gains knowledge of the market and customer to aid in creating offerings that customers value, which in turn leads to improved performance.

ESSAY #2

One way to resolve past inconsistencies noted in Essay #1 is to remove value from the market oriented scale to a separate factor. However, another potential problem needs to be resolved. Past studies have generally used the terms and scales for market orientation and customer orientation interchangeably. Indeed, a 1996 MSI study (Deshpandé & Farley, 1996) showed that the most commonly used market orientation and customer orientation scales were highly correlated and all helped explain enhanced seller performance. The results of the study appear to have granted researchers license to use market orientation and customer orientation interchangeably. In fact, the issue might have been left as a problem of semantics if a piece by Christensen and Bower (Christensen & Bower, 1996) had not concluded that firms that are too close to their customers had poor performance (as compared to those that were less close).

The problem then appears to be more than semantic. In order to clarify the issue, Slater and Narver (1998) posit that a clear differentiation between customer orientation and market orientation exists and that the differences should be developed and studied. To tease out these separate meanings, I argue that customer orientation should be defined as a short-term focus on meeting the expressed needs of current customers, and I call it a "customer-led" approach. A market oriented-focus, on the other hand, tries to elicit latent and future needs of both current and prospective customers in the long term, predicting how the market will or will not be able to meet those needs. Depending on the goals and market environment of a seller, a balance between the two types of orientation must be struck.

Essay #2 attempts to resolve the debate between market orientation and customer orientation by clarifying the differences and synergies between the two. To test the impact of each type of orientation, both long and short-term performance measures are included in the study. To create the scales, I culled items from exiting market orientation and customer orientation scales and created ones based on marketing theory. After multiple rounds of pre-testing, two scales emerged. One has a short-term customer focus, and I label it "customer led." The second scale is comprised of items with a longer-term and market focus; therefore, I label the second one "market-oriented."

An additional area of inconsistency is the moderating role of market environment on market orientation's impact on performance. Even though previous research has been inconsistent about the role of market environment when looking only at market orientation's impact on performance, I hypothesize that the balance a seller must strike between being customer-led and having a market orientation depends on the market environment. Therefore, variables for market environment are included in the model. By developing separate scales for both customer led and market oriented, I am able to assess their differing impacts on firm performance. As value was found in Essay #1 to be a mediator in the market-orientation-to-performance relationship and previous research showed innovation to mediate the market-orientation-to-performance relationship (Han, Kim, & Srivastava, 1998), both are included in the model as mediators. I find that value mediates the customer-led-to-short-term-performance relationship, but not the ones to long-term performance or objective performance. In the case of innovation, while both customer led and market oriented are statistically significant estimators of innovation, innovation is not a statistically significant estimator of performance.

CONCLUSION

The two essays that comprise *Market and Customer Knowledge and the Role of Value in Firm Performance* are designed to build on the findings of each of the essays, yet individually each stands alone by answering unique hypotheses. Market orientation and its impact on firm performance has been widely studied over the past two decades, and this dissertation seeks to resolve past inconsistencies in findings about the impact of market orientation:

- under which market conditions does market orientation significantly impact seller performance?
- when is the impact of market orientation non-significant?

First, in Essay #1, I find that creating customer value is an important role for market orientation, and I remove value from the market orientation scale and create a separate factor to measure value. In order to delve into market orientation's role, the differences between market orientation and customer orientation are clearly delineated and tested in Essay #2. Both singly and together, the essays that follow offer deeper understanding and clarification of the role of market and customer orientation in enhancing seller performance.

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MARKET ORIENTATION AND PERFORMANCE: THE ROLE OF VALUE

Essay 1

1.1. INTRODUCTION: Market Orientation and Performance: The Role of Value

Driven by increasingly global and competitive markets, organizations are striving to better understand the drivers of market performance. Companies continue to search for the next area of competitive advantage. Researchers have recognized market orientation and an outward customer focus as key drivers in market performance (Day, 1990; Ruekert, 1992). Even so, past research into market orientation and firm or strategic business unit (SBU) performance has shown inconsistencies in predicting performance. Delivery of customer value, a concept that I will detail later in the chapter, is coming to the forefront as a way to gain competitive advantage. However, to date, most evidence is anecdotal or speculative, based on a few well-publicized cases. While market-orientation scales have included perceived value, relegating this core issue to one or two questions in a scale has led to insufficient investigation of the importance of customer value in explaining firm or SBU performance. This study fills a void in the marketing literature by explicitly bringing customer value to the forefront in the chain of market orientation to performance, and by establishing the increased explanatory power of a model that separates customer value from market orientation. The analyses I performed also shed light on the importance of using a scale that divides market orientation into multiple factors. Additionally, this study is the first to include objective performance data from 10K reports, required by the SEC (Securities Exchange Commission) and filed by single SBU firms. Using this data mitigates concerns about mono-method bias.

Over the years, numerous studies have focused on defining market orientation and its link to performance at the firm or SBU level (Dawes, 2000; Kumar, Subramanian, &

Yauger, 1998; Narver & Slater, 1990). Some researchers hypothesize that the link from market orientation to performance is direct (Narver & Slater, 1990), while others have looked for a moderated link (Jaworski & Kohli, 1993; Matsuno & Mentzer, 2000; Slater & Narver, 1994), and still others have hypothesized a mediated link (Han et al., 1998). In explaining the impact of market orientation on performance, previous studies have recognized the importance of value or creating value for the customer (Day & Wensley, 1988; Narver & Slater, 1990). However, these studies have not examined value separately from the orientation scale.

At the same time, recognition has increased regarding the importance of value as a competitive advantage in increasingly global and transparent markets (Hunt & Duhan, 2002; Sawhney, 2002; Woodruff, 1997). In the 1930s, Chamberlin first advanced his theory of monopolistic competition, which recognized the importance of value in determining firm performance (Chamberlin, 1965). More recently, resource advantage theory (R-A theory) explicitly discusses firms' comparative advantage for producing market offerings that have *value* for customers (Hunt & Duhan, 2002; Hunt & Morgan, 1995). The ability to create value for the customer is part of the market-orientation scales (Deshpandé, Farley, & Webster, 1993; Han et al., 1998; Jaworski & Kohli, 1993; Narver & Slater, 1990), suggesting implicitly that value is part of a market-orientation scale. But is this the best manner of incorporating value in the orientation-to-performance model? Slater and Narver (1998) argue that the objective of market orientation is to create offerings that deliver value for customers, which in turn would suggest that value is a mediating variable between market orientation and firm performance. Therefore, rather

than including value in the orientation scale, it may be preferable to think of value as a separate construct that provides a necessary link between orientation and performance.

There is evidence to suggest the need for a model that more accurately describes the role of value and orientation on performance. While researchers have generally accepted the connection of orientation-to-firm performance (Deshpandé & Farley, 1996; Kumar et al., 1998; Wood, Bhuian, & Kiecker, 2000), some studies have found mixed results (Harris, 2001; Jaworski & Kohli, 1993), and others have found insignificant or negative relationships (Greenley, 1995; Voss & Voss, 2000). Clearly, a model that more consistently describes the nature of the relationship between market orientation and firm performance or SBU performance is desirable. Therefore, to enhance the traditional market-orientation-to-firm-performance model, I include a value construct, as suggested by resource advantage theory (R-A). This will improve the knowledge and understanding of how and when market orientation impacts performance.

This chapter investigates the role of value in firm or SBU performance, specifically value's role in the orientation-to-performance link. I start by exploring the theoretical and anecdotal evidence for including value as the link between market orientation and performance. Then, I bring together the multiple definitions of value used in the marketing literature and define value for the purposes of this paper. I also include a review of the inconsistencies and discrepancies of past market-orientation studies.

Given the importance of value in developing a competitive advantage, I next hypothesize that value should be removed from the market-orientation scales and promoted to a mediational position between orientation and performance. I perform empirical testing with self-reported data from a national survey of publicly traded single

SBU firms in the US and objective performance data, showing that value mediates the market-orientation-to-performance relationship with the self-reported performance measures, but not with the objective performance measures. The empirical evidence highlights the enhanced explanatory powers of the mediated model. The results increase understanding of firm and SBU performance by explicitly including value as a mediator between market orientation and performance. The R^2s of the objective performance measure variable is lower than the R^2s of the self-reported performance measures in both the short- and long-term. In the section "Limitations and Implications for Future Research" I give possible reasons for this relationship.

Then—in contrast with most of the marketing and management literature which has focused on market orientation as a one-factor scale—I examine the three components of market orientation (intelligence generation, intelligence dissemination, and responsiveness) proposed by Kohli and Jaworski (1993) and their individual effects on the performance variables. By examining the three components, I seek to increase understanding of why firms with similar levels of market orientation (as measured on a one-factor scale) may have differing performance outcomes. This study aims to contribute to the published market-orientation literature in the following four ways:

1. by investigating the link between the complete market-orientation scale and short- and long-term self-reported performance measures
2. by examining the mediating impact of value
3. by assessing the consequences of the individual components of market orientation on three measures of firm performance
4. by testing the relationship when objective financial data is used to measure performance

1.2. BACKGROUND AND DEVELOPMENT

1.2.1 Theoretical Development

The resource-based view (RBV) of the firm provides a theoretical foundation from which to investigate the market-orientation-to-performance model. As with most theories of the firm, the RBV seeks to explain why some companies enjoy superior financial performance. Rather than examining the product side of firms, the RBV focuses on the resource side of the firm and the relationship between resources and profitability (Wernerfelt, 1984). Compared to neoclassical theory or the Theory of Perfect Competition, both of which assume homogeneous and mobile factor markets, the RBV assumes heterogeneous and immobile factor markets (Priem & Butler, 2001). The difference lies in looking at the resource side of firms and allowing firms to have different inputs and resources. Resources can be common across firms (such as a software package or machine). However, if the resource is valuable, rare, inimitable, and non-substitutable (VRIN), it can be the source of a sustainable competitive advantage, which in turn can lead to superior firm performance (Barney, 1991). VRIN resources are sometimes referred to as “strategic” resources; they create a competitive advantage which increases firm performance. Resources that are not VRIN do not lead to a sustainable competitive advantage as other firms can easily obtain or copy the resource. Some examples of strategic resources are assets, patents, copyrights, capabilities, organizational processes, firm attributes, and information or knowledge (Day, 1994). Of these resources, one of the more abstract is capabilities. Businesses develop their own set of capabilities based on the competitive environment. A market orientation, an asset based on market

knowledge, is one possible strategic resource (Morgan et al., 2009). Market orientation is VRIN: it is *v*aluable because it improves product quality and enables firms to better serve their markets; *r*are because little is known about creation and implementation of a market orientation; *i*nimitable and *n*on-substitutable because it is complex and embedded in the firm. Market orientation is made up of company values, beliefs, and culture (Zhou, Brown, Dev, & Agarwal, 2007). It is difficult for competitors to see and copy (Slater & Narver, 1995). Through intimate knowledge of customers' latent and expressed needs, knowledge of the competitors in the marketplace, and sharing of information throughout the organization, market-oriented firms can outperform rivals with a lesser market orientation. Some would argue that a resource-based view is tautological (Connor, 2007), however, Hult et al. (2005) suggest that the misunderstanding is because previous studies have focused on the direct link between strategic resources and performance. Instead, future researchers need to investigate *how* market orientation leads to enhanced performance. In this essay, I investigate how market orientation leads to enhanced firm performance through creating products and services that customers value.

1.2.2 Evidence for a mediated model

While researchers usually assume that the market-orientation-to-performance relationship is direct, there is considerable evidence calling for a mediated model. Day and Wensley (1988) first made the case for a value-mediated model when they hypothesized that strategic resources, such as a superior market orientation, lead to positional advantages (the mediator), which themselves lead to enhanced performance.

Day (1988) has suggested both superior customer value and lower relative costs as positional advantages or mediators.

Building on the positional advantage idea of Day and Wensley (1988), Hult and Ketchen (2001) empirically tested a mediated model in which market orientation, entrepreneurship, innovativeness, and organizational learning all lead to positional advantage, which in turn influences performance. They found that each of the four first-order indicators had a positive and significant relationship with the latent construct—positional advantage—that was not measured directly. Positional advantage had a positive and significant impact on all three performance measures tested. Their results support the theory that the path from market orientation to performance is not direct but rather is a more intricate one (Hult & Ketchen, 2001). Hult et al. (2005) later tested organizational responsiveness as a mediator and found that it fully mediates the market-orientation-to-performance path. Organizational learning emerged in a mediational position in a later study (Jiménez-Jiménez & Cegarra-Navarro, 2007).

Slater and Narver proposed that innovation mediates the market-orientation-to-performance relationship (Slater & Narver, 1994). Han et al. (1998) investigated this more intricate relationship by theorizing that innovation mediates orientation and performance. The authors built on two previous ideas: market orientation leads to innovation, and innovation leads to superior performance. However, no previous research had tested the orientation-to-innovation-to-performance relationship. The researchers tested the impact of orientation on performance with innovation as a mediator.

While the researchers found that innovation mediates the orientation-to-performance relationship (Han et al., 1998), not all research has consistently and fully

replicated their results. Previously, some researchers found innovation to be only a partial mediator (Baker & Sinkula, 1999), and while different researchers found innovation to fully mediate the relationship (Matear, Osborne, Garret, & Gray, 2002). A study by Siguaw (1998) found customer trust in suppliers, a relationship indicator, to be a positive and significant mediator, but the same study found another relationship indicator, customer willingness to be cooperative with suppliers, a negative mediator. Another potential mediator, product quality, was only a partial mediator (Chang & Chen, 1998).

While mediation by innovation had been studied in multiple published studies, I could find no published research including value as a mediator. Yet, evidence suggests that value is another possible mediator in the market orientation-to-performance relationship. As a first step to including value in the market orientation literature, I focus this first essay solely on the mediational role of value. Recall that superior customer value is one positional advantage described by Day and Wensley's (1988) three-stage model (mentioned earlier) that includes superior customer value as the step between sources of advantage, such as superior market orientation and performance. R-A theory (Hunt & Morgan, 1996) involves the use of resources to create offerings that have value for customers. This research supports the idea that market orientation is a resource if it provides information to the company that is then used to produce products that customers value (Hunt & Morgan, 1995). The key to R-A theory is developing market offerings that offer value. Slater and Narver (1998) also explicitly detail the objective of market orientation: to create value. Creation of value translates to competitive advantage. Value creation, then, is the outcome of market orientation, and value creation leads to enhanced firm performance.

If we consider that R-A theory explicitly includes creation of value as a precursor to superior firm performance (Hunt & Morgan, 1996), and that the objective of market orientation is to create customer value (Slater & Narver, 1999), we can combine this evidence with RBV to lead us to hypothesize that value should be removed from the general orientation scales and placed in a mediating role between orientation and performance. Would such a model better represent market orientation's influence on performance through creation of perceived value?

1.2.3 What is perceived value?

Research has identified market orientation as a key driver of market performance; however, past studies have shown an inconsistent impact on performance. I hypothesize that a crucial link between market orientation and performance is "perceived value." Throughout this section I will summarize how the concept of "perceived value" appears in the literature, then define the term for the context of my study.

R-A theory specifically states that superior firm performance comes from creating market offerings that have "value" to the customers. Much like the "tangible and intangible" resources that companies can employ to create comparative advantage, value—though discussed extensively in the marketing literature—remains a nebulous concept. While most researchers accept that the creation of value is integral in creating a firm's competitive advantage (Parasuraman, 1997; Porter, 1985), an agreed-upon exact definition does not exist.

Definitions of value in the marketing literature have as their foundation poorly defined or vague words such as *worth*, *benefits*, *quality*, and, of course, *utility* (Woodruff, 1997). With such loose definitions, quantifying value or determining what has value calls for general measures that rely on personal interpretations of the terms used. However, the definitions I quote below share an emphasis on the importance of comparing offerings to others available in the marketplace. Zeithaml (1988), for example, investigated price, quality, and value and found that four definitions of value for consumers emerged from focus groups:

1. value is low price
2. value is whatever I want in a product
3. value is the quality I get for the price I pay
4. value is what I get for what I give

Zeithaml (pg. 14, 1988) combines these definitions: "Perceived value is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given." A second definition specifically includes benefits or quality instead of utility: "Buyers' perceptions of value represent a tradeoff between the quality or benefits they perceive in the product relative to the sacrifice they perceive by paying the price" (Monroe 1990, p. 46).

Even focusing primarily on the monetary exchange aspect of "value," researchers' explanations depend on the field of study (consumer *v*. business markets) and further complicate the process of defining perceived value. Instead of developing one definition that combines both consumer and business markets, theorists writing about business-to-business markets define value primarily from the basic utility theories of economics,

equating value with utility. For example:

> Value in business markets [is] the perceived worth in monetary units of the set of economic, technical, service and social benefits received by a customer firm in exchange for the price paid for a product, taking into consideration the available suppliers' offerings and prices. (Anderson et al. 1993, p.5)

Business-to-business literature has used Anderson et al.'s definition above, which includes many aspects of an offering to define value. However, the researchers agree that quantifying some parts of the value equation will be difficult.

Combining many of the above definitions and incorporating both individual and business customers explicitly, Dowling arrived at the following formula:

> For most customers (whether individuals or organizations), value is a function of (perceived or expected) benefits relative to the price (to be) paid, namely: Value = Benefits – Price. (Dowling, Lilien, Rangaswamy, & Thomas, 2000, p. 2–4)

Also important to the concept of value are social and emotional elements, which are usually difficult to quantify in monetary terms (Anderson & Narus, 1998). Woodruff (1997) focuses on the nonmonetary aspect of "value" in one of his definitions:

> By customer value, we mean the *emotional bond* [emphasis in the original] established between a customer and a producer after the customer has used a salient product or service produced by that supplier and found the product to provide an added value. (Butz Jr. & Goodstein, 1996, p. 63)

Perceived benefits derive from what the purchasers believe the product will do for them (or the company) based on both its tangible and intangible features. These benefits may be socio-emotional, such as providing status through a name brand or promoting a belief of the purchaser (e.g. driving a hybrid car or S.U.V.). They can also be technical, referring to how well a product functions in its intended capacity. Price incorporates not only the monetary aspect of a product, but also the perceived risk of a product (e.g. buying a new, unknown brand) and convenience (Lilien, Rangaswamy, & Bruyn, 2007).

For example, a dishwasher that is difficult to load will have a higher "price" than one that is easily loaded. Given the different meanings of "benefits" and therefore "value" for various people, individuals, and organizations, what has value to each will result from the individual's personal understanding of the attribute. Individuals will give different weights to the various components of value depending on the person and the market segment (DeSarbo, Jedidi, & Sinha, 2001)[1]. The above definitions of value all contain common threads from which I develop my definition of perceived value: **Perceived value is a customer's perception that an offering represents an advantageous combination of the socio-emotional, technical, and/or economic aspects that make that customer prefer that offering to another.**

1.2.4 How is value measured?

Just as no consensus exists for the definition of value, the published literature contains many scales for value. In synthesizing the scale of perceived value used in this study, I started with the numerous scales used in previous studies. Most research into value is done from the consumer's perspective, asking the consumer how much value an item or service provides. In consumer research, scales usually equate value with price (Biswas, Pullig, Yagci, & Dean, 2002; Lichtenstein, Ridgway, & Netemeyer, 1993;

[1] Not only do people have personal definitions of value, but perceptions about value depend on both situation and context (Olshavsky, Aylesworth, & Kempf, 1995. The Price-Choice Relationship – a Contingetn Processing Approach. ***Journal of Business Research***, 33(3): 207 -218). The situational and contextual issues can lead to people rating an offering highly, but when given a choice, choosing or preferring a lower-rated offering. This seemingly inconsistent result, or "preference reversal" takes into account the perceived risks or benefits of an offering as well as the manner in which it is presented (Tversky, A., Slovic, P., & Kahneman, D., 1990. The Causes of Preference Reversal. ***The American Economic Review,*** 80(1): 204-217). Further investigation into the role of preference reversal is beyond the scope of this research, but the phenomenon underscores the difficulty in measuring value.

Wakefield & Barnes, 1996), a “good buy” (Dodds, Monroe, & Grewal, 1991; Donthu & Cherian, 1994; Wakefield & Barnes, 1996), quality (Lichtenstein et al., 1993) or a special sale (Putrevu & Ratchford, 1997; Yadav & Monroe, 1993). In addition to or in place of questions about price, quality, and whether or not the item is a good buy, researchers use more general scale items about whether the product or service is a “good value” (Berkowitz & Walton, 1980; Biswas & Burton, 1993; Donthu & Cherian, 1994; Shim & Gehrt, 1996; Sproles & Kendall, 1986). With no exact definition of value provided in the surveys themselves, researchers use general questions in the hope that the term “value” has shared meaning among respondents (Zeithaml, 1988).

Berkowitz and Walton (1980) developed a scale which other researchers have used multiple times to study value from the consumer’s perspective. Given the generality of the questions, the scale appears to work equally well in multiple contexts. Focal products have included televisions (Urbany, Bearden, & Weilbaker, 1988), desks (Burton & Lichtenstein, 1988; Lichtenstein & Bearden, 1989), and calculators (Lichtenstein, Burton, & Karson, 1991). Researchers have used other general scales to study baseball (Wakefield & Barnes, 1996) and grocery stores (Lichtenstein et al., 1993). I found no published examples of studies that failed to use general scales. Therefore, I include general scales in this research.

Even when using a general scale, some researchers have sought to include the spectrum of definitions of value discussed above. Some researchers see focusing mainly on price and quality as the tradeoffs in the consumer value equation as too narrow and simplistic (Bolton & Drew, 1991; Sweeney & Soutar, 2001). Bolton and Drew (1991) conclude that value, specifically for services, must include flexibility in offers that satisfy

the different tastes and expectations of the market segments. Sweeney and Soutar (2001) develop an in-depth scale to measure value of consumer durables by adding emotional and social dimensions of value. Despite all the research into the definition of value, research commonly uses, and generally accepts, the use of general scale items in investigations of customer value. Business *value* has slightly different meaning from consumer market *value*, but the scales and questions used for measuring value in the two markets are not dissimilar, given the looseness of the terms used and the reliance on personal interpretation of value. I consider the multiple aspects of value contained in this definition when developing the model presented in this study (see section 1.4.2 and Appendix A.2).

1.2.5 Market orientation and performance measures in other studies

Despite the general acceptance of the positive link between market orientation and performance, results are mixed for the measure of firm performance. Performance measures in the marketing and strategy literature have included the following:

- financial measures such as sales growth, profitability, return on investment (ROI), and return on assets (ROA)
- non-financial measures, including market share, new product performance, and product quality
- organizational effectiveness measures which include concepts of esprit de corps and organizational commitment for measuring firm and SBU performance (Jaworski & Kohli, 1993; Venkatraman & Ramanujam, 1986).

Tables 1–1 and 1–2 contain data from 22 studies published between 1990 and 2009 that used measures of performance to evaluate the orientation-to-performance link. Table 1–1 shows the performance measures, relationships, and results. I describe them below.

Some studies have found significant and positive relationships between orientation and individual measures of performance such as product success, sales growth, and ROI for small and medium businesses (Appiah-Adu & Singh, 1998), overall performance, employees' organizational commitment and esprit de corps (Jaworski & Kohli, 1993), relative product quality, new product success, and profitability in small firms (Pelham & Wilson, 1996).

While some researchers have examined measures of performance individually, others found positive and significant relationships using scales of multiple measures of performance. Deshpandé, Farley and Webster (1993) created a performance scale that combined relative (compared to the firm's direct competitors) profitability, relative size, relative growth rate, and relative market share. The scale had a positive correlation with customers' perceptions of the firm's customer orientation. In a new product performance study, the researcher constructed two scales that consumer orientation impacted positively and significantly. The first scale, new product performance, measured market share, sales, growth, and profit objectives for new products. The second scale included six new product development activities: proficiency of predevelopment activity, proficiency of launch, product advantage, service quality, marketing synergy, and teamwork (Atuahene-Gima, 1995).

However, even in studies that demonstrated positive, significant relationships for some performance measures, other performance measures within the same study

sometimes had a negative or non-significant relationship. In a study of new products, customer orientation related positively to meeting new product objectives for products in high uncertainty (differentiated) markets, but negatively to new product performance for products in low uncertainty (commodity) markets (Gatignon & Xuereb, 1997). Jaworski and Kohli (1993) found positive relationships between market orientation and performance; however, in the same study, orientation and market share were not related. In Pelham and Wilson's (1996) study of small businesses, market orientation did not influence the growth/share measure. New product development, innovation, and success continue to be some of the main performance measures considered in the market orientation literature (Chou, 2009; Im, Hussain, & Sengupta, 2008; Im & Workman Jr, 2004).

Still other studies have found consistently negative or non-significant relationships between orientation and performance. In a study of United Kingdom companies, Greenley (1995) found no significant relationship between market orientation and ROI, new product success rate, or sales growth. In a banking industry study, Hanet al. (1998) found no significant link between orientation and two objective and two subjective measures of growth and profitability when the study included innovation. Voss and Voss (2000) studied theaters, showing negative or non-significant relationships between customer orientation and single ticket attendance, subscriber attendance, total income, and net surplus to debt ratio. In order to provide stronger evidence for the relationship between market orientation and performance, I aimed to develop a test model that would include multiple measures from the same respondents and objective financial measures to investigate the impact of market orientation on performance.

1.3. HYPOTHESES ON MARKET ORIENTATION, VALUE, AND PERFORMANCE

Thus far, the literature has presented the market-orientation-to-performance link as a direct link from orientation to performance without including value as a mediator. However, as markets become more competitive, more interest increases in the notion of value as the means to create above-average firm performance (Payne & Holt, 2001; Sharma, Krishnan, & Grewal, 2001). To date, investigation into the relationship among value, market orientation, and performance is incomplete. This section on hypotheses seeks to remedy the omission in the published literature.

1.3.1 H1: Market orientation: The direct approach

After examining the traditionally accepted model of direct market orientation to performance, I used my findings to inform creation of a benchmark for the value mediation model, utilizing the commonly accepted scale of market orientation within a firm created by Kohli and Jaworski (1993). Their scale included openness to sharing information about customers across the organization, meeting with customers, and doing market research, in congruence with research that has shown closeness to the customer and sharing of information with the firm to be part of the market orientation of the firm. Their scale also includes measures that allude to value creation (Jaworski & Kohli, 1993; Kohli, Jaworski, & Kumar, 1993). As a benchmark with which to compare the alternative model, I posit:

H1: **Market orientation has a positive and direct impact on performance**

The above hypothesis leads to Model 1 pictured in Figure 1–1.

Model 1 serves to test the generally accepted direct market-orientation-to-performance hypothesis, H1. It also serves as the benchmark model against which the value mediation model will be compared.

1.3.2 H2: Value mediation model

As the market orientation (MO) research evolves, simply measuring the direct model is not sufficient to explain how MO impacts performance. Indeed, the MO capability allows firms to create superior performance. Firms may gather information about customers' needs and competitors' actions and share the information within the firm, providing the insight to produce products and services that customers value (Zhou, Li, Zhou, & Su, 2008). Firms that create products/services that customers value have superior performance (Hult et al., 2005). MO will have a positive and significant impact on firm performance indirectly through creating products that customers value (Hunt & Duhan, 2002). To investigate this relationship I posit in contrast to the direct model above (Model 1, H1):

> **H2**: **Value mediates the relationship between market orientation and performance.**

Hypothesis 2 describes the value mediation model (Model 2) that Figure 1-2 shows.

1.4. METHODOLOGY

I first test Model 1 to show that while the currently accepted model of market orientation's impact on performance does, in fact, hold. The introduction of value in Model 2, the hypothesized value mediation model (H2), will offer more explicit evidence about the manner in which market orientation impacts performance.

1.4.1 Sample and data collection

Based on interviews with senior managers at 12 large companies, I started developing the survey instrument. Questions to the managers included how they viewed their customers, market orientation, and information orientation. Once I developed the preliminary questionnaire, I conducted three separate pre-test phases with a total of 90 representative managers. Pre-testing included debriefing participants after they completed the survey to find out which questions might be confusing, unclear, or ambiguous. After each round of pre-testing, I updated and refined the survey instrument. Additionally, I analyzed pre-test data to make sure that measures loaded on factors as intended.

After the first rounds of pre-testing, I conducted a national survey with 335 usable responses. Based on that data, I presented a preliminary study at a national conference. While the market-orientation measures used were similar to previously used scales, I determined that including scales that are already accepted by the academic community would strengthen the research. Therefore, I developed and pre-tested a new survey instrument including the Kohli and Jaworski (1993) scales for marketing orientation.

For this round of pre-tests, MBA and Executive MBA students at a large Midwestern University filled out 98 usable surveys.

In order to investigate firm performance without correcting for multiple SBUs and variable performance among the SBUs within one company, I surveyed only single SBU firms. The survey included only publicly traded companies. This was to ensure that the definition of a single SBU firm would be similar among the companies. Until 1998, the S.E.C. (Securities and Exchange Commission) required firms to report financial information for segments by product line rather than reporting information by SBU. Few companies had internal structures that matched their product lines. This resulted in such anomalies as IBM having to report segment level data for only one “segment” as they only have one product line as defined by the S.E.C. The updated rules, which went into effect for fiscal years starting after December 15, 1997, require publicly traded companies to report financial data at the segment level based on the actual internal structure of the company. As a result of the rule change, IBM is required to report segment level data for seven segments instead of just one (Berger & Hann, 2003). Now, the definition of a publicly traded, single SBU firm is more uniform across companies and industries. Firms that are single SBU firms under the new regulations include Southwest Airlines, Pixar, Blockbuster, and Whirlpool Corporation. This change allows us to obtain responses from a company without the noise of multiple business units.

To obtain a sample of only single SBU firms, I searched the WRDS database of 10K filings (required for publicly traded companies by the S.E.C.), and selected only those that report single SBU. 10K filings lag the calendar year, and I used the available information for 2003. In 2003, there were 4,154 single segment companies. Of those

companies, 3,768 had employer identification numbers (EIN). In order to find mailing addresses and contact names for each company, I used the Dun & Bradstreet (D&B) service. D&B includes the EIN of each company within its database, and they provided us with contact names, job titles and addresses only for the single SBU firms. Of the 3,768 companies with EINs, 1,526 companies had D&B listings which included contact information for a person in sales, marketing, vice-president, or president of the company. 40 percent of the contact names were for the company president and 20 percent held a title of "manager." Many companies (589) had more than one contact name available. Through the job titles, I was able to target those who were in positions that dealt with the issues covered by the survey. The data frame included companies from all 50 states in the U.S. I did not base any specific selection on state or geographic location, except to limit the sample to U.S. companies and not include overseas firms or establishments of US firms overseas.

Once I had identified the contacts, I mailed each an eight page questionnaire booklet (seven inches by eight and a half) along with a postage paid envelope for the survey's return. The mailing included a cover letter along with the questionnaire. It also offered a five-dollar donation to one of six charities for completion of the survey. The charities that the participants could choose from were Habitat for Humanity, Make a Wish Foundation, World Wildlife Fund, Big Brothers/Big Sisters, St. Jude Children's Hospital, and the Susan G. Komen Breast Cancer Foundation. Ten days after the mailing, I sent reminder postcards.

The first wave of mailings resulted in 119 of the packets returned as "undeliverable" and 46 responses. Two weeks after the reminder postcard, I sent another

questionnaire booklet, cover letter, and postage-paid envelope to the 1,950 who had not responded. Again, ten days later, I followed up with a second reminder postcard to the non-responders. The second wave brought 27 responses for a total response rate of 4 percent. The first wave of survey booklets was yellow, and the second wave was white in order to easily identify which mailing elicited a response from each respondent[2]. No company had more than one responder. Having only one respondent from a company may result in mono-method bias, and I discuss this issue in the section entitled "Limitations and Implications for Future Research."

I compared the responses from the mail survey to 56 responses from evening and executive MBA students at a large Midwestern University. The responses between the evening and executive students did not differ significantly. However the responses between the mail-survey responders and the MBA students differed significantly (the means of 35 percent of the questionnaire items were statistically different). This difference appears to be due to the great difference in numbers of years of experience for the MBA students versus the mail survey respondents (9.7 years versus 27.4 years). Given the prevalence of people with the title of "President" to whom I sent the survey, this difference is not surprising. I chose to use the 73 responses from the mail survey in the data analyses because their companies are single SBU firms, and I can connect their responses to their 10K data filed with the SEC.

[2] A non-response analysis was performed comparing early and late responses (Armstrong, J.S. & Overton, T. S., 1977. Estimating Nonresponse Bias in Mail Surveys. ***Journal of Marketing Research,*** XIV(August): 396-402). The results of the analyses of respondents and responses show no significant differences and indicate that non-response bias is not an issue with our sample.

1.4.2 Measures

I developed measures for competitive intensity because pre-tests on a previously published scale did not show a high Cronbach's alpha. For all other constructs, I used existing measures. Appendix A contains all the measures used in the analyses.

Market orientation (Appendix A.1)

I measured the components of market orientation using the widely accepted scale developed by Kohli and Jaworski (1993). As Appendix A.1 shows, the scale consists of 20 questions all of which I included in the survey and the analyses. The coefficient alpha for the 20 items was 0.87 and the composite reliability, 0.88, well above the 0.70 minimum suggested (Nunnally & Bernstein, 1994).

Value (Appendix A.2)

Following my definition of perceived value (Section 1.2.3 above), I used eight items to measure the social, emotional, economic, and technical aspects of offerings which make the purchaser prefer a product. The survey instructed firms to answer all eight of the value questions in the context of how the company's customers view its offerings in comparison to the competitors. To measure the economic aspect of value, researchers commonly ask how the offering's value for the money compares to that of the direct competitors. The technical aspects are covered by the questions in which respondents rate their product quality and how the company deals with problems. To cover the social and emotional aspects, the respondents rated their companies on how understanding they are, how they are at collaborating, and how their customer service

compares to their competitors' customer service. Some of the value questions cover multiple aspects; for example, all aspects of value are covered in the question that asks the respondents if their firm offers the best total solution to their customers. The technical and socio-emotional aspects are both incorporated in the question about responsiveness. All of these questions together integrate the multiple aspects of value. The eight questions have a coefficient alpha of 0.81 and a composite reliability of 0.86, well above the minimum suggested (Nunnally & Bernstein, 1994).

Performance

Self-reported performance (Appendix A.3)

Again, I measured firm performance three ways because companies are interested not only in profit, but also sales growth and customer retention, depending on their strategic focus. In this study, I use self-reported measures of how the firm performed in comparison to their direct competitors over the last two years (short-term) and additionally in the long-term (four years) and measures from the 10K filings of the respondent companies. For the self-reported measures, participants reported performance on a 5-point, single item scale with endpoints of "Much Better" and "Much Worse" than competitors. The three measures had a coefficient alpha of 0.81 for the comparison at two years and 0.84 for four years.

Objective performance measures (Appendix A.4)

Having only self-reported measures from one member of each company does not allow for triangulation of responses and may lead to mono-method bias. Therefore, I

supplement the subjective data with objective data from the 10K filings of the firms. In order to use performance measures from the 10K filings of single SBU firms, I used data found on Compustat. I obtained ROA and Sales Growth data for all publicly traded, single SBU firms from 2005 through 2008. The 2005 survey asked respondents to rate their companies in the present. Therefore, 2005 data should show the impact of current market orientation and value on reported performance measures in 2005. I found 5,513 firms that had at least some data for the performance measures I was interested in during at least one of the years. I identified the respondent companies within this group of firms. Not all the responding firms had data for the timeframe I was interested in. I retained those with data for at least one of the performance measures. Of these, 49 firms had data for Sales Growth and 45 for ROA in 2005. For the years after 2005, even fewer respondent firms had data for the performance measures of my research. This may have been caused by the firms expanding and becoming multiple SBU firms, or they could have been acquired by another firm. One firm had gone private; some may have delisted from the stock exchange, and consequently no longer needed to file a 10K report. Therefore, I consider only the 2005 data. I cannot test for a lag effect of market orientation or value on performance.

As there is no a priori reason to believe that sales growth and ROA should be similar for different types of firms in the same year (for example, a fall in mineral prices may reduce ROA for a mining company but have no impact on casinos), I sorted the firms by SIC code (the S.E.C. still uses SIC codes and not the newer NAICS codes). I used only the first three digits of the code because grouping by complete SIC code would have created very small and sometimes single-firm groups. If any three-digit SIC group

had no responding firms in the group, I removed it from the analyses. A total of 2,422 companies remained, including the respondent companies. There were 34 groups of companies, the largest group with 569 companies and the smallest with 3 companies.

The respondents ranked their company on performance as compared to each of their competitors. Each of the three-digit company groups was considered the competitors for the respondent companies within the group. My study considered the data for sales growth and ROA separately. The firms do not report sales growth or ROA. Instead they report the data needed to calculate these measures. I calculated the measures using standard accounting definitions. Sales Growth is defined as the difference between this year's sales and last year's sales divided by last year's sales. ROA is net income plus after tax interest expense, all divided by the total assets at the beginning of the year. After calculating Sales Growth and ROA for all the companies, I calculated the average and standard deviation for Sales Growth and ROA for the three-digit SIC code group. Outliers were removed if their ROAs or Sales Growth figures were five or more standard deviations from the mean of the group. Different types of firms, as identified by their three-digit SIC codes, will have different average ROA and sales growth due to outside factors that may not influence ROA and sales growth of different types of firms. Therefore, to compare performance of the companies from different SIC codes, the companies' sales growth (ROA) rank within their SIC code group is the actual performance measure. This compares the performance of the company to the competitors, similarly to how the respondents rated their company performance relative to their competitors. Then, I linked the 10K performance measures for the respondent companies to the self-reported survey data for value, market orientation, and the control variables.

Moderators: Competitive intensity (Appendices A.5 and A.6)

I measured competitive intensity with two scales. I developed measures based on D'Aveni's work on hyper competition (D'Aveni, 1994, 1995). Appendix A.5 shows the scale. I compared the hyper competition scale that I developed to a previously developed competitive intensity scale (Song & Parry, 1997a, b) which appears in Appendix A.6. The scales include questions about price competition and how aggressively firms position themselves against each other in the respondent's competitive market. In the first pre-test with 98 MBA students, the Cronbach's α for the Song and Parry competitive intensity scale was 0.36 while the α for the scale I developed was 0.78. However, I chose to include both scales in the final survey despite the low α of the Song and Parry measure, as it had been previously published in the marketing literature. The α for the Song and Parry competitive intensity scale with the responses from the final sample only improved to 0.41 while the α for the hyper competition scale I developed was 0.77, which is above the 0.7 cutoff suggested by Nunnally (1994).

Control variables (Appendix A.7)

I included control variables for competitive factors that might influence firm performance. As Table 1–2 shows, previous researchers have investigated control variables such as firm size, buyer power, market position, ease of market entry (Atuahene-Gima, 2005; Chou, 2009; Hult et al., 2005). In the final survey, respondents answered questions about four competitive factors: self-reported size of firm (as compared to the direct competitors), cost disadvantage of the responding firm as

compared to their major competitors, barriers to entry, and buyer power. Appendix A.7 includes the single item measures.

1.5. RESULTS OF MODEL TESTING

1.5.1 Introduction

This section presents the results of testing the two models which I hypothesize in this study: the direct link model (Model 1) and the value-mediated model (Model 2). First, I describe the methodology used to test the models. Then, I test and evaluate Model 1 and, subsequently, Model 2. A comparison of the two models shows that, in Model 2, value acts as a mediator of the path between market orientation and performance. Then, I decompose market orientation into the three parts suggested by Kohli et al. (1993): intelligence generation, intelligence dissemination and responsiveness. Results show that intelligence generation is a statistically significant predictor of performance in the long-term. Intelligence dissemination is a statistically significant predictor of all three composite performance measures. Responsiveness is not a statistically significant predictor of performance for any of the composite performance measures; however, it is a statistically significant predictor of value. Value does not mediate the *dissemination* to performance path, but it does partially mediate the *generation* to performance path.

1.5.2 Statistical Methods

A review of the recent literature showed that market-orientation research most commonly uses either regression analysis or structural equation modeling (SEM.). Table 1–2 shows 13 marketing orientation papers published in peer reviewed journals in a five-year period. Eight used regression (62 percent), three used SEM (23 percent) and the other two were conceptual or descriptive. While most studies that use SEM utilize maximum likelihood (ML) estimation procedures, usually through the programs LISREL or AMOS, I chose to use partial least squares (PLS) estimation utilizing the SmartPLS (Ringle, Wende, & Will, 2005) program for path modeling. Path modeling with PLS provides advantages over regression analysis and ML based SEM. Table 1–3 contains a comparison of the three methodologies. Below, I provide an overview of PLS and its advantages.

Both ordinary least squares (OLS) and LISREL require an assumption that the data are measured without error. Measurement error can be caused by something as simple as the order of the questions in the survey. PLS theory does not require normally distributed, continuous variables that are measured without error, and by using PLS, I avoid the assumption that my data were measured without error.

Additionally, path modeling with PLS is preferable to regression for investigating moderation and mediation. Testing for mediation and/or moderation is complicated using OLS's simple linear structure. The most common test for mediation requires three separate regressions (Baron & Kenny, 1986; Zhao, Lynch, & Chen, 2010). However,

with PLS and LISREL, the mediators and moderators can all be included in the model and their significance tested with one estimation model (Haenlein & Kaplan, 2004).

PLS allows a more complete look at the multiple performance indicators in the models. OLS depends on a simpler model, allowing only one dependent variable at a time. Both PLS and LISREL can estimate more complex models and allow multiple dependent variables to be included simultaneously in the model.

Additionally, researchers usually assume that latent indicators are reflective. This may be because other than using PLS, there is no simple way to construct formative indicators. Formative indicators are causal, meaning that they cause the latent variable, while reflective indicators are effects of the latent variable (Diamantopoulos & Winklhofer, 2001). Haenlein and Kaplan (2004) offer examples of formative and reflective indicators. They explain that life stress is a formative latent variable which could be caused by writing a dissertation, getting a divorce, having a parent die, or becoming ill. A person does not need to suffer with all of the stress-causing experiences to have life stress; any one will do. In this case, the experiences (items) are uncorrelated, though they do not have to be.

The items of reflective indicators are correlated and are the effect of the latent variable. For example, timeliness (the latent variable) means a person is usually on time to meetings, meets deadlines, and responds to telephone calls and emails promptly. If the person were not on time to meetings or did not return calls promptly, they would not be considered timely. Therefore, timeliness is an example of a reflective indicator. PLS, unlike OLS or LISREL, allows indicators to be either reflective or formative, and both types can be included in the same model.

An important advantage of PLS over LISREL is that fewer observations are required. As with other methods of data analysis, more is better; however, PLS can estimate models with fewer observations than LISREL (Haenlein & Kaplan, 2004). LISREL and OLS do have an advantage over PLS in that there are multiple goodness of fit measures for both those methods. PLS has some goodness of fit measures (R^2, t-statistics, Average Variance Extracted, and Cronbach's alpha for example), but LISREL in particular has many more. Because of this, PLS is less desirable than LISREL for comparing models, but is adequate for theory building (Henseler, Ringle, & Sinkovics, 2009).

Given the low number of observations and the desire to test both mediators and moderators, PLS was an obvious choice for my data analyses. Additionally, using PLS allowed me to model multiple dependent variables and use both formative and reflective indicators in the same model.

In order to run the path models for Models 1 and 2, I assigned each company a market-orientation score. While PLS can estimate models with large numbers of indicators and few observations, the results are more likely to be valid when there are more observations than indicators. The market orientation score is composed of the responses to the 20 market-orientation measures that Section 1.4.2 of this paper describes. As the respondents rated their companies on a scale of one to five for each measure, the market-orientation scores could range from a low of 20 to a high of 100. The highest score recorded in the data set was 99 and the lowest 29. The average score is 73.6 and the median was 74. Figure 1–3 shows the distribution of the market-orientation scores for the sample.

Model 2 requires value to be included in the model. As with market orientation, I constructed a value creation score from the eight items described in section 1.4.2. Respondents rated each of the eight value items on a scale of one to five. Therefore, the value score had a total possible score of 40. The scores in the sample ranged from a low of 15 to a high of 40. The mean was 31, and the median, 32.

In estimating performance for the models, I depart from previous work that only focuses on a single measure, and with PLS, I can include multiple dependent variables in a model. Therefore, in the estimations of Models 1 and 2, I include profit, revenue, and customer retention in the short and long term as well as the objective performance measures. A priori, there is no reason to believe that all the indicators measure the same type of performance, and orientation and value may have differing relationships with the individual performance measures and time frames (Venkatraman & Ramanujam, 1986; Voss & Voss, 2000). As Table 1–1 shows, previous studies have had mixed results when investigating growth and profitability separately. As Tables 1–4 and 1–5 show, in the observed data which I used to test the models, the correlations between any two of the self-reported measures range from 0.53 to 0.66. The coefficient alpha is 0.80 for the three measures at both two years and four years. Therefore, I included all the self-reported performance variables in the model and the two 10K performance variables. The three subjective short-term measures are indicators of short-term composite performance, the three subjective long-term measures are indicators of long-term composite performance, and the two objective 10K measures are indicators of composite 10K performance. As I model the performance variables in a composite manner, I will refer to short-term

performance (long-term performance or 10K performance) in reference to the composite variables.

As mentioned previously, PLS demonstrates an advantage over both OLS- and ML-based SEM methods; PLS indicators can be either formative or reflective, and both types can be included in the same model. Usually, indicators in marketing research are assumed to be reflective, possibly for ease of modeling and estimation. One study showed that in the top four marketing journals, only eight percent of formative constructs are correctly modeled (Jarvis, MacKenzie, & Podsakoff, 2003). The other 92 percent are modeled as if they were reflective constructs. The authors also offer a set of criteria to determine if the constructs should be modeled as reflective or formative. Following the researchers' criteria, the multiple measures of composite performance should be considered indicators of a formative construct, and therefore, I have included them in my model in a formative manner.

Another advantage of PLS over OLS is that while multicollinearity of the data causes estimation problems in OLS, it is not a problem in PLS. Even so, I checked the correlations between the latent variables, which appear in Table 1–6. Only the correlations between the variables in the same model are shown. Therefore, no correlation for the full market orientation score with any of the three factors of market orientation (intelligence generation, intelligence dissemination, or responsiveness) appear in the table. The correlation of the composite short- and long-term performance measure is the highest at 0.814. This is not unexpected, for if a firm has good customer retention (revenue, profitability) in one year, it most likely will have similar performance on the

measure in the subsequent year. I further checked the data with VIF tests, and they do not show any signs of multicollinearity.

Using PLS to test for mediation, I compare the magnitude and significance of the coefficients in the path model. My model estimation includes competitive intensity and the control variables—firm size, buyer power, cost disadvantage, and ease of market entry. The control variables and competitive intensity are not significant in all the models. Below, I discuss each model in detail.

1.5.3 Model 1

I ran Model 1 first to test the fit of the observed data with the previously accepted direct model of market-orientation-to-performance. Model 1, as shown previously in Figure 1–1, has a direct path from market-orientation-to-firm performance. To test Model 1, I built a path model with the three groups of performance measures (long-term, short-term, and 10K measures) included in the model. Each of the three performance constructs are comprised of the corresponding indicators and yield formative results. In developing the final model, I first included all the control variables, and then removed those that did not have a statistically significant impact on the performance measure. The final model is shown in Figure 1–4. Firm size is only significant for short-term and long-term performance and not for the 10K measures considered. The barriers to entry effect has a significant, negative effect on the 10K performance measures.

Figure 1–4 contains the coefficients and t-statistics for Model 1. The data support H1 that market orientation has a direct, significant, and positive impact on the three types

of performance measured. The loadings on the short-term performance construct here suggest that revenue is not a strong measure of short-term performance as described in this model, nor is long-term profit a strong measure of long-term performance.

For both short- and long-term performance, firm size is positive and statistically significant. Barriers to entry have a negative impact on 10K performance. This shows that in markets where it is difficult for new competitors to enter, performance is negatively impacted. I expected the opposite result; if the market is difficult to enter, firms should be able to earn higher profits than if competitors can enter easily. Zhou, et al. (2007) found that respondent firms erected barriers to entry that had a significant positive impact on firm performance. In their research, they specified that a barrier to entry was the respondent firm building a hotel in a prime location, leaving the competitors to build their hotels in less desirable locations. In my study, the respondents rated their market on how difficult it is for a new competitor to enter. As I included firms from many different industries, this question may have been too general and the respondents may each have construed different types of barriers. For example, in some situations, a market may be difficult to enter because of some type of protection such as governmental controls, regulations, licensing, permit requirements, or high start-up costs, and in other situations, a market may be difficult to enter because there is a high level of competition. If the difficulty of entering a market is primarily due to its highly competitive nature, then we should expect lower ROA and sales growth.

The other control and moderator variables are not significant predictors of the performance measures.

SmartPLS calculates the R^2*s* for each of the performance variable estimations. The R^2 is 0.434for short-term performance, 0.389 for long-term performance, and 0.207 for the 10K measures. These values are similar to previous research on market orientation that has found R^2*s* of between .21 and .48 (Deshpandé & Farley, 1998b). And the R^2*s* are in line with those considered "substantial" in a more recent market orientation study (Morgan et al., 2009).

1.5.4 Model 2

To run the value mediation model, Model 2, I included the value score as a mediator in the path model and compared it to Model 1 for the three performance constructs. Figure 1–5 shows the final model and the coefficients and t-statistics for each of the variables. Market orientation has a positive and statistically significant impact on value. In this model, value does not mediate the market-orientation-to-performance path for the 10K measures. However, it does mediate the paths from market-orientation-to-short-and-long-term performance. Following the Baron and Kenney descriptions of mediation, value is a partial mediator of these paths, as the direct path from market orientation to both short-term and long-term performance constructs remains significant, but the market orientation coefficient decreases (1986). Including value in the model increases the R^2 of the short-and long-term performance estimations. The R^2 of short-term performance increases to 0.56, and that of long-term performance increases to 0.49. In this estimation, firm size is again a positive predictor of short- and long-term performance. Unlike in Model 1, where buyer power was not a statistically significant

predictor of any of the performance measures, here buyer power has a negative and significant impact on long-term performance.

1.5.5 Model Comparison

In Figures 1–4 and 1–5, I detail the results of the empirical tests of the models. Figure 1–4 shows that the data support H1 that market orientation is a positive and statistically significant predictor of all three of the performance constructs. However, Figure 1–5 shows that H2 is only partially supported by the data, as the results depend on the performance measure. Value does *not* mediate the market-orientation-to-performance path when the 10K measures are the dependent variable, but it partially mediates the paths to both short-term and long-term performance. Firm size is a positive and statistically significant predictor of both short- and long-term performance in both models. This demonstrates that being larger than the direct competitors gives firms a performance boost. As Figure 1–5 shows, the R^2*s* of the short-term and long-term performance paths increase when value is included in the path model. Value, then, is one link that helps explain when and how market orientation leads to enhanced performance.

By examining the paths from market orientation to performance both indirectly through value and directly from market orientation to firm performance, I get a deeper understanding of how market orientation impacts firm performance. I can break down the influence of market orientation on performance into its direct effect (path directly from market orientation to performance) and its indirect effect (effect from market orientation through value to Performance). When the model includes value as a separate construct, the result is a reduction in the direct effect of market orientation to performance. A model

omitting value as a separate construct would not correctly explain the impact of market orientation on performance.

1.5.6 Decomposing market orientation

The estimation of Models 1 and 2 above included market orientation as a one-factor scale. As shown in Table 1–2, this is usually how researchers have estimated market orientation. However, as described earlier, Kohli et al. (1993) suggest that market orientation is correctly specified as three separate constructs. Doing so, they propose, allows for greater exploration of the potential for another factor's mediation between market orientation and performance. They show that what is usually considered one 20-item factor could be split into three separate ones: intelligence generation, intelligence dissemination, and responsiveness. The authors suggest that the three separate factors will have differing impacts on performance and on value.

As a prelude to doing my own decomposition, I reviewed the market-orientation literature and found two studies which broke market orientation into the three factors suggested by Kohli et al. (1993). First, Rose and Shohan (2002) examined the role of overall market orientation and then its three components on four separate measures of export performance in Israeli exporters. They found that overall market orientation, intelligence generation, and responsiveness were positive and related in a statistically significant way to three of the performance measures, but that no statistically significant relationship existed between intelligence dissemination and any of the performance measures they tested (p. 222).

In the second study to use the three factors, researchers conducted a market-orientation study in China to investigate reliability and validity of the Kohli and Jaworski market-orientation measures in an environment other than the U.S. They tested the reliability of the three components, and then used the three components to describe differences between consumer products companies and industrial products companies. However, while they correlate the complete market-orientation scale with performance, they do not investigate the role of the three components of market orientation on their performance measures (Kaynak & Kara, 2004).

The complete market-orientation scale produced mixed results in the model without value, tested above. Also, without published studies examining the role of mediation with the three components of market orientation, I sought to further investigate the role of market orientation and value on firm performance by decomposing market orientation into the three factors that Kohli et al. (1993) specify.

Confirmatory factor analysis of market orientation:

In order to decompose market orientation, I conducted confirmatory factor analysis starting with the original 20 items included in the complete market-orientation scale to determine whether the data showed the same three-factor structure found by Kohli et al. (1993). The data had a tendency to cross load on factors. Specifically, the items which represent the responsiveness factor cross loaded on the intelligence-dissemination factor. After cleaning the cross-loading items and removing items that did not load on any factor, I was left with a three-factor solution composed of the nine items shown in Table 1–7. The *p*-value of the solution was 0.228, showing that three factors are

sufficient. Three of the items that were not included in the one-factor solution are included in the three-factor solution. The three factors, intelligence generation, intelligence dissemination, and responsiveness, have composite reliabilities of 0.89, 0.85, and 0.78 respectively, and Cronbach's alphas of 0.76, 0.75, and 0.61. Furthermore, the average variance extracted (AVE) of the three factors are all above the suggested cut-off of 0.5 (0.81, 0.58, and 0.55 respectively) showing convergent validity. Discriminant validity is supported by the Fornell-Larker criterion as the AVE of each is greater than the highest squared correlation with any other variable.

1.5.7 Three-factor market-orientation model

Model 1.3

I first reran Model 1 with the three factors of market orientation, replacing the single, universal market orientation variable. I shall refer to this model as Model 1.3. As in section 1.5.3, the path model includes the three factors of market orientation and the three groups of performance measures as well as the control variables. To reach the final model, I first included all the paths possible, and then removed those that did not have a statistically significant impact on the performance measures. The final model is shown in Figure 1–6. As in the original Model 1, both barriers to entry and firm size have statistically significant effects on some of the performance measures but not all. Additionally, cost disadvantage has a statistically significant impact on the 10K and short-term performance measures.

Figure 1–6 contains the coefficients and t-statistics for Model 1.3. The data show that the three components of market orientation have different impacts on firm performance. As the results show, responsiveness does not have a statistically significant impact (even at $\alpha = 0.10$ level) on any of the performance variables included in this model. Intelligence generation impacts the self-reported short- and long-term measures, while dissemination has a statistically significant impact (greater than $\alpha = 0.05$) on all three performance variables. The coefficient on firm size shows a positive and statistically significant effect (at $\alpha = 0.05$) on both short- and long-term performance. The coefficient of cost disadvantage shows a negative and statistically significant impact ($\alpha = 0.05$) on 10K and short-term performance, but not on long-term performance. Barriers to entry continue to have a negative and statistically significant impact on the 10K measures. The other control and moderator variables are not included in the final model as they do not have a statistically significant impact on any of the performance measures. The R^2s of the performance variables are 0.490 for short-term performance, 0.444 for long-term performance, and 0.266 for the 10K measures. As in both Model 1 and Model 2, the R^2 of the 10K measure variable is the smallest.

Model 2.3

Even when no direct effect exists, one can test for mediation (Zhao et al., 2010). Therefore, I ran the value mediation model, Model 2.3, and included the three components of market orientation. Then, I compared it to Model 1.3. For value to mediate the model, each of the three components should have a positive and statistically significant impact on value. In fact, both intelligence generation responsiveness have

positive and statistically significant (α = 0.05 and α = 0.10 respectively) impacts on value. Intelligence dissemination, however, does not demonstrate a statistically significant impact on value. Next, mediation requires that value have a positive and statistically significant impact on each of the three performance measures. However, the data only support value having a positive and statistically significant impact on short- and long-term performance, but not on the 10K measures. This result is similar to the result in Model 2 above. Finally, even though generation has a statistically significant path to value, it continues to have a direct path to long-term performance that is also statistically significant (α = 0.05). Therefore, the data support a conclusion of value only as partial mediator in the market-orientation-component-to-performance path.

Cost disadvantage has a negative and statistically significant (α = 0.05) impact on both 10K performance and on short-term performance. Barriers to entry also have a statistically significant and negative impact on 10K performance. As in Models 1, 2, and 1.3, firm size has a statistically significant and positive impact on both short- and long-term performance. The R^2 for the 10K performance part of the model remains the same as in Model 1.3 the variables impacting 10K performance remain unchanged. With the inclusion of value in the model, the R^2*s* of both short- and long-term performance increase from 0.490 to 0.605 for short-term performance, and from 0.444 to 0.541 for long-term performance.

Results of the three-factor model

The results of testing the three-factor solution, rather than the more commonly used one-factor market orientation scale, highlight the need to be specific not only about

the performance measure used, but also about what part of market orientation is a company's strength. For example, a firm that is good at intelligence dissemination will experience a positive impact on its performance in both the short- and long-term and improve the 10K measures included in this study. In contrast, a customer responsive focus will not lead to a positive impact on firm performance. Intelligence dissemination does not have a statistically significant impact on creating offerings of value to customers. However, both intelligence generation and responsiveness *do* aid in creating offerings that customers value. A firm trying to improve performance should determine its weakest areas of market orientation and improve the parts that will have the largest impact on its performance.

1.6. DISCUSSION

For scholars, this study shows that value, at least partially, mediates the market-orientation-to-performance link when the research uses self-reported measures. While published research has discussed the importance of market orientation on value, researchers had not previously tested value's mediating effect. Although the market-orientation-to-performance link is generally accepted, mixed results in previous studies suggest a need for an improved model. Value's mediation impact suggests a more complete understanding of how market orientation impacts firm or SBU performance. If replications of this research support the findings, then the importance of competing on value in a competitive environment will be supported.

1.6.1 Theoretical Implications

As I discussed earlier, both Hunt's and Chamberlin's theories suggest separating value from the overall market-orientation scale and, instead, viewing value as linking market orientation and performance (Chamberlin, 1965; Hunt & Morgan, 1995). As Day and Wensley (1988) suggested, a superior market orientation leads to a positional advantage, which in turn leads to enhanced performance. These results support the value-mediated model depending on the performance measure. Previous studies have shown mixed results for the orientation-to-performance relationship. One interpretation of my study results could be that some of these differences may be due not only to excluding value as a mediator, but also to the performance measure used. Additionally, control variables that were included in my models had statistically significant impacts on the performance variables. This shows the importance of including the variables.

My results also partially support the three-component structure of the market-orientation construct proposed by Kohli et al. (1993). While one previous study found that intelligence generation and responsiveness both lead to performance (Kaynak & Kara, 2004), I found that intelligence dissemination leads to enhanced self-reported and objective performance. Intelligence generation in my study has a directionally correct (positive) influence on performance in the short-term, but it is not statistically significant. In the long-term, however, it is statistically significant. In contrast, responsiveness is not a significant predictor of performance. Additionally, I found that value at least partially mediates even the paths from responsiveness and intelligence generation to self-reported performance. The previous study had not tested for mediation. My finding that size of the firm in relation to its competitors, buyer power, barriers to entry, and cost disadvantage

also impact the performance of the single SBU firm has implications for building future theories on why and when firms will have good performance.

1.6.2 Managerial Implications

As markets become more transparent and as information becomes more easily available via the internet, price and barriers to information are no longer viable competitive strategies. Instead, value moves to the forefront. In order to compete on value, firms must know who their customers and competitors are and what their needs are (Sawhney, 2002). While increased information for both buyers and suppliers leads to markets that are closer to a classical perfect competition scenario, buyers will never have homogenous needs. Knowing your customers and providing offerings that they value will lead to above-average performance.

This study's results offer preliminary information for managers about the components of market orientation. Before focusing on value creation, management should examine the components of market orientation that impact value and performance. By breaking market orientation into its three components, firms can determine where on the market-orientation scale they are deficient. If firms already generate intelligence and respond to customers but do not score as highly on intelligence dissemination, they should focus on dissemination to improve. This is especially important as the results show intelligence dissemination to be a statistically significant predictor of the three performance measures included in the study.

1.6.3 Limitations and Implications for Future Research

Although market orientation and its three components each contribute to performance, value partially mediates some of the relationships. Because the research used survey data and not experimental data, I cannot show causality. Even so, applying the framework of the mediated model gives a deeper understanding of the roles of value and market orientation.

Using PLS, future research could further investigate the relationship between the three components of market orientation and performance. PLS allows both formative and reflective indicators in the same model. A more in-depth model than the one presented here would have measures for the three components of market orientation, and then a separate measure for market orientation. The three components would lead to market orientation, and then market orientation would lead to value and then to performance. My data did not contain a separate measure of market orientation which would have allowed me to model the components in such a manner.

Researchers examining the impact of market orientation on performance have mainly focused on innovation, without considering value. Recently, a few researchers have discussed value when using innovation as a proxy for customer value delivery (Srinivasan, Pauwels, Silva-Risso, & Hanssens, 2009). While innovation may enhance an aspect of a product or service that customers value, not all innovations will necessarily lead to increased perceived value. For example, an innovation may lead to increased quality of a product, but the innovation will translate into increased perceived value *only* if customers value higher quality. Some customers may not need higher quality.

For my survey, respondents answered questions about innovation from a scale that has been previously studied in the context of market orientation and performance (Calantone, Garcia, & Droge, 2003; Hurley & Hult, 1998). Innovation and value have a negative correlation of 0.123 which is statistically different from zero. VIF tests show no evidence of multicollinearity. When I included both innovation and value as mediators in the same model, value is statistically significant, while innovation is not. The path from market orientation to innovation is not statistically significant, nor are any of the paths from innovation to the performance variables. Adding innovation into the model with value does not increase the R^2s of any of the performance variables either. Still, as this was an exploratory study of innovation and value, future researchers should consider both innovation and value as mediators in the same model to determine if they are separate or if value subsumes innovation.

Related research also sheds light on the need to identify what impacts the links between value and market orientation. Narver and Slater (1990) control for nine market-level factors, such as industry growth and concentration, entry barriers, buyer power, and seller power. They found five of the nine factors to be significantly different from zero. In 1994, however, Slater and Narver concluded that industry characteristics have little impact on the link from market orientation to performance. Likewise, research on Indian companies found that supplier power, competitive hostility, and market turbulence were not moderators of the orientation-to-performance relationship (Subramanian & Gopalakrishna, 2001).

My study controls for some industry effects by asking respondents to compare themselves to their direct competitors and includes self-reported measures of barriers to

entry, buyer power, firm size, and cost disadvantage. However, given the contradictory findings of past studies, future cross-industry research should continue to control for market-level factors.

Further analyses could divide the data by industry type to determine if these results vary by industry type. Another way of further scrutinizing the role of value would be to dissect the data into product manufacturers versus service providers to investigate and compare the role of value in these two different types of industries. Ideally, further analyses might reveal interactions between industry or market characteristics that would more fully explain the role of value. Sampling would most likely need to move beyond single SBU firms and the contact data available for those firms, as a larger number of respondents would be unlikely.

As with past studies of orientation (Gatignon & Xuereb, 1997; Greenley, 1995), the self-reported measure part of this one suffers from the potential for mono-method bias which may affect the survey responses. With only one respondent from each company, triangulating the responses is not possible, especially those of the self-reported performance variables. I attempted to improve the meaningfulness of the results by using concrete performance measures from 10K reports. The results using these performance measures, while interesting, are not as strong as they could be. This may be because I must assume that all competitors of publicly traded, single SBU firms are also publicly traded, single SBU firms, and the rankings of ROA and sales growth omit firms with multiple SBU's that compete in multiple-SIC codes. Future research should use multiple informants and objective measures at either the SBU or firm level.

1.6.4 Conclusions

This study is an important step in understanding the orientation-to-performance link. By including value in the orientation-to-performance equation, I see that value is at least a partial mediator, and the impact of orientation is overwhelmingly indirect, through value for self-reported measures. For managers, the implications of the study are clear. Previously, much research showed that market orientation was the key to above-average firm or SBU performance. However, this study shows that across diverse firms and industries, learning about customers and markets and then using that knowledge to create valuable offerings for the customers will lead to above-average performance. Value serves as a link between market orientation and performance. In the competitive marketplace, firms should focus on value creation, facilitated by a market orientation, to enhance firm performance.

APPENDIX A: Questions Included in the Market Orientation to Performance Models

A.1 Market Orientation Measures (20 items)

	Strongly Disagree				Strongly Agree
1. In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.	1	2	3	4	5
2. In this business unit, we do a lot of in-house market research.**	1	2	3	4	5
3. We are slow to detect changes in our customers' product preferences.*	1	2	3	4	5
4. We poll end users at least once a year to assess the quality of our products and services.	1	2	3	4	5
5. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, regulation).* **	1	2	3	4	5
6. We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers.	1	2	3	4	5
7. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.**	1	2	3	4	5
8. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments.**	1	2	3	4	5
9. When something important happens to a major customer or market, the whole business unit knows about it in a short period.	1	2	3	4	5
10. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.	1	2	3	4	5
11. When one department finds out something important about competitors, it is slow to alert other departments.*	1	2	3	4	5
12. It takes us forever to decide how to respond to our competitors' price changes.*	1	2	3	4	5
13. For one reason or another we tend to ignore changes in our customers' product or service needs.*	1	2	3	4	5
14. We periodically review our product development efforts to ensure that they are in line with what customers want.	1	2	3	4	5
15. Several departments get together periodically to plan a response to changes taking place in our business environment.	1	2	3	4	5
16. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.	1	2	3	4	5
17. The activities of the different departments in this business unit are well coordinated.	1	2	3	4	5
18. Customer complaints fall on deaf ears in this business unit.*	1	2	3	4	5
19. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.*	1	2	3	4	5
20. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.	1	2	3	4	5

(Kohli & Jaworski, 1993)

*NOTE: Starred measures were reverse coded for data analyses.

**Questions 2, 5, 7 and 8 were not included in the final, one-factor solution.

A.2 Value Measures (Eight items)

How does your target customer segment compare your business to your direct competitors on the following attributes:

A.2.1 Least responsive						Most responsive to their individual needs
A.2.2 Worst product Quality						Best product quality
A.2.3 Least Understanding of their needs						Most understanding of their needs
A.2.4 Offers the worst total solution						Offers the best total solution
A.2.5 Most difficult to collaborate with						Easiest to collaborate with
A.2.6 Worst customer value for the money						Best customer value for the money
A.2.7 Worst customer service						Best customer service
A.2.8 Worst at dealing with problems and queries						Best at dealing with problems and queries

A.3 Performance Measures (Three items)

*How has your business unit's performance in the past two years compared to your direct competitors'?**

	Much Better	**Better**	**Equal**	**Worse**	**Much Worse**
A.3.1. Revenue Growth	☐	☐	☐	☐	☐
A.3.2. Profitability	☐	☐	☐	☐	☐
A.3.3. Customer Retention.....	☐	☐	☐	☐	☐

*NOTE: Performance measures were reverse coded for data analyses
Also, long-term question asked "How has your business unit's performance in the past four years compared to your direct competitors?"

A.4 Objective Measures

Sales Growth = (This year's sales – Last year's sales)/ Last year's sales

Return on Assets = (Net income + After tax interest expense) / (Total beginning assets)

A.5 Hyper Competition

	Strongly Disagree				Strongly Agree
1. In our market, firms aggressively position against one another by attempting to disadvantage competitors.	1	2	3	4	5
2. In our market, firms create new competitive advantages which make obsolete or match competitors' advantages.	1	2	3	4	5
3. In our market, firms attempt to stay ahead of their competitors.	4	5	1	2	3
4. In our market, firms create new competitive advantages that make the competitors' advantages irrelevant by moving to compete in another arena.	1	2	3	4	5
5. In our market, temporary advantage and short periods of profit are achievable until competitors catch up with or outmaneuver the aggressor's last competitive move.	1	2	3	4	5

A.6 Competitive Intensity

	Strongly Disagree				Strongly Agree
1. There is no price competition in this market.*	1	2	3	4	5
2. There are many strong competitors in this market.	1	2	3	4	5
3. There is a strong, dominant competitor, with large market share, in the market.	1	2	3	4	5
4. Potential customers are very loyal to competitors' products.	1	2	3	4	5
5. Potential customers are not satisfied with competitors' products.	1	2	3	4	5
6. New product introductions by competitors are frequent in this market.	1	2	3	4	5

(Song & Parry, 1997a, b)

*NOTE: Starred measures were reverse coded for data analyses.

A.7 Control Variables

	Strongly Disagree				Strongly Agree
1. We are at a cost disadvantage compared to our major competitors.	1	2	3	4	5
2. It is difficult for a new competitor to enter this market.	1	2	3	4	5
3. Buyers in this market are able to negotiate favorable prices.	1	2	3	4	5
4. We are one of the largest firms in our field.	1	2	3	4	5

Table 1–1. Performance Measures and Their Relationship with Market Orientation

	AUTHOR(S)								
Performance Measure	Narver and Slater (1990)	Jaworski and Kohli (1993)	Greenley (1995)	Pelham and Wilson (1996)	Gatignon and Xuereb (1997)	Han et al. (1998)	Appiah-Adu and Singh (1998)	Rose and Shohan (2002)	Im and Workman (2004)
ROA	Mixed								
ROI			n.s.				+		
Customer Retention	+								
Growth			n.s.	n.s.		n.s.	+		
Profitability				+		n.s.			
New Product Performance			n.s.	+	Mixed		+		+
"Overall" Performance		+							
Market Share		n.s.							
Organizational Commitment		+							
Esprit de Corps		+							
Relative Product Quality				+					
Export Sales								n.s.	
Change in Export Sales								+	
Export Profit								+	
Change in Export Profit								+	

n.s. = No significant relationship
+ = Positive and statistically significant relationship between orientation and performance
Mixed = Non-linear relationship between orientation and performance
Note: Only studies which looked at performance measures individually are listed above. Those that used combinations of performance measures simultaneously, yet did not dissect the impact on each performance measure, are excluded from Table 1–1.

Table 1–2. Published Market and Customer Orientation Studies and Their Components

Author(s)	**Publication (Year)**	**Performance Measure**	**Independent Variables and Control Variables**	**Analysis Method**
Baker and Sinkula	Journal of Product Innovation Management (2005)	New Product Success Profitability Market Share	Market Orientation Generative Learning Radical Innovation	SEM
Atuahene-Gima, Slater and Olson	Journal of Product Innovation Management (2005)	New Product Program Success	Responsive Market Orientation Proactive Market Orientation **Moderators**: Strategic Orientations, Marketing Power (within firm) **Control Variables**: Market Growth, Ease of Market Entry, Buyer Power, Technology Turbulence, Market Turbulence, Relative Size of Firm, Firm Size, Slack Resources	Regression
Atuahene-Gima	Journal of Marketing (2005)	Product Innovation	Customer Orientation, Competitor Orientation **Moderators**: Interfunctional Coordination, Market Opportunity, **Control Variables**: Firm Size, Organizational Slack, Behavior control, Output Control, Product Development Alliance, Environmental Turbulence, Market Launch Capability	Regression
Chou	Journal of American Academy of Business (2009)	New Product Development	Customer Orientation Competitor Orientation Market Orientation Superiority **Moderators**: Innovation Type, Market Position (leader/challenger/follower/nicher)	Conceptual
Ellinger, Ketchen Jr., Hult, Elmadag and Richey	Industrial Marketing Management (2007)	Employee Performance, Organizational Performance	Market Orientation **Moderators**: Employee Coaching, Training, Empowerment **Control Variables**: Age of Firm, Firm Size,	Regression
Hsieh, Chiu, Hsu	Industrial Marketing Management (2007)	Customer Satisfaction	Market Orientation, Customer Accommodations	Regression

[see next page]

Table 1– 2. Published Market and Customer Orientation Studies and Their Components (continued)

Author(s)	**Publication (Year)**	**Performance Measure**	**Independent Variables and Control Variables**	**Analysis Method**
Hult, Ketchen Jr., and Slater	Strategic Management Journal (2005)	ROI, ROA and ROE	Market Orientation, Market Information Processing **Mediators**: Organizational responsiveness **Control Variables**: Innovativeness, Learning Climate, Firm Age, Firm Size	Regression
Im, Hussain, and Sengupta	Journal of Business Research (2008)	Marketing Program Creativity	Customer Orientation, Competitor Orientation, Cross-functional Integration.	Regression
Im and Workman	Journal of Marketing (2004)	New Product Performance	Market Orientation, New Product Creativity (Innovativeness), Marketing Program Creativity	SEM
Jiménez-Jiménez and Cegarra-Navarro	Industrial Marketing Management (2007)	Organizational Memory, Market Share, Profitability, Productivity, Quality product,	Market Orientation **Mediator**: Organizational Learning	SEM
Laforet	Journal of Business Research (2008)	Innovation	Market Orientation, Strategic Orientation, Size	Descriptive Statistics
Nakata, Im, Park and Ha	Journal of Business Research (2006)	New Product Performance	Customer Orientation, Cross-Functional Integration, New Product Team Proficiency	Regression
Zhou, Brown, Dev and Agarwal	Journal of International Business Studies (2007)	Occupancy, Gross Operating Profit, Market Share	Customer Orientation, Competitor Orientation **Control Variables**: Environmental Factors, Economic Growth, Government Regulation, Entry Barrier, Competitive Intensity, Firm Size, Innovation Orientation,	Regression

(Atuahene-Gima, 2005; Atuahene-Gima, Slater, & Olson, 2005; Baker & Sinkula, 2005; Chou, 2009; Ellinger, Jr, Hult, Elmada, & Jr, 2008; Hsieh, Chiu, & Hsu, 2008; Hult, Jr, & Slater, 2005; Im et al., 2008; Jiménez-Jiménez & Cegarra-Navarro, 2007; Laforet, 2008; Nakata, Im, Park, & Ha, 2006; Zhou et al., 2007)

Table 1–3 Comparison of PLS, OLS, and LISREL

	PLS	OLS	LISREL
Measurement Error	No assumptions	Dependent and independent variables: No measurement error	Dependent and independent variables: No measurement error
Number of dependent variables	Any number	One	Any number
Indicators	Reflective and formative	Reflective only	Reflective only
Observations	Small number	Depends on # of variables	100 minimum
Mediation/moderation analysis	Good	Simple linear structure only Mediation requires three separate regressions	Good

Table 1–4. Correlation Between Performance Measures at Two Years

	Revenue	Profit	Customer Retention
Revenue	1		
Profit	0.66	1	
Customer Retention	0.53	0.56	1

Table 1–5. Correlation Between Performance Measures at Four Years

	Revenue	Profit	Customer Retention
Revenue	1		
Profit	0.66	1	
Customer Retention	0.59	0.65	1

Table 1–6. Correlation Between Latent Variables

	Short-term Performance	Long-term Performance	Value	Intelligence Generation	Intelligence Dissemination	Responsiveness	Kohli-Jaworski Market Orientation Score
Long-term Performance	0.814						
Value	0.624	0.510					
Kohli-Jaworski Market Orientation Score	0.478	0.492	0.351				
Intelligence Generation	0.336	0.487	0.227				
Intelligence Dissemination	0.465	0.382	0.207	0.234			
Responsiveness	0.205	0.190	0.377	0.177	0.331		
10K Performance	0.447	0.294	0.114	0.203	0.447	0.189	0.418

Table 1–7. Final Items for Three Factor Market Orientation Analyses

Factor	Item
Intelligence Generation	3. We are slow to detect changes in our customers' product preferences.*
	5. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, regulation).*
Intelligence Dissemination	7. We have interdepartmental meetings at least once a quarter to discuss market trends and developments
	8. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments.
	9. When something important happens to a major customer or market, the whole business unit knows about it in a short period.
	10. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
Responsiveness	14. We periodically review our product development efforts to ensure that they are in line with what customers want.
	17. The activities of the different departments in this business unit are well coordinated.
	20. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.

*NOTE: Starred measures were reverse coded for data analyses

Figure 1–1. Model 1, the Market Orientation to Performance Direct Link Benchmark Model

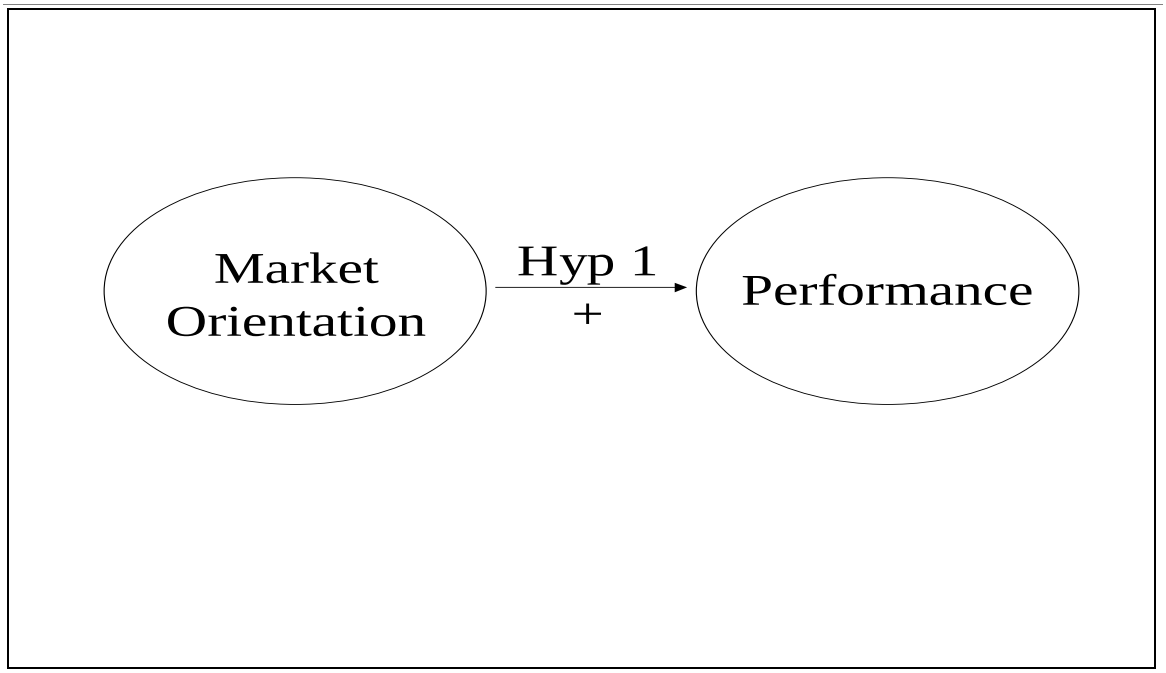


Figure 1–2. Model 2, the Value Mediation Model

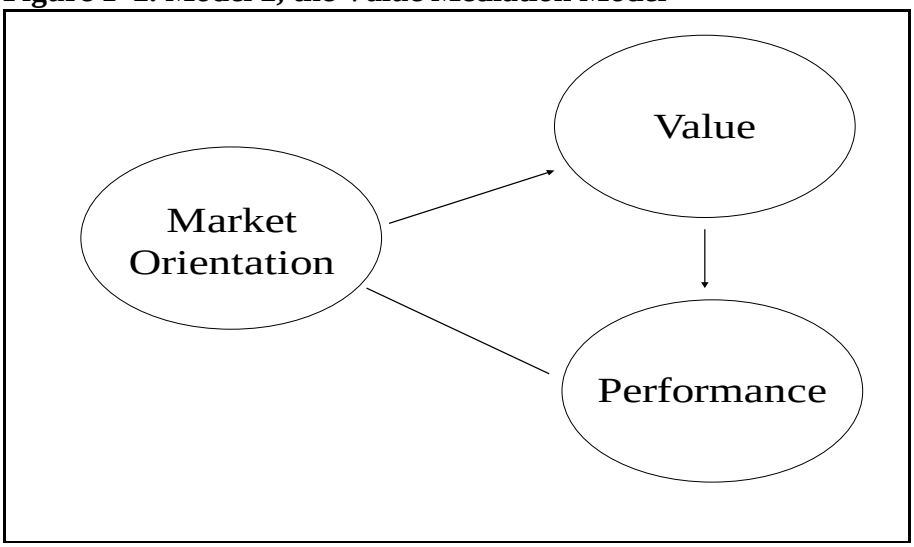


Figure 1–3. Distribution of Market Orientation Scores

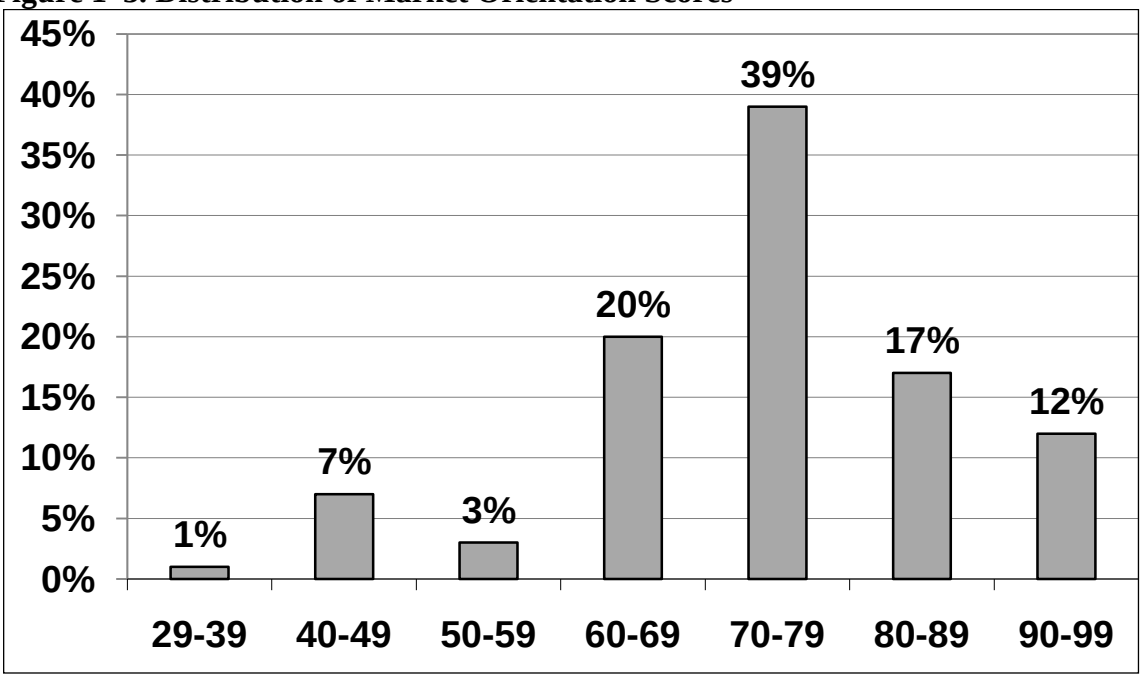
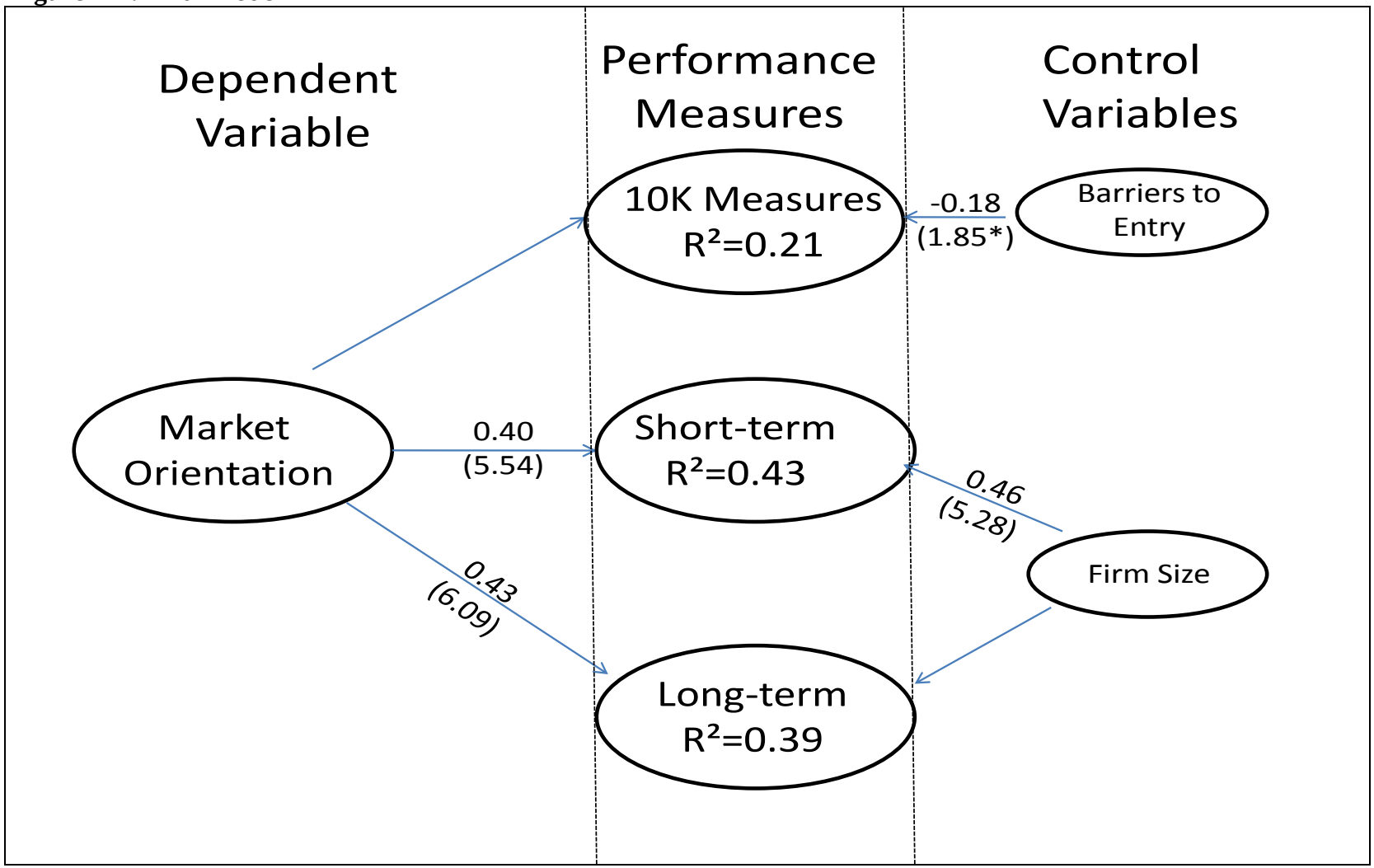
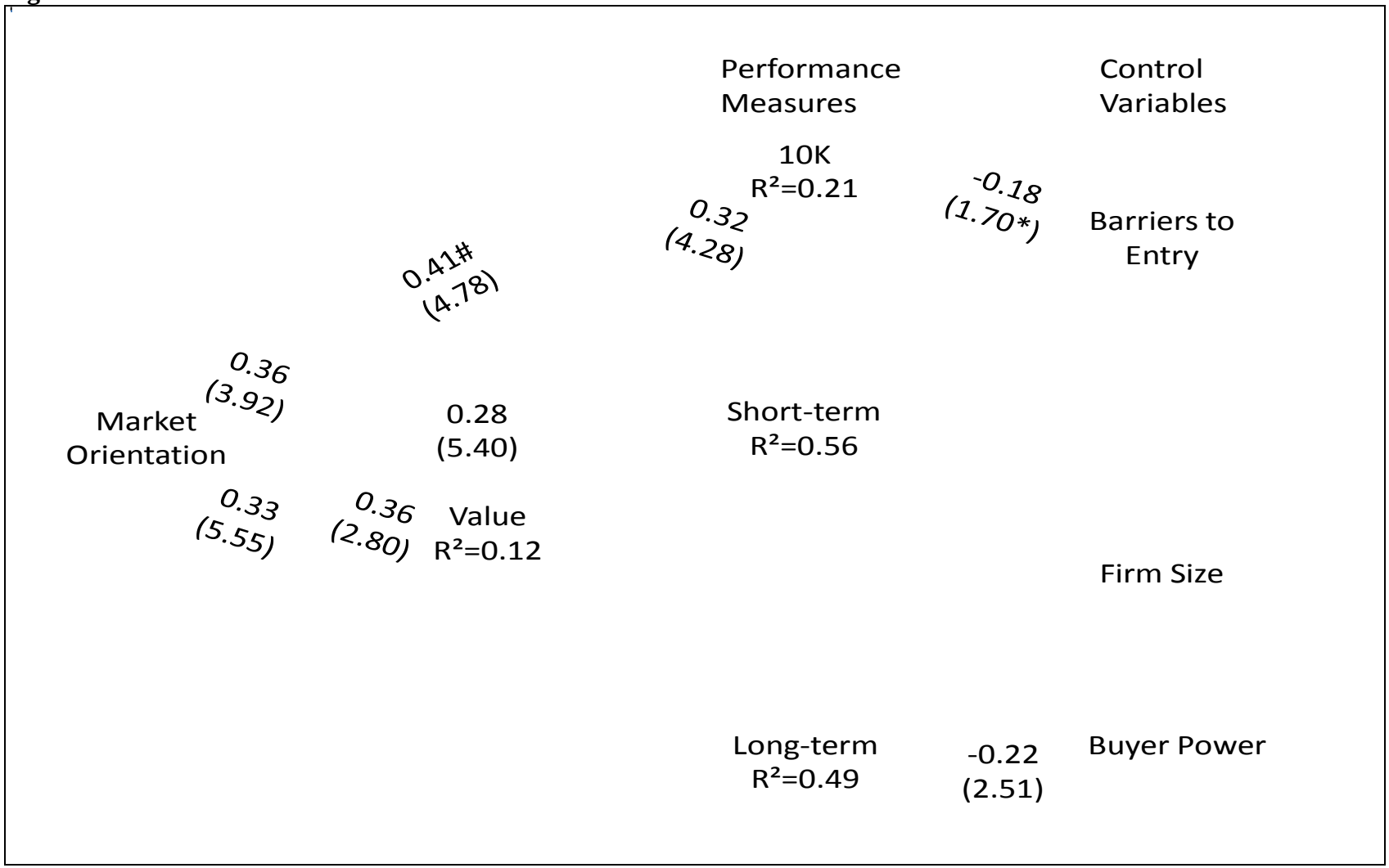


Figure 1–4. Final Model 1



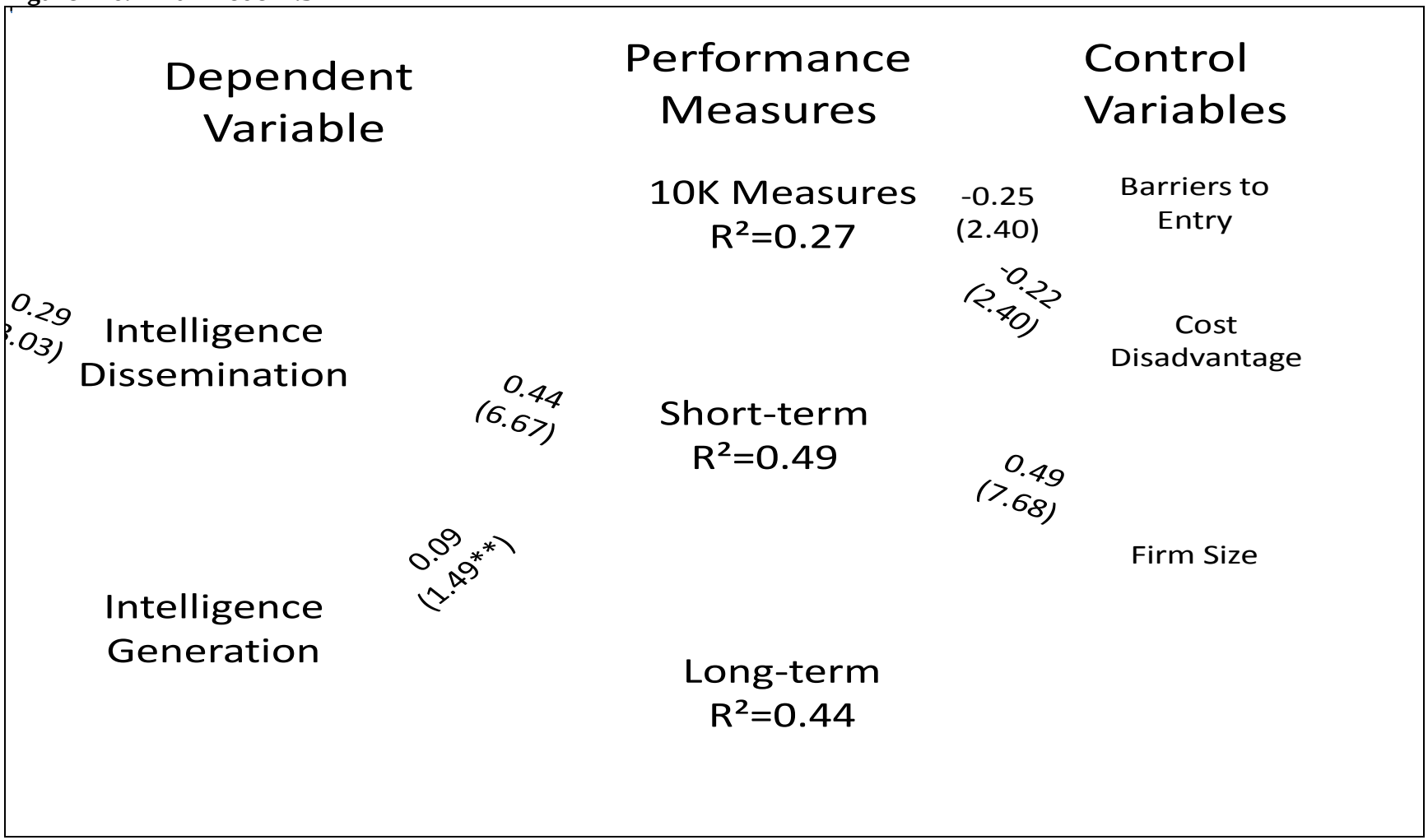
#Path coefficient (t-statistic), *Statistically significant at p = 0.10, All other paths statistically significant at p = 0.05.

Figure 1–5. Final Model 2



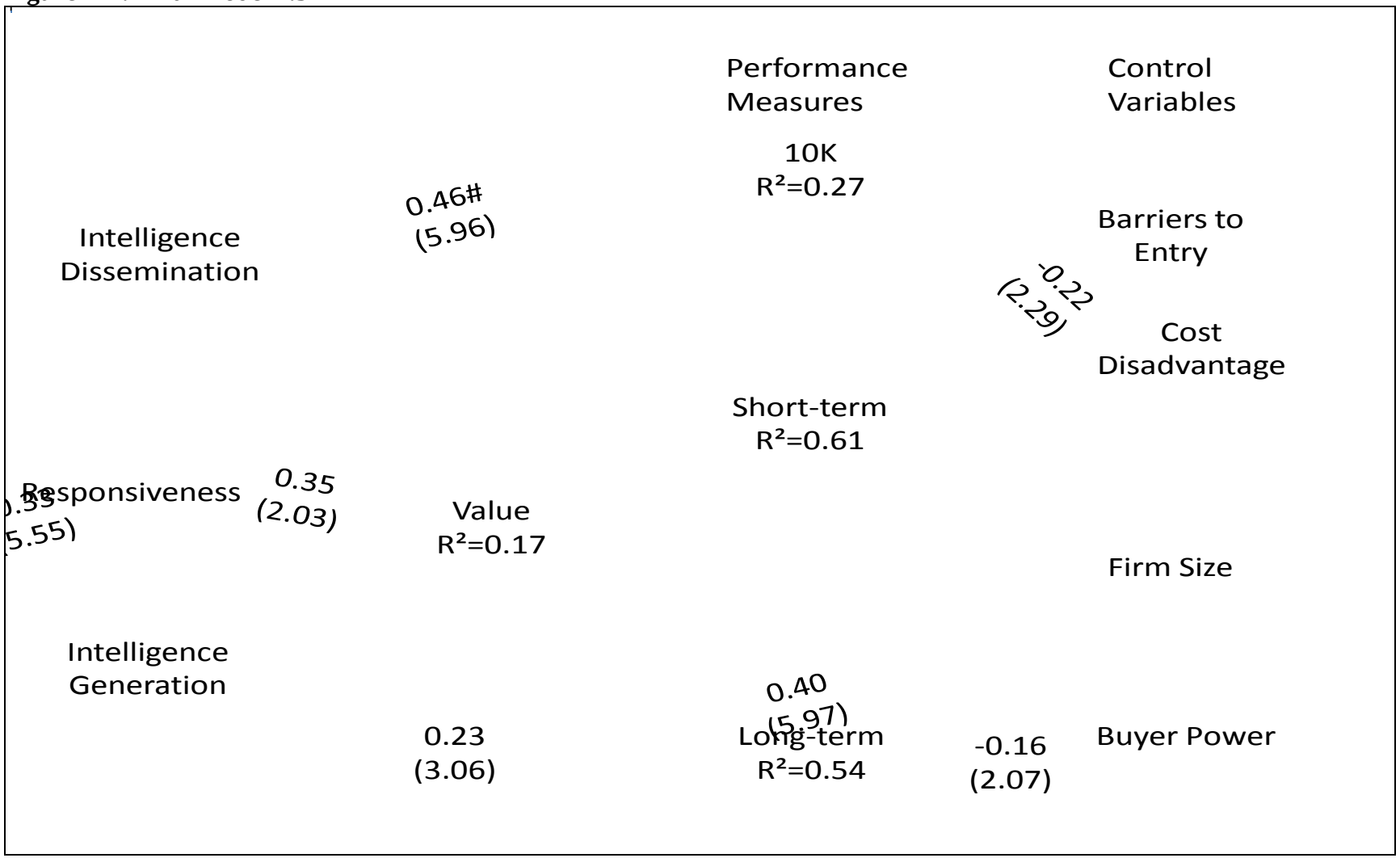
#Path coefficient (t-statistic), *Statistically significant at p = 0.10, All other paths statistically significant at p = 0.05.

Figure 1–6. Final Model 1.3



#Path coefficient (t-statistic), **Not statistically significant, All other paths statistically significant at $p = 0.05$.

Figure 1–7. Final Model 2.3



#Path coefficient (t-statistic), All paths statistically significant at $p = 0.05$.

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MARKET-ORIENTED AND CUSTOMER-LED:

SHOULD A SUCCESSFUL FIRM BE BOTH?

Essay 2

2.1. INTRODUCTION: Market-Oriented And Customer-Led: Should A Successful Firm Be Both?

As companies struggle to chart a course for strong market performance, conflicting directions continue to emerge from the marketing and strategic management literature. While research generally accepts market orientation as a positive influence on performance (Day, 1990; Ruekert, 1992), the issue is still cloudy and has become even more so as the result of semantic muddling. For years “customer orientation” and “market orientation” have been used almost interchangeably. Sometimes, customer orientation is considered as a part of market orientation, and at other times, as a standalone scale. An analysis of the three most commonly used customer orientation and market orientation scales showed high correlation among the three scales (Deshpandé & Farley, 1996). The results of the Deshpandé and Farley study appear to authorize researchers to continue to use “customer” and “market” orientation interchangeably. In fact, in a meta-analysis of market orientation research, Langerak (2003) includes works that used a customer-orientation scale in the review with little reference to the fact that the work measured only customer orientation and not market orientation. While misleading, this finding may not be unusual, given the high correlation of the customer orientation and market orientation scales and common, interchangeable usage of the two terms.

However, some research concluded that firms that were too close to their customers performed poorly (Christensen & Bower, 1996). As new studies found contradictions, the debates re-emerged between

1. market orientation and customer orientation, and
2. the link between orientation and performance.

Slater and Narver (1998) suggest that part of the problem is the lack of clarity in differentiating between customer orientation (the authors dub firms with a customer orientation "customer-led," and following their usage, I will use the term also) and market orientation. The former has a short-term focus and the latter a long-term perspective. In the market environment, Slater and Narver (1998) suggest that a firm should have enhanced performance if it properly calibrates its long- and short-term focus.

Researchers have tried to explain the inconsistencies of the impact on performance of both market and customer orientations; they hypothesize that the path is not direct, but is instead a mediated relationship. Studies have examined mediation in the market-oriented- and customer-led-to-performance link, with innovation (Han et al., 1998), value (Bens, Day, & Ross Jr, 2003), customer relationships (Siguaw, Simpson, & Baker, 1998), and product quality (Chang & Chen, 1998) among the potential mediators investigated. Others (Christensen & Bower, 1996) have looked at the impact of market orientation on innovation and resource allocation without then going on to the next step, firm performance. The published studies appear to indicate that a mediated model better explains the market/customer orientation-to-performance link.

This research helps to resolve the debate and clarify both the differences and synergies between customer-led (customer oriented) and market orientation. To achieve the goals of the research, I investigate two main issues:

1. Are customer led and market oriented two distinct orientations?
2. In what market environments should a firm or strategic business unit (SBU) be either customer led or market oriented, or should a successful firm be a combination of both?

Previous market and customer orientation studies have either not included market environmental factors as moderators or have had inconsistent results. Including environmental moderators will also illuminate when being customer led and/or market-oriented is an advantage.

This essay investigates the differences and similarities between being customer led and market-oriented; it also deals with which orientation a company should focus on, given its market environment. In developing the research, I review market and customer orientations in studies published in the academic literature. I look first at studies that considered market environments as potential moderators and then at studies with mediators. Next, I explore the inconsistencies and discrepancies of previous customer- and market-orientation literature. By extricating the similarities and overlap of customer and market orientation, I show that previously the two terms have been closely related and used interchangeably. At the same time, I discuss the distinct characteristics of customer-led and market-oriented companies based on past research and recent articles.

My research begins with definitions of the two approaches in order to adapt existing scales and develop new ones that show discriminant validity for customer and market orientations. This essay incorporates the preliminary research by Narver, et al. (2000) that investigates the differences between what they call “reactive” market orientation and “proactive” market orientation. I test additional measures for market-oriented and customer-led characteristics that the previously developed scales (Narver, Slater, & MacLachlan, 2000) do not contain. I then use the new scales to empirically test the hypothesized model. The empirical evidence highlights the need for measuring market-oriented and customer-led scores separately. The results will aid in resolving the

debate between market-oriented and customer-led, by showing that they are different and have different relationships with performance.

2.2. BACKGROUND AND DEVELOPMENT

2.2.1 Theoretical development

Langerak (2003) comprehensively reviews the results of 51 published studies that measured the impact of orientation on performance. The review includes four articles that use a customer-orientation scale. All of the studies in the review used either the

- Deshpandé et al. (1993), customer-orientation scale (7 percent),
- (Kohli et al., 1993) MARKOR, a market-orientation scale (34 percent),
- Narver and Slater's 1990 market-orientation scale (41 percent), or
- an adaptation of one of the previously mentioned scales (18 percent).

The Deshpandé et al.'s (1993) customer-orientation scale has the lowest share of positive effects of orientation on performance. A caveat is necessary, as it is the least used of any of the published scales. By examining the percent of positive effects, non-significant effects and negative effects of orientation on performance found with each scale across numerous published studies, Langerak (2003) concludes that the predictive power of a model is partially dependent on the scale used.

While the positive relationship between market orientation and, to a lesser extent, customer orientation and seller performance has been generally accepted, Langerak's review suggests that being market or customer oriented does not always—or at least does

not overwhelmingly—lead to enhanced performance. In fact, only 52 percent of the studies report significant and positive effects of market orientation on performance. Another 24 percent report non-significant effects, 20 percent have mixed effects, and four percent report significantly negative effects (Langerak, 2003).

Results may depend on the measure of business performance used. Single measures of business performance (as opposed to indices composed of multiple measures) reveal inconsistencies. For example, three studies (Avlonitis & Gounaris, 1997; Pelham & Wilson, 1996; Ruekert, 1992) found that market orientation had a positive and significant impact on profitability. Four studies (Deshpandé, Farley, & Webster, 2000; Greenley, 1995; Han et al., 1998; Pelham & Wilson, 1996) found the impact of customer or market orientation to be not significantly different than zero. However, customer orientation's impact on growth was positive in another (Appiah-Adu & Singh, 1998). Two more studies found market orientation to have a positive impact on "Overall" performance (Baker & Sinkula, 1999; Jaworski & Kohli, 1993). Langerak (2003) presents a complete review of the customer and market orientation studies.

These mixed and inconclusive results highlight the need for a model that better explains when and how customer and market orientation impact performance. Coltman and his co-authors (2008) suggest that misspecification of the market orientation scale and model are causes of the inconsistencies in results. Others suggest that the inconsistencies are a result of considering market orientation as a single scale (Atuahene-Gima, 2005; Atuahene-Gima et al., 2005). Kohli and Jaworski (1993) and Narver and Slater (1998) mention that their scales consist of multiple components; in general, models should include separate components rather than aggregating the scale items to one market

orientation scale. Additionally, when modeling the multiple components of market orientation, formative models should be used instead of the reflective models that are assumed in most marketing literature (Coltman, Devinney, Midgley, & Venaik, 2008).

2.2.2 Evidence for a moderated model

Inconsistent results of previous orientation studies underscore the fact that market research needs a moderated model. Inconsistencies run both within and across studies. Slater and Narver first demonstrated the need to include moderators when they controlled for nine market-level factors, five of which they found to be significant (industry growth, concentration, entry barriers, buyer power, and seller power) (Slater & Narver, 1994). Later, they found that competitive hostility was not a significant moderator and market growth was a significant and negative moderator of the market-orientation-to-sales-growth path. They also found that market turbulence negatively moderates the market-orientation-to-Return-on-Assets (ROA) path. At the same time, technological turbulence negatively moderates the path to new product development success (Slater & Narver, 1994).

Across studies, a potential moderator could show positive, non-significant, non-monotonic, or negative impacts on performance. For example, Jaworski and Kohli (1993) found competitive intensity to be non-significant. Two other researchers found moderation by competitive intensity to be positive on both new product success and organizational performance (Appiah-Adu, 1997; Bhuian, 1997). However, still another study showed competitive intensity had a significant, non-monotonic, moderating impact on the customer-orientation-to-sales-growth path (Appiah-Adu & Singh, 1998).

Competitive intensity negatively moderates market-orientation-to-"performance after a crisis" (Grewal & Tansuhaj, 2001). More recently, Ellinger et al. (2007) found that empowerment was not a significant moderator, but employee coaching and training did have significant impacts, depending on the type of performance measured. While Matear et al.'s (2002) study showed no significant impact of innovation as a moderator, Chou (2009) hypothesizes that it should have an impact. Given the contradictory results within and between studies, the current research needs clarification. Table 2–1 contains 11 of the studies which included moderators for the customer- or market-orientation-to-performance path.

2.2.3 Evidence for a mediated model

While the empirical evidence for a mediated model is less than that for the moderated model, and researchers usually assume the market-orientation-to-performance relationship is direct, theorists have expressed the need for a mediated model since the late '80s (Day & Wensley, 1988). Day and Wensley (1988) first hypothesized, but did not empirically test their hypotheses, that superior customer value and lower relative costs were mediators in the orientation-to-performance relationship.

Though some researchers believe that innovation is a *moderator*, Slater and Narver (1994) hypothesized that innovation would *mediate* the market-orientation-to-performance path. Han et al. (1998) investigated this more intricate relationship by theorizing that innovation mediates orientation and performance. The authors built on previous research in innovation that had shown that market orientation lead to innovation

and separate literature that showed that innovation lead to superior performance. However, before Han et al. (1998), none had tested the orientation-to-innovation-to-performance relationship.

While Han et al. (1998) found that innovation mediates the orientation-to-performance relationship, not all research has consistently and fully replicated their results. Researchers subsequently included innovation as a mediator in their investigations. First, Baker and Sinkula observed only partial (though positive) mediation (1996), then Matear et al. (2002) find complete positive mediation by innovation. Investigating other potential moderators, one study found that customer trust in suppliers, a relationship indicator, was a positive and significant mediator, but the same study found another relationship indicator, customer willingness to be co-operative with suppliers, to be a negative mediator (Siguaw et al., 1998). Later, researchers discovered that organizational responsiveness and organizational learning are positive and complete mediators of performance (Hult et al., 2005; Jiménez-Jiménez & Cegarra-Navarro, 2007). Table 2–2 contains eight studies that have investigated or theorized about the role of mediators in the customer- and/or market-orientation-to-performance path. Of the nine mediators reported in these studies, innovation, including technological innovation, is the most commonly identified mediator.

Given the repeated positive (at least partial) mediation of innovation on the customer-led- and/or market-orientation-to-performance path and the previously investigated impact of customer value as a mediator, this study includes both innovation and customer value as potential mediators in the same model. While the inclusion of moderators and mediators should aid in reducing the inconsistencies in the market and/or

customer orientation studies, another area of confusion also needs to be cleared up. Some of the differences in the impact or role of the moderators and/or mediators, as discussed above, may come from whether the authors are investigating customer orientation or market orientation. In the ensuing sections, I discuss the differences and similarities of market orientation and customer orientation.

2.2.4 Customer orientation versus market orientation

One area of semantic confusion coming from the marketing literature is in the use of the terms “customer orientation” and “market orientation.” Studies have described customer orientation as “the sufficient understanding of one’s target buyers to be able to create superior value for them continuously” (Narver & Slater, 1990) or simply as “getting close” to the customer (Shapiro, 1988). At the same time, market orientation “characterizes an organization’s disposition to deliver superior value to its customers continuously” (Han et al., 1998; Slater & Narver, 1994). What is *not* elucidated is, what is the difference between customer orientation and market orientation? Scales measure one, the other, or both. Some authors choose to use the term market orientation and others refer to customer orientation (Appiah-Adu & Singh, 1998). Anecdotally, a belief existed that market orientation and customer orientation were very similar if not definitions of the same thing (Shapiro, 1988). Research by Deshpandé and Farley (1996) supports the interchangeability of the two terms.

Narver and Slater (1990) view customer orientation as one of three parts of market orientation along with competitor orientation and inter-functional coordination.

They developed a 15-item scale that covers all three of these areas. At approximately the same time Narver and Slater were developing their scale, Deshpandé, Farley, and Webster (1993) were developing what they called “a customer-orientation scale” even though the nine-item scale considered the role of competitors. The researchers included questions regarding the extent to which a company knows its customers and the degree to which it is customer focused, compared to its competitors. Kohli, Jaworski, and Kumar (1993) developed a third scale, also referred to as a market-orientation scale. This 20-item scale measured many aspects of customer and competitor focus as well as the firm’s own practices.

In order to compare the three scales and see if there were similarities between market- and customer-orientation measures, Deshpandé and Farley (1996) conducted a prospective meta-analysis of the three most common scales:

- Kohli et al. (1993) (MARKOR, Appendix A, Scale 3a),
- Narver and Slater (1990) (NS, Appendix A, Scale 3b), and
- Deshpandé, Farley, and Webster (1993) (DFW, Appendix A, Scale 3c).

These were the first widely recognized scales for customer and market orientation. Deshpandé and Farley conducted a survey which contained all three scales in order to test reliability, predictive validity, and discriminative validity. In addition, they then created a new 10-item scale that incorporated items from all three scales. They found that all three of the original scales had sufficient reliability, all measured market orientation, and all had statistically significant predictive validity with the performance measures used. As should be expected, they found high correlations among the three original scales. Because some items in each scale are redundant, and because the scales appear “interchangeable,”

the authors condensed the scales to one scale. From the 44 items that comprise the original three scales, the authors used factor analysis to show that of the three distinct factors, one factor explains 30.4 percent of the variance, while the other two factors explain only 7.9 percent and 5.4 percent. The one factor has ten items that come from all three of the original scales. Five items come from NS, two from DFW, and three from MARKOR. Appendix A Scale 3d shows the synthesized scale (Deshpandé and Farley 1996). The more parsimonious model correlates highly with the three original models, and performs well as a predictor of performance. The drawback to this new scale is that the items all deal with "customer focus." Competitor orientation and competitive intelligence items do not load on the new scale. The authors specifically state that "[f]urther development of scales which uniquely measure dimensions such as Competitor Orientation would be helpful (p. 225)" (Deshpandé & Farley, 1998b). This new scale, while more parsimonious than any of the three original scales, has not been widely adopted in the published academic literature.

While the results of Deshpandé and Farley (1996 and 1998) would appear to support the interchangeability of customer orientation and market orientation, inconsistencies in previous market/customer orientation literature and the different explanatory power of the scales themselves show that caution is warranted. The problem with blindly accepting the interchangeability of market/customer orientation came to light when Christensen and Bower (1996) concluded that firms close to their customers performed poorly as compared to those that were not so close, contradicting conventional wisdom of academic researchers and managers. Therefore, while the scales are highly

correlated, there is evidence, as I will discuss below, that they should not be considered as measuring the same seller characteristics.

2.2.5 Customer led is not market oriented

Despite the common confusion between customer orientation and market orientation, Slater and Narver (1998) suggest that the inconsistencies in previous orientation literature are caused by the misuse of these similar but distinct orientations: "…without realizing it, scholars are talking about two separate management philosophies" (p. 1002). To decrease the semantic confusion, they refer to "customer led" rather than "customer oriented" or "customer orientation." In this essay, I follow Slater and Narver and use the term "customer-led" instead of "customer orientation" even when discussing past studies that specifically referred to customer orientation. Slater and Narver further reduce the confusion by offering concrete definitions of both customer-led and market-oriented firms. Table 2–3 highlights the distinct characteristics of market-oriented and customer-led companies. A customer-led philosophy consists of short-term responses to expressed customer needs and wants. The market-oriented seller has a longer term view, is committed to understanding the latent needs of customers, and develops innovative products or services that meet the latent needs of current and potential customers. Being customer led may be sufficient in a stable environment (e.g. retail banking). However, it may be inadequate in turbulent environments (Slater & Narver, 1998).

Slater et al. (2000) delve further into Deshpandé and Farley's (1996) work by asserting the existence of three types of market orientation: reactive, proactive, and total market orientation. A firm with a reactive market orientation meets or responds to immediate needs of customers, and a firm with a proactive market orientation searches for future needs of customers. The third type, total market orientation, is a simple average of the two other market orientations. Reactive market orientation and proactive market orientation focus specifically on customers, their needs (present and future, respectively), and their satisfaction. Additionally, these scales include items about dissemination of information about customers within the seller's organization. While these scales specifically do not include items about competitor focus or potential customer and market focus, Slater and Narver's 1998 paper explicitly discussed the importance of learning about the capabilities and plans of competitors and searching for potential customers and unserved markets (see Table 2–3). However, the reactive or proactive market orientation scales that they later developed do not include measures for these facets of market orientation.

Recent research into the differences between responsive (or reactive) market orientation and proactive orientation shows that both are needed for positive new product performance, and that simply aggregating the two scales into one does not explain new product program performance as well as the two separate scales (Atuahene-Gima et al., 2005). Coltman et al. (2008) used the reactive and proactive scales, developing what they termed reactive and proactive performance measures (level of repeat business with valuable customers and success at generating revenues from new products, respectively)

to test their hypothesis that the traditionally accepted market orientation scales should be broken into their components and modeled formatively instead of reflectively.

While Slater and Narver (1998) say that being entirely customer-led may be sufficient in a stable environment, they do not advocate being either solely market-oriented or solely customer-led. Indeed, they suggest that businesses today need to balance both current and future needs of their customers and prospective customers if they wish to flourish. The question is then: what ratio of market oriented to customer-led strategies should a company strive for? I hypothesize that the level of market orientation and the existence of customer leadership in a company impacts the long- and short-term financial performance of sellers. Market environment, competitive factors, and size of firm can determine the position (Connor, 1999). Following, I develop hypotheses to help explain the trade-offs a seller faces in being customer led and/or market oriented.

2.3. HYPOTHESES ON MARKET ORIENTATION AND CUSTOMER LEADERSHIP

While market-oriented and customer-led terms have until now been used interchangeably, there is sufficient evidence to suggest that this mixing of two truly distinct concepts increases the inconsistencies in studies of market orientation's impact on business performance (Slater & Narver, 1998, 1999). In this research, I separate short-term, customer-led components from long-term, market-oriented components, thereby enabling a clearer view into when and how orientation impacts business performance. Additionally, as a result of this separation, I can articulate a more informed balance between customer leadership and market orientation to help firms improve success in

competitive markets. Despite previous research in market orientation, the relationships between

1. customer-led organizations and business performance and
2. market-oriented organizations and business performance

remain unclear. Given the differences between the two, I hypothesize that being customer led will have a positive impact on short-term performance, while being market oriented will have a positive impact on long-term performance. In general, the hypotheses on the impact of market orientation and being customer led appear in Table 2–4. However, market orientation will have more impact on performance in turbulent and highly competitive markets, while being customer led is sufficient in stable markets. Table 2–4 does not reflect the impact of market environment or mediation. The ideal balance between customer-led and market-oriented approaches will depend on the market environment. As previous studies have found, I hypothesize that market orientation will have a positive impact on innovation (Han et al., 1998), while being customer-led will not positively impact innovation. Additionally, both will have positive impacts on the second mediator, value creation. Figure 2–1 graphically shows the hypotheses and the results of the hypothesis testing.

2.3.1 Hypotheses on performance

H1: The short-term impact of being customer led

By definition, being customer led implies a short-term focus, centering on the expressed needs of current customers. Customer-led companies use satisfaction surveys

and snapshots of current behaviors and events to calibrate activities (Slater & Narver, 1998). Slater and Narver (1998) explain that customer-led theory has been

> …criticized for contributing to many things including incremental and trivial product development efforts (Bennett & Cooper, 1979), myopic R&D programs (Frosch, 1996), confused business processes (Macdonald, 1995) and even a decline in America's industrial competitiveness (Hayes & Wheelwright, 1984) (p.1001).

Some studies of the link between customer-led and business performance find a positive relationship (Appiah-Adu & Singh, 1998; Deshpandé & Farley, 1998a). Based on the short-term focus implied by customer leadership, I hypothesize:

H1a: Being customer led will have a positive impact on short-term firm performance.

Even though being customer led is a short-term focus and should impact short-term seller performance, there is no reason to believe that being reactive and meeting the immediate needs of customers will enhance long-term financial and non-financial performance. The lack of long-term focus in customer-led companies leads me to hypothesize:

H1b: Being customer led will have no significant impact on long-term firm performance.

H2: Market orientation, the long-term impact

In contrast, being market oriented suggests a long-term focus by trying to meet the latent needs of both current and potential customers (Slater & Narver, 1998). While past research has been inconsistent, numerous studies have shown the positive and significant impact of market orientation on Performance (Deshpandé & Farley, 1996;

Kumar et al., 1998). Market-oriented firms look not only for the immediate payoff from current customers but also search for ways to gain new customers by developing new offerings that the customers would value (Slater & Narver, 1998). Since a market-oriented firm concentrates more on future needs and value creation, rather than focusing on immediate customer satisfaction as a customer-led firm does, being market oriented should have a less positive effect on short-term financial and non-financial performance. Building on the long-term focus and past studies of market orientation, I hypothesize:

> **H2a: Being market-oriented will have no significant impact on short-term firm performance.**
>
> and
>
> **H2b: Being market-oriented will have a positive impact on long-term firm performance.**

2.3.2 Hypothesis on moderation, market environment

Previous studies of moderators of the customer/market-orientation-to-performance path have had numerous inconsistencies. Of the 15 moderators reported in the literature and shown previously in Table 2–1, three stand out as most consistently studied: market turbulence, technological turbulence, and competitive intensity. Market turbulence focuses on the changing composition of a firm's customers and the customers' changing preferences. Technological turbulence deals with the rate of change of the technology used to produce or deliver goods and services to customers (Kohli and Jaworski, 1990). Song and Parry (2009) define competitive intensity as "the ability and willingness of competitors to alter marketing mix decisions in order to gain competitive

advantage" (p.146). Researchers have examined technological turbulence and found it to be non-significant in four studies (Appiah-Adu, 1997; Bhuian, 1997; Harris, 2001; Jaworski & Kohli, 1993). Research has found market turbulence to be significant, although two published studies reported it as a non-significant moderator (Jaworski & Kohli, 1993; Subramanian & Gopalakrishna, 2001). Greenley (1995) and Harris (2001) found market turbulence to be a significant non-monotonic moderator, while Slater and Narver (1994) and Appiah-Adu (1997) found a significant but negative moderation impact of market turbulence.

Researchers have also explored competitive intensity. First, Jaworski and Kohli (1993) found competitive intensity to be non-significant. Later, researchers found it to be a negative moderator after a crisis (Grewal & Tansuhaj, 2001). Three other studies found competitive intensity to be either a significant and positive moderator (Appiah-Adu, 1997; Bhuian, 1997) or a significant non-monotonic moderator (Appiah-Adu & Ranchhod, 1998).

Slater and Narver offer an explanation as to when highly competitive markets may act as moderators of the market-oriented- and customer-led-to-performance paths. Being customer led is, by definition, reactive and short term in focus. In a stable environment, a customer-led company will be able to sufficiently respond to the expressed needs of current customers and keep customers happy (measured through satisfaction surveys). In contrast, in highly competitive markets, being responsive to current customers' expressed needs is insufficient. With rapid changes by the competitors and the customers, firms cannot respond to only what goes on around them; they must sense what is going to happen and behave proactively (1998). Therefore, despite the

inconsistent results of previous research on competitive intensity, I posit that competitive intensity will moderate both the path from being market oriented to performance and the path from being customer led to performance. However, as the impact will not be the same, I offer a two-part hypothesis:

H3: Competitive intensity will moderate the performance impacts of being market oriented and customer led.

a. Being customer led will have a positive impact on performance in stable markets but not in highly competitive markets.

b. **Being market oriented will have positive impact on performance in highly competitive markets but not in stable markets.**

2.3.3 Hypotheses on Mediation

As in Essay #1, I study the impact of mediators in the orientation-to-performance relationship. Table 2–2 (Mediators) contains previous research into the impact of market and/or customer orientation on performance, including the possible role of mediators. The published mediation literature has shown most mediators to be positive with the exception that cooperative norms have a negative impact on performance (Siguaw et al., 1998). Innovation is the most studied mediator. Research results show it completely mediates the market-orientation-to-performance path (Baker & Sinkula, 1999; Han et al., 1998) or at least partially mediates the relationship (Matear et al., 2002). I include innovation in the model and also, building on Essay #1, value.

Innovation

Market-oriented businesses look for new customers they can serve, and they try to meet their current customers' (and potential customers') latent needs. In studies of market orientation's impact on performance, Han et al. (1998), Baker and Sinkula (1996), and Matear et al. (2002) found that innovation at least partially mediated the market-orientation-to-performance path. Innovative companies, like market-oriented ones, will try to meet latent needs of customers. Therefore, I hypothesize:

> **H4: Innovation will mediate the market-oriented-to-performance path in both the short- and long-term**.

In contrast, customer-led companies will suffer from the "tyranny of the served market" and will make only small changes (Hamel & Prahalad, 1994). Therefore, I hypothesize:

> **H5: Innovation will not mediate the customer-led-to-performance path**.

Value

Businesses that are market-oriented, customer-led, or both are intrinsically interested in creating value for their customers. Market-oriented firms create value for current and prospective customers while customer-led firms create value for their current customers by meeting their expressed needs. Prior research (Day & Wensley, 1988; Sawhney, 2002) hypothesized value as a mediator of the customer/market-orientation-to-performance path: however, later research (Bens et al., 2003) shows it to be a partial mediator. In order to show that both market-oriented and customer-led businesses create

value for their customers, I will include value in the model as a potential mediator for both. Building on Essay #1, I posit:

> **H6: Value will mediate both the customer-led-to-performance and market-oriented-to-performance relationship**.

The above hypotheses describe the customer-led and market-oriented performance model pictured in Figure 2–1.

2.4. RESEARCH DESIGN

2.4.1 Data collection and sample

In order to develop the survey instrument, I surveyed two waves of MBA and Executive MBA students at a large Midwestern University. From these pre-tests, I received 59 usable surveys in the first wave and 39 usable surveys for the second pre-test.

In order to investigate firm performance without having to receive multiple responses from each company or without correcting for multiple SBUs, with their varying performance within a company, I surveyed single SBU firms. Additionally, the firms had to be publicly traded to be included in the survey. This was to ensure that the definition of a single SBU firm would be similar among the companies and that performance information from publicly filed reports would be available.

To obtain a sample of only single-SBU firms, I searched the WRDS database of 10K filings (required for publicly traded companies by the S.E.C.), and selected only those that report one SBU. The 10K filings lag the calendar year, and I used the available information for 2003. In 2003, there were 4,154 single-segment companies. Of those

companies, 3,768 had employer identification numbers (EIN). In order to find mailing addresses and contact names for each company, I used the Dun & Bradstreet (D&B) service. D&B includes the EIN of each company within its database, and they provided us with contact names, job titles, and addresses for only the single-SBU firms. Of the 3,768 companies with EINs, 1,526 companies had D&B listings which included contact information for a person in sales, marketing, vice-president, or president of the company. 40 percent of the contact names were for the company president and 20 percent held a title of "manager." Of the total, 589 of the companies had more than one contact name available. Using job titles, I was able to target those who were in positions that dealt with the issues covered by the survey. The data frame included companies from all 50 states in the U.S. No specific selection was based on state or geographic location, except to exclude overseas firms or establishments of US firms overseas.

Once I had identified the contacts, I mailed the prospective respondents an eight-page questionnaire booklet (seven inches by eight and a half) along with a postage paid envelope for the survey's return. The mailing included a cover letter with the questionnaire and information on a five-dollar donation that would be made to one of six charities if the respondent completed the questionnaire. The charities that the participants could choose from were Habitat for Humanity, Make a Wish Foundation, World Wildlife Fund, Big Brothers/Big Sisters, St. Jude Children's Hospital, and the Susan G. Komen Breast Cancer Foundation. Ten days after the survey was mailed, I sent reminder postcards to all recipients who had not responded. 119 of the packets came back labeled as "undeliverable." The first wave of mailing brought 46 responses. Two weeks after the reminder postcard went out, I mailed another questionnaire booklet, cover letter and

postage-paid envelope to the 1,950 who had not responded. Again, ten days later, a second reminder postcard went to the non-responders. From this second wave, 27 more responses arrived, for a total response rate of four percent. The first wave of survey booklets was yellow, and the second wave was white in order to easily identify which mailing elicited a response from each respondent. No company had more than one responder, which could result in mono-method bias. I discuss this issue within "Limitations and Implications for Future Research," and, as described later, I also address the issue by supplementing the survey data with objective performance measures from the 10K filings of the surveyed firms.

In an attempt to increase the number of respondents, I also surveyed students in an evening and an executive MBA program at a large Midwestern University. Of the 56 students who responded to the questionnaire, the differences between evening and executive students were not statistically significant. However, the responses between the mail survey responders and the MBA students differed significantly (responses to 35 percent of the questionnaire items were statistically different). This difference appears to be due to years of experience for the MBA students versus the mail survey respondents (9.7 years versus 27.4 years). Given the prevalence of people with the title of "President" to whom the survey was mailed, this is not surprising. I chose to use the 73 responses received from the mail survey in the data analyses because their companies are single SBU firms, and I can connect their responses to their 10K data filed with the SEC.

2.4.2 Development of customer-led and market-oriented measures

Following commonly accepted methods for scale development (Churchill, 1979), I developed scales for being customer-led and market-oriented. I based the scale construction on a large set of previously published and tested measures, and I developed and pretested additional questions that are based on the definition of customer-led organizations in Slater and Narver (1998). The first pretest included all the items from Narver et al.'s (2000) market orientation "reactive" and market orientation "proactive" scales (Appendix A Scales 1 and 2). In addition to these 15 items, the first pretest included five items from other published and tested scales and eight new items based on the definition of customer-led organizations (Slater & Narver, 1998). All the items included in the pre-test appear in Table 2–5. All items were structured for a 5-point Likert scale from 1, "Strongly Disagree," to 5, "Strongly Agree."

The pool of 59 MBA students came from a large, private, Midwestern university; they served s pre-testers. I conducted a factor analysis on the 28 items, and a three-factor solution was the best model. Of the original items, 20 loaded on the three factors. The first factor, which included many of the customer-led items, accounted for 24 percent of the variance of the sample. Ten items loaded only on this factor without cross-loading above .4 on other factors. The factor has a Cronbach's alpha of .89, well above the level (0.7) suggested for exploratory research (Nunnally & Bernstein, 1994). The second factor contained six items, all from Narver and Slater's MOPRO scale (Proactive market orientation). The alpha was 0.82, and the factor accounted for 17 percent of the variance in the sample. A third factor had three items focused on a customer-led orientation; this factor accounted for 10 percent of the variance and had an alpha of 0.76. One item cross-

loaded on both the customer-led factor and the MOPRO factor.

After the first round of pre-testing, 20 items from the original 28 remained. In a second round, 39 different MBA students from the same university pre-tested the remaining 20 items by rating them in a questionnaire (See Table 2–5).

The second pre-test included the complete MARKOR scale. The results of the second pre-test show that the items comprise two factors. The market orientation factor accounts for 28 percent of the variance in the sample and has a Cronbach's alpha of 0.84. The customer-led factor accounts for 25 percent of the variance and has an alpha of 0.81. All 20 items appeared in the final questionnaire.

2.4.3 Additional measures

The questionnaire included measures for performance, mediators, moderators and control variables in addition to the customer-led and market-oriented scales described above. Below, I discuss additional measures that I developed or that do not appear in previously published work. Scales which other researchers developed appear in Appendix B, but they are not discussed below.

Value (Appendix B.1a and B.1b)

Building on a previous study of market orientation, I included five value items that measure relational advantage and included three more measures of value that rate product advantage (Day & Van den Bulte, 2003). The eight items that I used to measure value include economic, technical, service, and social aspects of offerings (Anderson,

Thomson, & Wynstra, 2000). I structured all eight of the survey questions such that respondents had to compare how the company's customers view its offerings versus that of its direct competitors. One of the most common questions used to measure the economic facet of value is asking how the offering's value for the money compares to that of direct competitors. Company responsiveness to individual needs was addressed by questions about service and technical aspects of value, such as

- the best total solution,
- the ease of collaboration, and
- the ability to deal with problems and queries.

Quality is another commonly considered aspect of value in consumer research. In the model presented here, quality is explicitly included in a question about how the respondent firm's quality compared to that of its direct competitors. In distilling the questions about value to be included in the model, I used confirmatory factor analysis (Gerbing & Anderson, 1992). The reliability of the eight items is 0.81.

Market environment (Appendix B.3a and B.3b)

I developed one scale based on D'Aveni's work on hyper competition (D'Aveni, 1994, 1995). The high intensity competition scale appears in Appendix B.3b; it compares to a previously developed competitive intensity scale (Song & Parry, 1997a, b) which Appendix B.3a shows. These scales include questions about price competition and degree of aggressiveness when firms position themselves against each other in the respondent's competitive market. In the first pre-test with 98 MBA students, the Cronbach's α for the Song and Parry competitive intensity scale was 0.36 while the α for the scale I developed

was 0.78. However, I chose to include both scales in the final survey despite the low α of the Song and Parry measure because the marketing literature included it. The α for the Song and Parry competitive intensity scale with the responses from the final sample only improved to 0.41 while the α for the high intensity competition scale I developed was 0.79. The AVE (Average variance extracted) is 0.55 and the composite reliability is 0.85, showing good convergent validity for the scale I developed (Fornell & Bookstein, 1981). The respondents rated the items from one to five (strongly disagree to strongly agree). The highest company scored a 25, while the minimum a company scored was 6. A high score would demonstrate high competitive intensity while a low score would be a relatively stable market environment. The mean score was 16.3 and the median score was 17.

Self-reported Performance (Appendix B.4 and Appendix B.5)

Respondents rated their performance three ways, as companies are not interested only in profits, but also sales growth and customer retention. Also, as previous studies have shown differing relationships between orientation and performance depending on the performance measure, I wanted to have more than one measure to test the model. Following previous research (Slater & Narver, 1994), I utilized self-reported measures of how a firm performed in comparison to its direct competitors over the last two years (short-term) and four years (long-term). Participants reported performance on a five-point Likert scale with endpoints of “Much Better” and “Much Worse” than competitors. The three short-term measures had a coefficient alpha of 0.81, and the long-term measures

had a coefficient alpha of 0.84. Having respondents compare themselves to competitors is one way to control for differing rates of average performance by industry and served markets. Additionally, Pearce (1987) and Dess (1984) found strong correlations between subjective and objective measures of performance, and researchers have used them extensively in previously published studies of market oriented and customer-led firms (Gatignon & Xuereb, 1997; Pelham & Wilson, 1996).

Objective performance measures (Appendix B.6)

By using single SBU firms that are publicly traded, I was able to supplement the subjective data with objective data from the 10K filings of the respondent firms. From Compustat, I obtained the data needed to calculate ROA and sales growth for all publicly traded, single SBU firms from 2005 through 2008. I calculated the measures using standard accounting definitions. Sales Growth is the difference between this year's sales and last year's sales divided by last year's sales. ROA is net income plus after tax interest expense all divided by the total assets at the beginning of the year. In the survey I conducted in 2005, I asked respondents to rate their companies on market orientation and environmental characteristics of their markets in the present. Therefore, 2005 Compustat data should show the impact of current market orientation and value creation. The 5,513 firms had at least some data for ROA and sales growth between 2005 and 2008. Not all the respondent companies had data for this timeframe. This may be a result of firms expanding and becoming multiple SBU firms, being acquired by another firm, going bankrupt, or delisting from the stock exchange, and consequently no longer needing to file a 10K report. In one case, the company went from being a publicly traded company

to a privately held company, and therefore no longer filed a 10K report. 49 of the respondent companies had data for sales growth and 45 for ROA in 2005. After 2005, even fewer companies had data. For this reason, I consider only the 2005 data.

A priori, there is no reason to believe that sales growth and ROA should be similar for different types of firms in the same year. For example, the Mississippi River floods of 2011 shut down and damaged many casinos in the path of the floods. Therefore, one can expect lower casino ROA and sales growth for casinos. At the same time, the destruction of the floods will cause people to need to rebuild homes and businesses, increasing sales for construction-related industries. To mitigate the differences among types of industries, I sorted firms by the first three digits of their SIC codes. If there were no respondent companies in a three digit SIC code group, I discarded that group. The 2,422 firms that remained were divided into 34 groups. Groups ranged in size from 3 to 569 companies. For the self-reported measures, the respondents had rated their companies as compared to their direct competitors. Ideally, their direct competitors would come from their three-digit SIC code group.

To develop the ROA and sales growth measures used in the models, I first calculated averages and standard deviations for sales growth and ROA for each SIC code group. I removed outliers if their ROAs or sales growth figures were five or more standard deviations from the mean of the group. Again, as average ROA and sales growth will vary across the SIC code groups, I rank the companies within their group. This compares the performance of the company to the competitors within their group. Finally, I linked the 10K performance measures for the respondent companies to the self-reported survey data.

Control variables

Previous research has not been consistent in including control variables, nor has any one variable, or set of variables, emerged as necessary in modeling market orientation and firm performance. Previous researchers have included variables such as firm size, buyer power, market position, and ease of market entry (Atuahene-Gima, 2005; Chou, 2009; Hult et al., 2005). The final survey included items for self-reported firm size, cost disadvantage as compared to their major competitors, barriers to entry in their market or industry, and buyer power. The single item measures appear in Appendix B.7

2.5. RESULTS OF MODEL TESTING

2.5.1 Introduction

This section presents the results of testing the hypotheses presented above. First I describe the differences between being customer led and market oriented; then, I test the hypotheses. A comparison of the measures for customer-led and market-oriented approaches shows that they are positively correlated with each other and the larger, market orientation scale developed by Kohli and Jaworski (1993). However, they have different impacts on firm performance. I test for mediation by value and by innovation. Finally I also test the role of competitive intensity in moderating the impact of being customer led or market oriented. As in Essay #1, value acts as a mediator; however, innovation is not a statistically significant mediator in the model I test. My data do not show that competitive intensity is a moderator in this model.

2.5.2 Methodology

In a review of studies of market orientation between 2005 and 2009, I found 13 papers published in peer reviewed journals. Of these 13, eight used regression (OLS) and three used structural equation modeling (SEM). The other two were conceptual or descriptive. In the past, most researchers have chosen to apply SEM with a maximum likelihood (ML) estimation with a program such as LISREL or AMOS. However, given the nature of my data and limited number of observations, I chose to use partial least squares estimation (PLS), utilizing SmartPLS (Ringle et al., 2005). I provide a short overview of PLS and the reasons for my choice.

Both OLS- and ML-based SEM require the researcher to assume that her data are measured without error. As measurement error could be caused by the order of the questions in the questionnaire, I cannot assume that there is no measurement error. PLS does not require the assumption of variables that are measured without error. Therefore, PLS is a better choice than OLS or SEM given my data.

My research includes both moderators and mediators, and PLS is preferable to regression when moderators and/or mediators are included. Mediation is usually tested with OLS by applying the Baron & Kenny (1986) 3-step method, and recently additional steps have been added to test for the specific kind of mediation (Zhao et al., 2010). By applying path modeling, I can include the mediators and moderators in the same model and test for their significance in one step (Haenlein & Kaplan, 2004).

Researchers in the business disciplines usually assume a reflective model. Coltman et al. (2008) found that 95 percent of papers in the Journal of International Business Studies and the Journal of Marketing in 2006 used reflective constructs without

mentioning the possibility that a construct might be better measured as formative. This reliance on reflective construction may be a result of the modeling limitations of OLS and ML methods. PLS, however, allows both formative and reflective constructs to be estimated in the same model.

One drawback to PLS is the lack of goodness-of-fit measures. LISREL and OLS have more. Therefore, while PLS is adequate for theory building, it is less desirable than LISREL or AMOS for model comparison (Henseler et al., 2009).

One other advantage of PLS over ML methods is that fewer observations are required to obtain valid results (Haenlein & Kaplan, 2004). I have chosen to apply PLS for my model, because I have a low number of observations, multiple dependent variables, moderators, mediators, and I cannot assume away measurement error.

While most researchers assume that market orientation is a reflective index, recent research has suggested that when market orientation is broken down, the components (in this case market oriented and customer led) should be modeled as formative indicators. One potential problem with modeling the variables formatively is that there are no rules of thumb for creating an index from the formative indicators (Coltman et al., 2008). This could be an issue with my data; I had planned to create indices to reduce the number of variables in my model. However, I decided to examine whether the items I had pre-tested for the market-oriented and customer-led variables could be formative indicators. Using SmartPLS, I created two formative variables with the items that I had previously identified as either customer led or market oriented. Unfortunately, few of the paths were statistically significant even at the $\alpha = 0.10$ level, and those that were almost significant cross-loaded on the other variables. After cleaning the data by removing the non-

significant items and those that cross-loaded, I was left with one indicator for each variable. Coltman et al. (2008) suggest that one issue with modeling indices in a formative manner when they have previously been considered reflective is that the items themselves may not be appropriate for a formative index. Given that only two items remained when I attempted to model the variables in a formative manner, I chose to model the indices in a reflective form.

Starting with the items that had emerged from the pre-tests as loading on the two variables, I used factor analysis in SmartPLS to remove the items that cross-loaded. One item loaded heavily on a performance measure. Once I removed the cross-loading items and those without statistically significant paths, three items remained that loaded on the customer-led latent variable and four that loaded on the market-oriented latent variable. Table 2–5 contains the questions that remained. The final variables have convergent validity as both have AVEs of 0.5 or above (Fornell & Bookstein, 1981). The AVE of a customer-led approach is 0.53 and that of a market-oriented approach is 0.5. The Cronbach's alphas are 0.51 and 0.71, and they have composite reliabilities of 0.78 and 0.82 respectively. While the Cronbach's alpha of customer led is low, this is likely due to the scale only having three items, and Cronbach's alpha is prone to estimation errors. The composite reliabilities are both greater than 0.6 which is adequate for exploratory scales (Chin, 1998). Using the loadings on each of the items from PLS, I created an index for customer led and one for market oriented.

Given the semantic issues surrounding customer and market orientation, and the various scales used to measure the orientations, I checked the correlations among the scores and the scale that Kohli and Jaworski (1993) developed. The survey respondents

had also completed the Kohli and Jaworski scale items. 16 of the 20 items included in the scale were found to load heavily on one factor. The *p*-value of the one factor Kohli and Jaworski scale is 0.08—meaning that I can accept that one factor is sufficient and an additional factor is not necessary to explain the variance in the sample. The Cronbach's alpha of the 16-item scale was 0.90 which is well above the accepted minimum for alphas (Nunnally and Bernstein 1994). The three scales are all positively correlated, which is to be expected as common practice has been to freely interchange the terms and items used to make up the scales for years. The market-oriented and Kohli-Jaworski scores are the most highly correlated (0.70), while the customer-led and Kohli-Jaworski scores have a correlation coefficient of only 0.44. Customer led and market oriented have a correlation coefficient of 0.48. The data support the contention that market oriented is not identical to customer led and the two should not be used interchangeably.

I continued to use PLS for factor analysis of the market environment (hyper competition) scale. The AVE for this index is 0.55, the Cronbach's alpha is 0.79 and the composite reliability is 0.85. These values show convergent validity for the index. Using the loadings on each item, I created an index for market environment. The index aids in decreasing the number of variables in each model estimation.

Innovation is also a multi-item scale. Again, I used PLS to analyze the scale. While the Cronbach's alpha of the scale was 0.63, the AVE was only 0.41 and the reliability 0.63. With an AVE below 0.50, the convergent validity is weak. Only three of the four items had significant loadings. When I removed the item with the non-significant loading, the AVE of the three item scale increased to 0.6 and the reliability increased to 0.81. The Cronbach's alpha only increased to 0.67, but given the high reliability, I chose

to keep the scale in the model. The results for the three item scale show good convergent validity. With the loadings from the factor analysis, I created an index for innovation from the three item scale. Appendix B.2 shows the items that remained in the final scale.

To estimate performance, I departed from previously published work which mostly focuses on a single measure and only one time period. For that reason, I tested the self-reported performance measures profit, revenue, and customer retention. Additionally, I assessed long-term (past four years) and short-term (past two years) results for each of the measures. A priori, there is no reason to believe that all three indicators measure the same type of performance. Customer-led or market-oriented practices may require differing performance measures (Voss & Voss, 2000). Tables 2–6 (Correlation between Performance Measures at Two Years) and 2–7 (Correlation between Performance Measures at Four Years) show that the measures are positively correlated, with correlations between two factors ranging from 0.53 to 0.66. In order to test short-term and long-term performance separately, I combined the three short-term measures into one composite short-term performance variable and the three long-term measures into one composite long-term performance variable. In a meta-analysis, Ellis (2006) found market orientation to have higher correlations with subjective performance measures than objective performance measures. Therefore, I included a third composite variable with the 10K measures. The three composite performance variables, short-term performance, long-term performance, and 10K performance, are modeled formatively, so I did not create indices for the items.

While multicollinearity causes problems in OLS estimation, this is not a problem in PLS. Even so, I checked the correlations of the latent variables. The correlations

appear in Table 2–8 below. The short-term and long-term performance composite variables have the highest correlations at 0.767. V.I.F. tests of the variables do not show multicollinearity to be a problem. Innovation is negatively correlated with the customer-led variable, but positively correlated with market-oriented. The correlation between customer led and market oriented is 0.48. Even though the two latent variables each have good convergent validity, and the correlation between them is below 0.75, I further tested that they were separate constructs by putting all the items into one variable. This compound variable had poor convergent validity with an AVE of 0.35. This adds evidence that the two variables should be modeled separately.

2.5.3 PLS Model

One advantage of using PLS over OLS is that I can estimate all the relationships hypothesized above in one model. This allows me to test all the relationships at the same time and not in a piecemeal fashion. I did, however, model the data without any mediators or the moderator as shown in Figure 2–2 to compare it with the final model shown in Figure 2–3. In this manner I can comment on the increases in R^2 with the inclusion of the mediating variables. Figures 2–2 and 2–3 show the statistically significant paths, their coefficients, and their t-statistics. The R^2*s* of the dependent variables are also included in the figures. The model contains the three formative composite performance variables (short-term performance, long-term performance and 10K performance). The model includes both the self-reported and the objective data from the 10K reports. While value mediates the relationship between customer-led and short-

term performance, it is not a mediator in any of the other customer-led- or market-oriented-to-performance paths.

In the case of innovation, both customer-led and market-oriented criteria have statistically significant paths to innovation. However, the innovation variable is not a statistically significant predictor of any of the composite performance measures.

While competitive intensity was a significant moderator in some previously published studies, in this study, my data do not support hypothesis H3. The final model for which I report the results does not include competitive intensity because none of the relationships was statistically significant.

By using SmartPLS, I can report the total effect of market oriented or customer led on the performance variables, and not just the direct paths between the variables. The R^2 of short-term performance increases from 0.457 without the mediators to 0.539 when they are included. In the case of long-term performance, the R^2 increases from 0.362 to 0.454 when the mediators are included in the model. Including the mediators does not increase the R^2 of the 10K measure which is 0.161 when there are no mediators and 0.154 when they are included. The R^2*s* for short- and long-term performance are higher than most found in previously published studies (Deshpandé & Farley, 1998b), and they are higher than in Coltman et al.'s (2008) research, which showed an R^2 of 0.19 for their reactive performance measure and 0.24 for their proactive performance measure.

2.5.4 Results of testing of performance hypotheses (H1 and H2)

The first hypotheses are about the short- and long-term impact of being a customer-led and/or market-oriented firm on performance. H1a posited that being customer led should have a significant and positive impact on short-term performance. Indeed, the total effect of customer led on short-term performance is significant at p =0.05, supporting H1a. H1b posited that being customer led would not have a statistically significant impact on long-term performance. The data also support H1b, as the coefficient of the total effect of customer led on the composite long-term performance variable is not statistically significant, and neither is customer led a statistically significant predictor of the composite 10K performance variable.

In contrast to the impact of being a customer-led firm, H2a posits that being a market-oriented firm will not have a significant impact on short-term performance. The data partially support H2a, as the coefficient of the total effect of market-oriented on short-term performance is significant at p=0.10 but not at p=0.05. For both the long-term performance variable and the 10K composite performance variable, the coefficient of the total effect of market-oriented for each is statistically significant at p =0.05 This result supports H2b that being market oriented will have a positive long-term impact on performance.

2.5.5 Results of testing of moderation: Market environment (H3)

In H3, I posit that competitive intensity will moderate the performance impacts of being market oriented and/or customer led. SmartPLS permits the inclusion of

moderating variables in the model. When I included the competitive intensity index described above in the model, none of the path coefficients was statistically significant. The data do not support H3. Given the mixed results of testing competitive intensity as a moderator in previous work (as shown in Table 2-1), this result is not completely unexpected. In fact, in a meta-analysis, researchers have noted that there was not enough consistent empirical evidence to support the hypothesis that competitive intensity is a moderator in the market-orientation-to-performance relationship (Kirca, Jayachandran, & Bearden, 2005). One reason for the non-significance may be that my model does not correctly specify the relationship; the true relationship could be non-monotonic as reported by Appiah-Adu et al (1998). In research of the hotel industry, competitive intensity was a control variable. However, the authors found no significant impact of competitive intensity on performance (Zhou et al., 2007). In more recent research, competitive intensity was an antecedent to perceived desired level of market orientation, but it was not a precursor to firm performance (Song & Parry, 2009).

2.5.6 Results of testing for mediation

Innovation (H4 and H5)

Using the innovation index from the survey responses, I tested H4 which posits that innovation will positively mediate the market-oriented-to-performance path in both the short- and long-term. However, while the market-oriented variable has a statistically significant impact on innovation at p=0.10, innovation is not a statistically significant predictor of the long-term performance variable nor of the 10K performance variables.

Ideally, in the long term, innovation would pay off with higher profits, but the data do not support H4 that innovation has a positive impact on performance over four years.

While previous research tested innovation as a mediator, recent research tested innovation not as a mediator, but as a result of customer/competitor orientation. Innovation was hypothesized to be a precursor of perceived quality and satisfaction. Perceived quality and satisfaction, in turn, lead to increased profits for the firms. Therefore, innovation itself did not lead to increased profits (Zhou, Brown, & Dev, 2009). That is, innovation does not lead to firm performance directly, but influences other variables that impact firm performance.

The results may also be caused by the nature of innovation itself. While incremental innovations are rather safe investments, truly innovative products fail more often than an incremental innovation (Calantone et al., 2003). Therefore, a company may be innovative, but it may not always have success with its innovations. While having a blockbuster breakthrough innovation, such as the Sony Walkman, will increase a firm's profits, most companies will not have such ground-breaking innovations very often, if at all. As my research only included self-reported data for four years and 10K data for two, the truly innovative firms may not have had a break through innovation in that time period. Therefore, a firm that focuses on incremental innovations may have better firm performance than a very innovative firm (one that scored highly on the innovativeness scale in my survey).

While the data support H5, which states that innovation is not a mediator of the customer-led-to-performance relationship in the short term, the negative sign on the coefficient from customer led to innovation was unexpected. Past research has found

innovation to be a positive mediator (see Table 2–2. “Mediators”) of market orientation, but my data show that being customer led has a negative impact on innovation. The path from innovation to short-term performance is also negative, but not statistically significant. Also, because of the negative path from customer led to innovation, the total effect of a customer-led approach on 10K performance is negative when innovation is included in the model, but it is not statistically significant. These negative paths could lead one to conclude that being too close to the customer is, indeed, bad for performance as Christensen and Bower (1996) stated. The negative path could be symptomatic of highly customer-led companies focusing more on incremental innovations or improvements in products and not looking for ground breaking innovations.

Value (H6)

In order to test the mediational impact of value, I constructed a value creation index as described above. I include value as an index in the PLS model to reduce the number of variables in the final model. As in Essay #1, H6 posits that value will mediate the relationship between both customer led and market oriented and the performance variables. Both market oriented and customer led are statistically significant predictors of the value variable. The R^2 of the value variable is 0.36. However, value is a statistically significant predictor for only short- and long-term performance, not for the 10K performance variable. With value in the model, the total effect of customer-led on short-term performance is statistically significant, while the direct effect is not. Likewise, the total effect of market-oriented on long-term performance is statistically significant, while the direct effect is not. This shows that value mediates the customer-led-to-short-term

performance relationship and also mediates the market-oriented-to-long-term-performance relationship. In the case of customer-led-to-long-term-performance relationship, value does not fully mediate the relationship even though the coefficient and the statistical significance of the direct path from customer-led-to-long-term performance decreases when value is added to the model. The direct path when value is not included in the model is not significant. For the market-oriented-to-short-term-performance relationship, the total effect of market-oriented on short-term performance is significant (p = 0.10) and the direct effect is not statistically significant. However, the direct effect without mediators is not significant either. Value does not mediate the path from customer-led to 10K performance as the effect (direct or total) of customer led on 10K performance is not statistically significant with or without value. In the case of market-oriented-to-10K, the direct path and the total effect are both statistically significant when value is in the equation; however, the path from value to 10K is not statistically significant. Therefore, there is partial support for H6. Value mediates the customer-led-to-short-term path and the market-oriented-to-long-term path, but not the other paths. Value is not a statistically significant predictor of 10K performance.

Control Variables

I included four control variables in the model. Cost disadvantage is not a statistically significant predictor of any of the performance variables, and I removed it from the final model. The three remaining control variables, were statistically significant (at p = 0.05 unless otherwise noted) predictors for at least one of the performance variables.

Firm size is a positive and statistically significant predictor of short- and long-term performance, but not 10K performance. This relationship demonstrates that the larger a firm, the more positive the impact on its performance measures. Buyer power is a negative and statistically significant predictor of long-term performance, meaning that in a market where buyers have the power to push for price breaks and special deals, the long-term performance of the firm is reduced. Buyer power does not have a statistically significant relationship with the other two performance variables.

Barriers to entry have a negative impact on short-term performance ($p = 0.10$). This shows that in markets where it is difficult for new competitors to enter, short-term performance is negatively impacted. I expected the opposite result: if the market is difficult to enter, firms should be able to earn higher profits than if competitors can enter easily. Zhou et al. (2007) found that when respondent firms erected barriers to entry, it had a significant positive impact on firm performance. In their research, they specified that a barrier to entry was the respondent firm building a hotel in a prime location, leaving the competitors to build their hotels in less desirable locations. In my study, the respondents rated their market on how difficult it is for a new competitor to enter. As I included firms from many different industries, this question may have been too general and the respondents may each have construed different types of barriers. For example, in some situations, a market may be difficult to enter because there is some type of protection such as governmental controls, regulations, licensing, permit requirements, or high start-up costs, and in other situations, a market may be difficult to enter because there is a high level of competition. If the difficulty of entering a market is primarily due to its highly competitive nature, then we should expect lower ROA and sales growth.

2.6. DISCUSSION

For scholars, this study shows that the difference between being customer led and market oriented is more than just semantic. Building on the findings of Essay #1, this study shows that value mediates both the market-oriented- and customer-led–to-performance path. The data do not support the hypothesis (H4) that innovation mediates the market-oriented-to-performance path. As hypothesized (H5), innovation does not mediate the customer-led-to-performance path. The data also do not support the hypothesis (H3) about the need to focus on being either customer-led or market-oriented depending on competitive intensity.

2.6.1 Theoretical Implications

Previous published studies have referred to market orientation and customer-led orientation almost interchangeably. Through scale development, I show that market-oriented and customer-led approaches are not measuring the same aspects of firm structure. The results of this study also highlight the different impact that being either market oriented or customer led has on performance. As previous studies have shown differing effects of market and customer orientation on performance, one interpretation of the results of this study could be that some of the differences may be due to the actual type of orientation being measured. Therefore, it is not sufficient to refer to market-oriented and customer-led strategies interchangeably. One stark example of this is the customer-led versus market-oriented impact on short-term performance. A customer led strategy has a positive and statistically significant impact on short-term performance,

while a market-oriented strategy has no statistically significant impact (at p =0.05) on short-term performance.

My results also partially support the hypothesis (H6) that value mediates the market-oriented- and customer-led-to-performance path. While value had been included in previous market-orientation scales, researchers had not tested it as a mediator of the market-oriented/performance relationship. The data here support value mediation. However, the full extent of mediation depends both on the performance measures and the orientation measures the study investigates.

This leads to another result of this study: it shows that the type of performance measure matters. The impacts of being customer led or market oriented, and the role of value as a mediator, depend on the performance measure used. For example, being customer led is not a statistically significant predictor of long-term performance or 10K performance, but it *is* of short-term performance. Broad generalizations about being customer led or market oriented cannot be made given the data in this study. Instead, researchers should make it clear that their results depend on the performance measure that they are including in their models.

2.6.2 Managerial Implications

The results from this research suggest that being customer led will have a negative impact on innovation, while being market oriented does not have a negative impact on innovation. Innovation does not have a statistically significant impact on any of the performance variables in this study. However, given the low R^2 of the innovation

variable (0.06), I can conclude that there are precursors to innovation other than being customer led or market oriented.

By measuring whether the company is focused on the market (market-oriented) or focused on the customer (customer-led), or both, managers can determine areas for improvement of the firm's performance. The data support a focus on customer-led strategies to enhance short-term performance or a focus on market-oriented strategies for long-term performance and 10K performance. If the firm wants to focus on both short-term and long-term performance, then being both market oriented and customer led are important. In most cases, being a market-oriented and/or customer-led firm impacts performance through value creation. It is no longer sufficient to concentrate on being simply a market-oriented firm or a customer-led firm; firms must bring value creation, derived from market-oriented or customer-led strategies to the forefront.

Results change by the type of performance (self-reported short-term, self-reported long-term, or 10K). Therefore, conclusions about the effect of market or customer focus on performance must refer to the measure used; researchers and managers should not accept general, sweeping conclusions about the impact of either market or customer orientation on performance.

2.6.3 Limitations and Implications for Future Research

While being market oriented or customer led *contributes to* value, I cannot conclude from this study that they *cause* value. In order to make such a conclusion, more experimental data would be needed. The limitation of survey research is that the data show only correlation and not a causal relationship. Even so, pointing out the correlation

between being market oriented and/or customer led and value gives us a deeper understanding of value. Future research should focus on improving the understanding of how firms create offerings that customers value.

Unlike past published studies involving the innovation scale that I used for this research, the data here show a negative relationship between innovation and short-term performance. This could be due to the time period studied or the performance measures used. Further research into innovations role and its short- and long-term impact on different performance measures is needed.

The low number of respondents was a hindrance to this study. While PLS can estimate models with low numbers of observations, in order to include many variables individually instead of in indices, I needed a larger number of observations.

As with past studies of orientation, the self-reported measures suffer from the potential for mono-method bias, which may influence the conclusions derived from the survey data. I tried to correct for this by using publicly traded, single SBU firms as the focus of the research so that I could collect objective performance measures. Unfortunately, the contacts for these companies were overwhelmingly presidents or CEO's of their companies, which can impact the response by decreasing the number of respondents. While I have created formative indices of performance, the loadings of the performance items on the variables varies. Measuring and reporting the performance measures separately would allow a more complete picture of the impact of being customer led and market oriented on performance. More responses would allow a more complete picture of the influence of customer-led and market-oriented strategies on performance.

APPENDIX A: Orientation Scales

1. **Customer-Led (MORTN) (Narver et al., 2000)**

Scale: 1 = Not at All → 6 = To a Very Substantial Extent

(amount to which respondents agreed with the following items)

1. We constantly monitor our level of commitment and orientation to serving customer needs.
2. We freely communicate information about our successful and unsuccessful customer experiences across all business functions.
3. Our strategy for competitive advantage is based on our understanding of customers' needs.
4. We measure customer satisfaction systematically and frequently.
5. We are more customer-focused than our competitors.
6. I believe this business exists primarily to serve customers.
7. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.

2. **Market Orientation (MOPRO)** (Narver et al., 2000)

Scale: 1 = Not at All → 6 = To a Very Substantial Extent

(amount to which respondents agreed with the following items)

1. We help our customers anticipate developments in their markets.
2. We continuously try to discover additional needs of our customers of which they are unaware.
3. We incorporate solutions to unarticulated customer needs in our new products and services.
4. We brainstorm on how customers use our products and services.
5. We innovate even at the risk of making our own products obsolete.
6. We search for opportunities in areas where customers have a difficult time expressing their needs.
7. We work closely with lead users who try to recognize customer needs months or even years before the majority of the market may recognize them.
8. We extrapolate key trends to gain insight into what users in a current market will need in the future.

3. Comparison of market orientation and customer orientation scales

3a. MARKOR (market orientation) (Jaworski & Kohli, 1993; Kohli et al., 1993)

Scale: 1 = Strongly Disagree → 5 = Strongly Agree

In responding to the following questions, please focus on your strategic business unit rather than the corporation as a whole. If a question is not applicable please leave a blank.

In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.

1. In this business unit, we do a lot of in-house market research.
2. We are slow to detect changes in our customers product preferences.®
3. We poll end users at least once a year to assess the quality of our products and services.
4. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, regulation).®
5. We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers.
6. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
7. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments
8. When something important happens to a major customer or market, the whole business unit knows about it in a short period.
9. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
10. When one department finds out something important about competitors, it is slow to alert other departments.®
11. It takes us forever to decide how to respond to our competitors' product or service needs.®
12. For one reason or another we tend to ignore changes in our customers' product or service needs.®
13. We periodically review our product development efforts to ensure that they are in line with what customers want.
14. Several departments get together periodically to plan a response to changes taking place in our business environment
15. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately
16. The activities of the different departments in this business unit are well coordinated.
17. Customer complaints fall on deaf ears in this business unit.®
18. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.®
19. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.

3b. Market orientation (Narver & Slater, 1990)

Scale: 1 = Not at all → 7 = To an extreme extent

In answering, please use the response scale and place the most appropriate number to the left of each statement. Please respond to all statements:

1. Our salespeople regularly share information within our business concerning competitors' strategies.
2. Our business objectives are driven primarily by customer satisfaction.
3. We rapidly respond to competitive actions that threaten us.
4. We constantly monitor our level of commitment and orientation to serving customers' needs.
5. Our top managers from every function regularly visit our current and prospective customers.
6. We freely communicate information about our successful and unsuccessful customer experiences across all business functions.
7. Our strategy for competitive advantage is based on our understanding of customers' needs.
8. All of our business functions (e.g. marketing/sales, manufacturing, R and D, finance/accounting, etc.) are integrated in serving the needs of our target markets.
9. Our business strategies are driven by our beliefs about how we can create greater value for our customers.
10. We measure customer satisfaction systematically and frequently.
11. We give close attention to after-sales service.
12. Top management regularly discusses competitors' strengths and strategies.
13. All our managers understand how everyone in our business can contribute to creating customer value.
14. We target customers where we have an opportunity for competitive advantage.
15. We share resources with other business units.

3c. Customer orientation (Deshpandé et al., 1993)

Scale: 1 = Strongly Disagree → 5 = Strongly Agree

The statements below describe norms that operate your business. Please indicate your extent of agreement about how well the statements describe the actual norms in your business:

1. We have routine or regular measures of customer service.
2. Our product and service development is based on good market and customer information
3. We know our competitors well.
4. We have a good sense of how our customers value our products and services
5. We are more customer focused than our competitors.
6. We compete primarily based on product or service differentiation.
7. The customer's interest should always come first, ahead of the owners.
8. Our product/services are the best in the business.
9. I believe this business exists primarily to serve customers.

3d. Synthesized market orientation Scale (Deshpandé & Farley, 1998b)

Scale: 1 = Strongly Disagree → 5 = Strongly Agree

The statements below describe norms that operate your business. Please indicate your extent of agreement about how well the statements describe the actual norms in your business:

1. Our business objectives are driven primarily by customer satisfaction.
2. We constantly monitor our level of commitment and orientation to serving customer needs.
3. We freely communicate information about our successful and unsuccessful customer experiences across all business functions.
4. Our strategy for competitive advantage is based on our understanding of customers' needs.
5. We measure customer satisfaction systematically and frequently.
6. We have routine or regular measures of customer service.
7. We are more customer focused than our competitors.
8. I believe this business exists primarily to serve customers.
9. We poll end users at least once a year to assess quality of our products and services.
10. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.

APPENDIX B: Measures

1. Value (Day & Van den Bulte, 2003)

1a. Relational Advantage

Scale: Five point scale, anchors below

How does your target customer segment perceive your business compared to your direct competitors?

1. Least responsive / Most Responsive to their individual needs
2. Least understanding of their needs / Most understanding of their needs
3. Most difficult to collaborate with / Easiest to collaborate with
4. Worst customer service / Best customer service
5. Worst at dealing with problems and queries / Best at dealing with problems and queries

1b. Product Advantage

Scale: Five point scale, anchors below

How does your target customer segment perceive your business compared to your direct competitors?

1. Worst product quality / Best product quality
2. Offer the worst total solution / Offer the best total solution
3. Worst customer value for the money / Best customer value for the money

2. Innovativeness (Calantone et al., 2003; Hurley & Hult, 1998)

Scale: 1 = strongly disagree → 7 = strongly agree

In my department, management actively seeks innovative ideas.

1. In my department, people are penalized for new ideas that don't work.*
2. In my department, when an innovation is perceived as too risky, it is resisted.*
3. In my department, there is a strong emphasis on the manufacturing / development / marketing of tried and true products.*

*All items used in final index.

3. Market Environment

3a. Competitive Intensity (Song & Parry, 1997a, b)

Scale: 0 = Strongly Disagree → 10 = Strongly agree

1. There is no price competition in this market ®
2. There are many competitors in this market
3. There is a strong, dominant competitor – with a large market share – in the market
4. Potential customers are very loyal to competitor's products
5. Potential customers are not satisfied with competitor's products ®
6. New product introductions by competitors are frequent in this market

3b. High Intensity Competition (or "Hyper competition")

Scale: from Strongly Disagree to Strongly Agree

In my competitive market:

1. Firms aggressively position against one another by attempting to disadvantage opponents.
2. Firms create new competitive advantages which make obsolete or match opponents' advantages.
3. Firms attempt to stay ahead of their competitors.
4. Firms create new competitive advantages that make the opponents' advantages irrelevant by moving to compete in another arena.
5. Temporary advantage and short periods of profit are achievable until competitors catch up with or outmaneuver the aggressor's last competitive move.

4. Performance Measures: Short-term (subjective)

Scale: 1 = Much Better ⟶ 5 = Much Worse

How does your firm's performance in the past fiscal year compare to the competition's?

1. Revenue Growth
2. Profitability
3. Customer Retention

5. Performance Measures: Long-term (subjective)

Scale: 1 = Much Better ⟶ 5 = Much Worse

How did your firm's performance in the past 4 years compare to the competition's?

1. Revenue Growth
2. Profitability
3. Customer Retention

6. Objective measures

Sales Growth = (This year's sales – Last year's sales)/ Last year's sales

Return on Assets = (Net income + After tax interest expense) / (Total beginning assets)

7. Control Variables

Scale: 1 = Strongly Disagree → 5 = Strongly Agree

1. We are at a cost disadvantage compared to our major competitors.
2. It is difficult for a new competitor to enter this market.
3. Buyers in this market are able to negotiate favorable prices.
4. We are one of the largest firms in our field.

Table 2–1. Moderators
n.s.= Not Significant

MODERATOR	Jaworski and Kohli (1993)	Appiah-Adu (1997)	Bhuian (1997)	Appiah-Adu et al (1998)	Grewal and Tansuhaj (2001)
Competitive intensity	n.s.	+ New product success	+ Organizational performance	Significant non-monotonic sales growth	- Performance after crisis
Market growth		+ Sales growth			
Market turbulence	n.s.	- ROI			
Technological turbulence	n.s.	n.s.	n.s.		
Technological uncertainty					+ Performance after crisis
Market dynamism				Significant ROI	
High Demand uncertainty					+ Performance after crisis

Table 2–1. Moderators (continued)
n.s.= Not Significant

MODERATOR	Slater and Narver (1994)	Greenley (1995)	Subramanian and Gopalakrishna (2001)	Harris (2001)	Ellinger et al. (2007)	Chou (2009)
Competitive hostility	n.s.	n.s.	n.s.	Significant sales growth		
Market turbulence	-	Significant ROI	n.s.	Significant ROI		
Technological turbulence				n.s.		
Technological change		Significant new product success				
Customer power		Significant sales growth				
Supplier power			n.s.			
Innovation						Hypo-thesized
Empowerment					n.s.	
Employee coaching					Significant organizational performance and employee performance	
Training					Significant employee performance	

Table 2–2. Mediators

MEDIATOR	Day and Wensley (1988)	Slater and Narver (1994)	Baker and Sinkula (1996) JMFM	Han et al. (1998)	Siguaw et al. (1998)	Matear et al. (2002)	Hult et al. (2005)	Jiménez-Jiménez et al. (2007)
Customer Value	+ (Hypothesis) Performance							
Lower Relative Costs	+ (Hypothesis) Performance							
Innovation		+ (Hypothesis) Performance	+ Organizational Performance			+ Partial Financial Performance and Market Performance		
Administrative Innovations				+ Business Performance				
Technological Innovations				+ Business Performance				
Trust					+ Satisfaction with Performance			
Co-operative Norms					- Satisfaction with Performance			
Organizational Responsiveness							+ ROI, ROA and ROE	
Organizational Learning								+ Organizational memory, Market Share

Table 2–3. Differences Between Customer-led and Market-oriented
Developed from Slater and Narver, 1998

	Customer-led	**Market-oriented**
Temporal Focus	Short-term	Long-term
Adjustment Style	Responsive (Reactive)	Proactive
Strategic Orientation	Expressed needs	Latent and Expressed needs
Objective	Customer Satisfaction	Customer Value
Customer Focus	Current	Potential and current searching for unserved markets
Market Research Techniques (How they learn about the market/customers) "Learning Processes"	Focus groups Satisfaction surveys Customer surveys Close relationships with important customers (key accounts) Concept testing	Same techniques as customer-led but also: Observe customers' use of products in normal routines Work closely with lead users (current and potential) "Probe and learn" (continuous experimentation) Selective Partnering
Learning type	Adaptive	Generative (Senge, 1990)
Competitor Focus	Not mentioned	Learn about capabilities and plans of competitors
Knowledge		Continuously create value by sharing knowledge throughout the organization
Leadership		Strong

Table 2– 4. The Impact of Market Orientation and Being Customer-led on Long- and Short-Term Performance

PERFORMANCE

	Low Customer-led	High Customer-led (H1)
High Market Orientation (H2)	High long-term Low short-term	High long-term High short-term
Low Market Orientation	Low long-term Low short-term	Low long-term High short-term

Table 2–5. Items and Their Sources Included in Measure Pre-test #1 and #2 and the Final Survey

Scale: 1 = Strongly Disagree ⟶ 5 = Strongly Agree

KEY: #2 items included in Pre-test #2

MORTN and MOPRO (Narver et al., 2000)

DFW (Deshpandé et al., 1993)

NS (Narver & Slater, 1990)

KJK (Kohli et al., 1993)

DF (synthesized from Deshpandé and Farley, 1996, Appendix A, Scale 3d)

B items developed by the author, Katrina Bens

Italicized items included in final customer-led scores

<u>Underlined items</u> included in final market-oriented scores

1. We constantly monitor our level of commitment and orientation to serving customer needs. (MORTN)
2. We freely communicate information about our successful and unsuccessful customer experiences across all business functions. (MORTN) (#2)
3. Our strategy for competitive advantage is based on our understanding of customers' needs. (MORTN)
4. We measure customer satisfaction systematically and frequently. (MORTN)
5. We are more customer-focused than our competitors. (MORTN)
6. *I believe this business exists primarily to serve customers.* (MORTN) (#2)
7. *Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.* (MORTN)
8. We help our customers anticipate developments in their markets. (MOPRO) (#2)
9. <u>We continuously try to discover additional needs of our customers of which they are unaware</u>. (MOPRO) (#2)
10. We incorporate solutions to unarticulated customer needs in our new products and services. (MOPRO) (#2)
11. <u>We brainstorm about how customers use our products and services</u>. (MOPRO) (#2)
12. <u>We innovate even at the risk of making our own products obsolete</u>. (MOPRO) (#2)
13. We search for opportunities in areas where customers have a difficult time expressing their needs. (MOPRO)
14. <u>We work closely with lead users who try to recognize customer needs months or even years before the majority of the market may recognize them. (MOPRO) (#2)</u>
15. <u>We extrapolate key trends to gain insight into what users in a current market will need in the future. (MOPRO) (#2)</u>
16. We know our competitors well. (DFW)

Table 2–5. Items and Their Sources Included in Measure Pre-test #1 and #2 and the Final Survey, continued

Scale: 1 = Strongly Disagree ⟶ 5 = Strongly Agree

KEY: #2 items included in Pre-test #2
MORTN and MOPRO (Narver et al (2000)
DFW (Deshpandé et al., 1993)
NS (Narver & Slater, 1990)
DF (synthesized from Deshpandé and Farley, 1996, Appendix A, Scale 3d)
KJK (Kohli et al., 1993)
B items developed by the author, Katrina Bens
Items in italics included in final customer-led scores
<u>Underlined items</u> included in final market-oriented scores

17. <u>We focus on developing offerings with the best customer value possible</u>. (NS), (#2)
18. *Our business objectives are driven primarily by customer satisfaction.* (NS), (DF), (#2)
19. <u>Top management regularly discusses competitors' strengths and strategies</u>. (NS), (#2)
20. In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future. (KJK)
21. <u>We work closely with potential customers to determine how we could meet their future needs</u>. (B), (#2)
22. *Customer satisfaction is the most important objective of this business unit.* (B), (#2)
23. *We are rewarded for high customer satisfaction ratings.* (B), (#2)
24. *We focus more on the customer than we do on our competitors.* (B) (#2)
25. Our leadership is firmly committed to the long-term focus of this business unit. (B)
26. <u>Our business unit has a strong long-term focus</u>. (B), (#2)
27. We constantly monitor and anticipate our competitors' actions. (B), (#2)
28. <u>We continually look for unserved markets where we could compete in the future</u>. (B)

Table 2–6. Correlation between Performance Measures at Two Years

	Revenue	Profit	Customer Retention
Revenue	1.00		
Profit	0.66	1.00	
Customer Retention	0.53	0.56	1.00

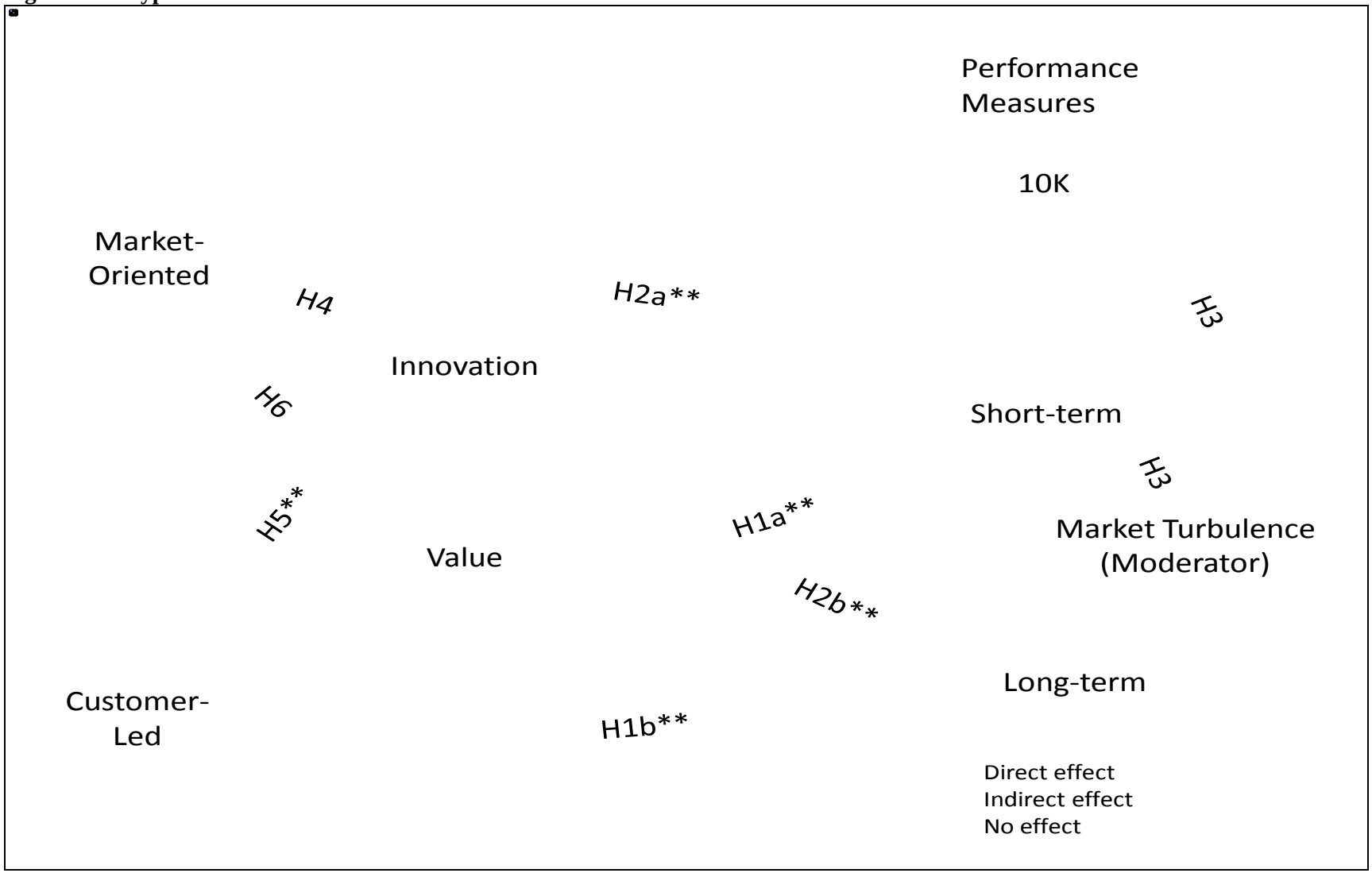
Table 2–7. Correlation between Performance Measures at Four Years

	Revenue	Profit	Customer Retention
Revenue	1.00		
Profit	0.66	1.00	
Customer Retention	0.59	0.65	1

Table 2–8. Latent Variable Correlations

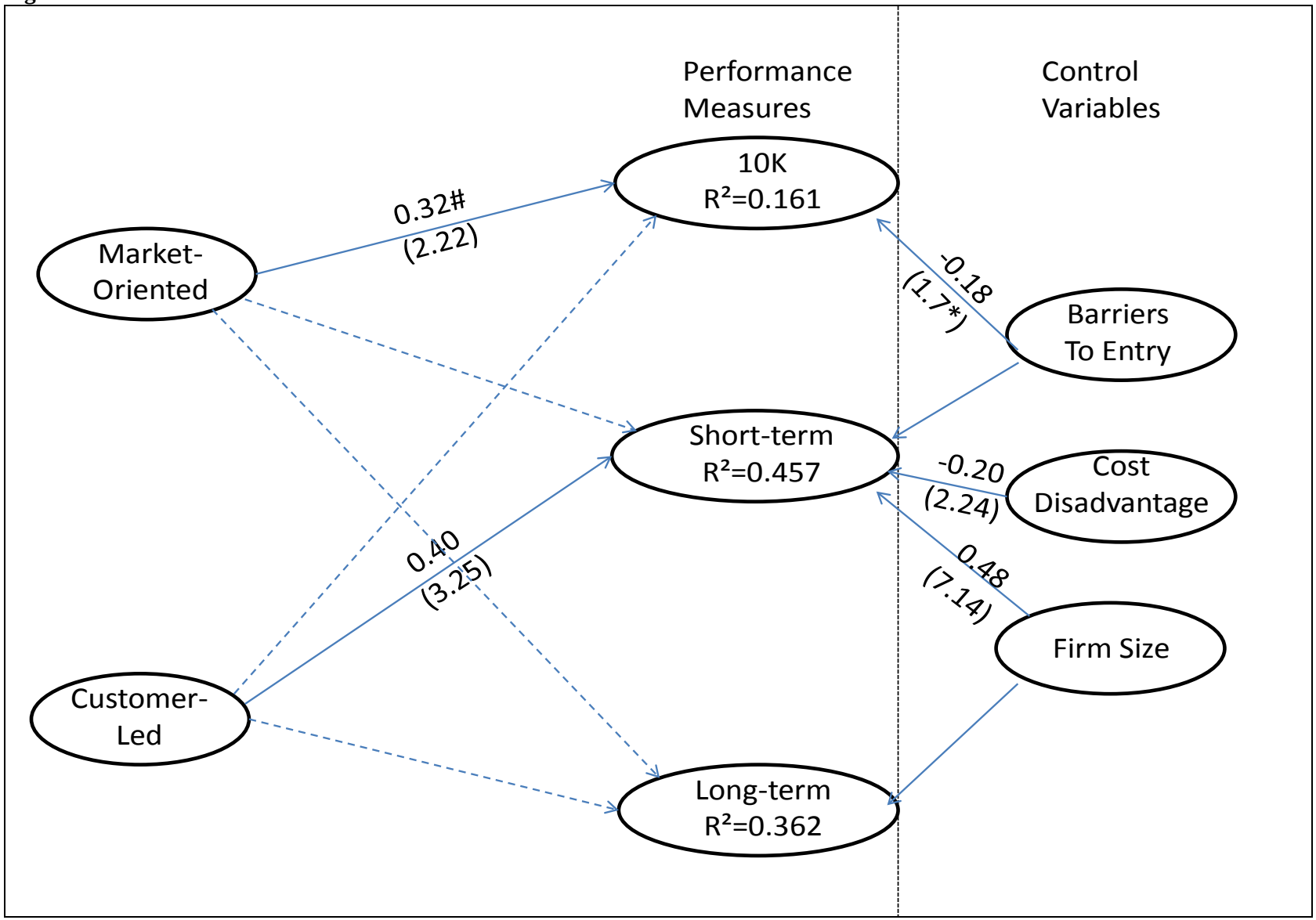
	Short-term Perf.	Long-term Perf.	10K Perf.	Customer Led	Market Oriented	Value
Long-term Performance	0.767					
10K Performance	0.477	0.338				
Customer Led	0.371	0.370	0.170			
Market Oriented	0.452	0.445	0.360	0.483		
Value	0.640	0.506	0.145	0.513	0.515	
Innovation	-0.149	0.011	0.159	-0.196	0.035	-0.123

Figure 2–1. Hypotheses 1 to 6



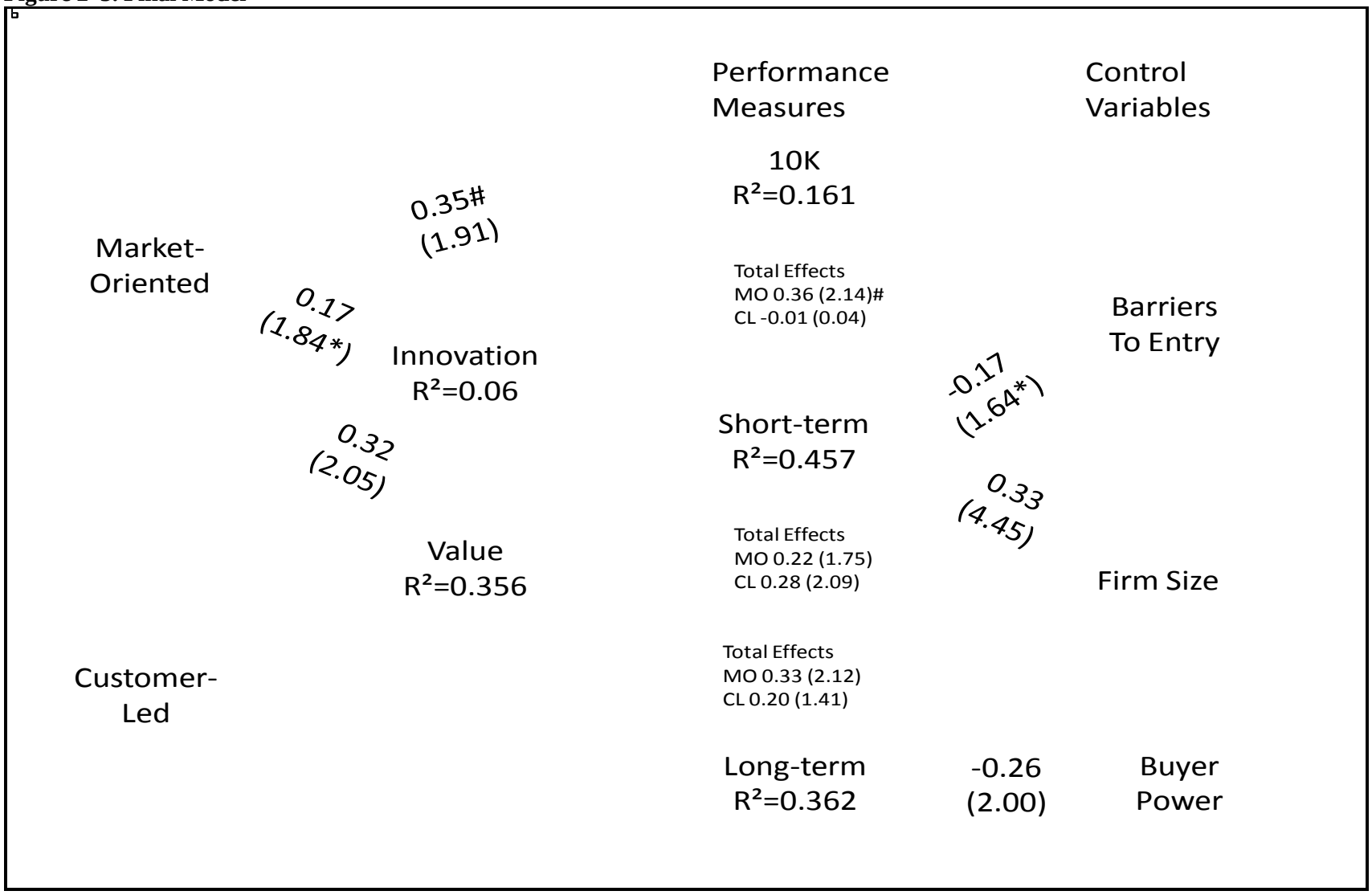
**Hypotheses that are at least partially supported in the final model

Figure 2–2. Model without Mediators or Moderators



#Path coefficient (t-statistic), *statistically significant at p = 0.10. All other paths statistically significant at p = 0.05

Figure 2–3. Final Model



#Path coefficient (t-statistic), *statistically significant at p = 0.10. All other paths statistically significant at p = 0.05

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The Wharton School, University of Pennsylvania — Dec. 2000
M.A., Marketing

Cornell University — May 1993
M.S., Agricultural Economics

Williams College — May 1989
B.A., Double Major in Economics and Spanish

WORK EXPERIENCE

Visiting Senior Lecturer, University of Illinois, Urbana-Champaign,Illinois — 2004-2005
Department of Business Administration
University of Illinois: List of Teachers Rated as Excellent

Trade Marketing Manager, S.C. Johnson & Son de Venezuela, Caracas — 1995-1997
Developed and implemented trade promotions
Participated in sales forecasting
Created marketing tools and presentations for the sales force

Consultant, Luque Carulla y Associados, Bogotá, Colombia — 1993-1995
Worked in project development in Agricultural and Food sectors

Lecturer, Universidad de los Andes, Bogotá, Colombia, School of Business — 1993-1995
Taught undergraduate, MBA, and executive education classes

Supervisor, Automated Packaging Systems, Lombard, Illinois — 1989-1990
Oversaw direct sales force and distributors in eight states
Created budget

SERVICE

Ad hoc reviewer, American Marketing Association — 2004,
Winter Conference — 2007, 2009

Vice President, Smeal Ph.D. Association (SPA), Wharton School — 2002-2004
Participated in founding and developing of SPA
Conducted survey of all Smeal Ph.D. students

Board Member, University of Pennsylvania, Graduate Student Association — 1998-2000
Represented 3,250 students
Wharton Representative to Graduate Student Association

LANGUAGE SKILLS

Fluent in written and spoken Spanish