Extended Stakeholder Orientation: Influence on Innovation Orientation and Firm Performance

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EXTENDED STAKEHOLDER ORIENTATION: INFLUENCE ON INNOVATION ORIENTATION AND FIRM PERFORMANCE

by

Vijay K. Patel

A Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Business Administration in the Coles College of Business Kennesaw State University

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ABSTRACT

EXTENDED STAKEHOLDER ORIENTATION: INFLUENCE ON INNOVATION ORIENTATION AND FIRM PERFORMANCE

by

Vijay K. Patel

In search of drivers of sustainable competitive advantage, this study integrates aspects of stakeholder theory and market orientation. The work results in the concept of extended stakeholder orientation incorporating proactive elements for the first time. Market orientation focuses on customers and competitors – two key stakeholders. Stakeholder theory seeks to broaden the focus to a wider group of stakeholders including employees and shareholders who together with customers and competitors are seen as ‘essential’ stakeholders. Relationships, interactions and ongoing mutual impact on firm activities involving essential stakeholders are fundamental and frequent. While other views of stakeholder theory place more emphasis on stakeholders such as suppliers, community and the environment, the essential stakeholders represent a core from a managerial standpoint, thus serving as justification for the approach chosen for this study. Since market orientation has emerged as a versatile and empirically sound theory positively relevant across cultures, industries and drivers of firm performance such as innovation, the considerable research within market orientation informed this study. In particular, research by Narver, Slater and McLachlan (2004) suggesting that the market
orientation concept could be extended to distinct responsive and proactive components inspired the current proposed extension to stakeholder orientation. Specifically, a key development is to incorporate proactive or anticipatory, forward looking aspects of stakeholder orientation in addition to the traditional responsive elements. Development of the multiple validated scales related to the core stakeholders and innovation orientation provide useful guidelines for managers and researchers alike. Extended stakeholder orientation and innovation orientation as developed were tested for their effect on firm performance including financial and non-financial measures. Based on a cross-section of public and private companies including small to medium enterprises, this study found extended stakeholder orientation to be an important driver of innovation orientation and firm performance.
DEDICATION

I want to dedicate this to my family. My wife, Bhanu, has always stood by me with love and confidence. She wondered at this ‘new’ venture but quickly got behind me with all her support. My daughter, Dr. Gitanjali Patel, and my son, Krishan, are now both accomplished professionals in their own right. They simply said, “Go for it, Dad.” Then they encouraged Dad all the way. My mom, now 95 years young, my brother and sisters and so many friends and well-wishers – to all of them a huge heartfelt thank you for always being there.
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Professor Parboteeah generously reviewed my early work and provided guidance. His friendship and support are a treasure. Professor Money together with Joe made sense out of the inundation of mathematical “black boxes” the methods discipline creates. He is a friend and I will never forget his mantra when you don’t quite get it, “Accept with thanks.” Finally my peers in Cohort 1 and Susan Cochran and Staff at KSU center, my thanks for helping make this journey so rewarding. I have deep appreciation, gratitude and respect for all of you.
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Chapter 1: INTRODUCTION

How can aspects of two complementary concepts, stakeholder theory and market orientation, help to develop sustainable competitive advantage and create long-term value by improving firm performance? What is the empirical evidence that stakeholders affect such key dimensions as innovation orientation and firm performance? Which stakeholders are relatively more important? In leading the company to outstanding performance, with stock price appreciation six times S&P 500 index (IBM Annual Reports, 2003-2011) over the decade from 2002 to 2012, Sam Palmisano, the chief executive of IBM, framed the core stakeholder theory issues in concise practical terms by having the top management team focus on four basic questions (paraphrased with author comments):

- *Why should customers buy from us – what is unique about us?* This question focuses on customers, competitors and the need to be able to deliver differentiated products that can result from innovation.

- *Why would people work for us?* This relates to employee orientation.

- *Why would we be welcome in society and different countries?* This question focuses on societal and cross-cultural dimensions, not the subject of this study but important.

- *Why would people invest money with us?* This is the shareholder stakeholder focus (Lohr, 2011).
Three of Palmisano’s questions relate to the research questions addressed in this study through examining stakeholder orientation and its impact on innovation orientation and firm performance. While the scope of these questions is admittedly large, this study is designed to help provide tools and initial empirical evidence. The design also helps to formulate guidelines for managers and researchers by integrating prior work in stakeholder theory and market orientation. In so doing, this study moves forward calls by numerous scholars to provide empirical support for both the integration of stakeholder and market orientation and the influence of stakeholders on organizations – directly and relatively among stakeholders (Ferrell, Gonzalez-Padron, Hult, & Maignan, 2010; Freeman, 1984; Harrison, Bosse, & Phillips, 2010; Jaworski & Kohli, 1993; Matsuno, Mentzer, & Rentz, 2005).

Contemporary headlines continue to herald unprecedented turbulence: economically, with intensifying sovereign debt crises in the U.S. and Eurozone economies; politically, with a groundswell of activist group protests worldwide demanding not just political changes but economic justice aided by lightning swift free social media such as Twitter, YouTube and Facebook (NYTimes, 2011; Yeoh, 2010). Add to these environmental challenges the tectonic shifts in global market dynamics with developed economies in effective relative decline as measured by GDP, compared to developing and emerging economies (O’Neill & Stupnytska, 2009). In aggregate, these macro dynamics are serious enough, yet technological, competitive, regulatory and social/ethical issues further compound the difficulties for corporations and organizations. Major institutions such as banks, corporations and all levels of governments, face a distressingly low point in social trust, ethical behavior, and perceived effectiveness
Amid the turbulence, managers are faced with searching for compasses and paradigms that help their organizations, large and small, navigate and thrive. Beyond survivability, strategic management questions of sustainable competitive advantage and long-term value creation increasingly arise. These questions were framed in almost prescient terms nearly three decades ago by Freeman (1984) who said in his seminal work, “…organizations are experiencing turbulence. Local, national and global issues are having far reaching impacts on organizations . . . a new conceptual framework is needed (Freeman, 1984, pp. 4-5).”

The framework Freeman suggested was stakeholder theory – not as a panacea but as an organizing framework. At its simplest level, stakeholder theory envisions organizations as a nexus for networks of stakeholders defined as groups that can affect and be affected by the organization in its pursuit of its objectives (Freeman, 2004a). For researchers and managers alike the framework leads to the need to operationalize stakeholder theory in terms of stakeholder orientation. Researchers need to underpin theory with empirical research and validation (DeVellis, 2011). Scholars have long called for more empirical studies to support stakeholder theory (Berman, Wicks, Kotha, & Jones, 1999; Clarkson, 1995; Freeman, Harrison, Wicks, Parmar, & de Colle, 2010; Harrison et al., 2010). Therefore, the need to formulate stakeholder orientation, and to develop and validate scales to support the formulation is central and the main research question addressed here.
Stakeholder theory holds that corporations are at the nexus of stakeholders engaged in value creation and trade as their primary objective (Freeman et al., 2010). Sustainable value creation and firm success are dependent on stakeholders as they exchange goods and services and build relationships over time (Harrison et al., 2010). The better stakeholder issues are addressed, the better the firm’s performance and ability to develop sustainable competitive advantage (Freeman et al., 2010; Freeman, 2004a; Harrison et al., 2010; Hillman & Keim, 2001). Stakeholder theory implies that managers create value for stakeholder groups in order to retain their contribution to firm objectives. Failure to retain stakeholder engagement can lead to failure of the firm (Clarkson, 1995). Harrison, Bosse and Phillips (2010) and others hold that creation of sustainable value is dependent on relationships with critical stakeholders requiring managers to recognize mutual stakeholder interests and develop consistent approaches to balance stakeholder interests. The consensus is that integrating the interests of a broad group of stakeholders into firm management is important, even critical (Freeman et al., 2004b; Post, Preston, & Sachs, 2002).

Stakeholder orientation can be seen as the organizational climate and processes established within a firm to address multiple stakeholder concerns. More precisely, stakeholder orientation is “the organizational culture and behaviors that induce organizational members continuously and proactively to act on a variety of stakeholder issues” (Ferrell et al., 2010, p. 93). Organizations face a wide range of stakeholders, from primary stakeholders – customers, competitors, suppliers, employees and shareholders/investors, for example – to secondary stakeholders including governmental
regulatory agencies, communities, and activist groups for environmental and social concerns (Freeman et al., 2010).

Market orientation, based on the marketing concept, is designed to measure a firm’s stance towards customers and competitors (Day, 1994). Market orientation is seen as “an organizational culture, which provides norms for behaviors that focus on assessing and acting on customers’ needs and anticipating and responding to competitors actions” (Ferrell et al., 2010, p. 94). In essence, market orientation has customers and competitors as focal stakeholders. Processes and behaviors within the firm to address focal stakeholders are part of the market orientation concept (Kohli & Jaworski, 1990; Kohli, Jaworski & Kumar, 1993; Narver & Slater, 1990). This conceptualization of market orientation extends to stakeholder orientation by adding anticipation and response to employees’ and shareholder/investors’ needs and concerns to the working definition provided by Ferrell et al. (2010). This approach aligns with the formulation of stakeholder orientation chosen for this study. Therefore, stakeholder and market orientation can be viewed as complementary, related, even overlapping concepts (Day, 1994; Ferrell et al., 2010). Furthermore, early studies and recent developments in market orientation, especially related to responsive and proactive market orientation, provide impetus and opportunity to extend similar concepts to a broader group of stakeholders (Blocker, Flint, Myers & Slater, 2011; Ferrell et al., 2010; Jaworski & Kohli, 1993; Miller & Lewis, 1991; Narver & Slater, 1990; Narver, Slater, & MacLachlan, 2004). The numerous studies and established scales developed within market orientation research provide helpful baselines (e.g., Narver and Slater, 1990; Deshpande & Farley, 1998). Indeed, scholars have called for integration and broadening of market orientation by
adding stakeholders beyond customers and competitors (Ferrell et al., 2010; Jaworski & Kohli, 1993; Maignan, Gonzalez-Padron, Hult, & Ferrell, 2011; Matsuno & Mentzer, 2000; Matsuno, Mentzer, & Rentz, 2000; Matsuno, et al., 2005).

Among conceptual developments in market orientation, some researchers made consistent calls for forward-looking and proactive orientation (Narver et al., 2004). Freeman (1984) suggested that strategic management of stakeholders to handle change could range from inactivity and reactivity to proactivity and interactivity. He defines proactivity as “trying to predict the external changes that will occur and positioning the organization towards those changes before the fact (Freeman, 1984, p. 23).” Others viewed the proactive dimension as important and called for related research (Jaworski & Kohli, 1993). In response to calls for empirical research as outlined, this study introduces and investigates the concepts of responsive and proactive stakeholder orientation.

Stakeholder-related empirical research that includes dimensions such as corporate reputation, social responsibility, the environment and firm performance is evident (Freeman et al., 2010; Harrison et al., 2010; Laplume, Sonpar, & Litz, 2008). Studies showed that stakeholder management addressing employee, customer and environmental concerns, for example, is positive for financial performance as measured by return on assets, corporate reputation, market value added, and institutional share ownership (Berman et al., 1999; Hillman & Keim, 2001). Past stakeholder research primarily addressed large, publicly listed S&P 500 or Fortune 1000 companies and used a generalized stakeholder management concept. The work utilized proxy data largely from the Kinder, Lydenberg, Domini (KLD) database which contains measures such as community relations, workplace diversity, labor relations, environmental impact and
product safety (e.g., Laplume et al., 2008; Ruf, Muralidhar, Brown, Janney, & Paul, 2001; Waddock & Graves, 1997).

Research addressing a wider cross-section of private firms and small to medium enterprises (SMEs), defined in the U.S. as firms with less than 500 employees (Ayyagari, Beck, & Demirgüç-Kunt, 2007), is less evident. Darnall, Henriques and Sadorsky (2010) used data from SMEs compiled by the OECD (Organization for Economic Co-operation and Development) and found that smaller firms are more responsive to stakeholder pressures. In the same study, the authors also found SMEs are proactive toward environmental concerns. Their findings supported the view that smaller firms are more sensitive to the local community that constitutes the collective home for employees, customers and the firm. Moreover, other studies have found that smaller firms tend to be more flexible, less committed to established products and processes, and are able to react to external pressures faster and more effectively (e.g., Besser, 1999; Darnall, et al., 2010; Dean, Brown, & Bamford, 1998; Larson, 2000). Findings from these studies provide support for including SMEs in research both with respect to sensitivity to stakeholders and the proactive stance exhibited by SMEs.

Other research more directly has shown the importance of stakeholder orientation. Greenley and Foxall (1997, 1998) and Greenley, Hooley and Saunders (2004) show that, depending on industry and competitive intensity, stakeholder orientation has contingent positive effects on firm performance and strategic choices. Greenley & Foxall (1996, 1997) based their work on multiple stakeholder orientations toward customers, competitors, employees, and shareholders. The lack of a validated scale and the UK context limited their work. In a similar study based on a survey of Chinese service
companies, Luk, Yau, Chow, Tse, and Sin (2005) found positive relationships amongst customer, competitor and employee orientation and firm financial performance. The studies used samples from non-public Dunn and Bradstreet compilations. Yau, Chow, Sin, Tse, Luk and Lee (2007) developed a scale for stakeholder orientation incorporating early work by Narver and Slater. (1990) on market orientation. Validated in a Chinese context, the scale showed a positive correlation between stakeholder orientation and firm performance. The Yau et al. (2007) study also used non-public Dunn and Bradstreet compilations. Overall, limited research based on ‘essential stakeholder’ orientation is evident, especially beyond the Asian context.

In contrast to the limited research on stakeholder orientation, empirical research on market orientation is extensive. Studies have shown market orientation to impact positively a wide range of performance measures – from customer and employee satisfaction, organizational learning, to innovation and overall firm performance (e.g., Goldman & Grinstein, 2010; Grinstein, 2008; Kirca, Jayachandran, & Bearden, 2005). The addition of employees and shareholders to focal groups of market orientation may provide better overall explanations of outcomes by incorporating two more stakeholder groups. Additionally, the relative importance of adding stakeholders into the decision making process may also emerge through empirical investigation (Harrison et al., 2010).

**Research Gaps and Limitations of Current Approaches**

In sum, the following list enumerates the research gaps and limitations:

1. There is limited research outside of the Asian context related to stakeholder orientation utilizing validated scales for essential stakeholders. The only study
in a U.S. context, a dissertation study, did not identify a significant link
between stakeholder orientation and firm performance, possibly due to the fact
that Yau et al.’s (2007) stakeholder orientation scale was developed in a
Chinese context (Duesing, 2009). There is a need for validated stakeholder
scales in a broader context, which would potentially be more useful for U.S.-
based research.

2. Research limitations associated with large public companies and secondary
database proxies suggest a gap. Database proxies, while useful, can be general
and difficult to interpret. Primary data is usually unavailable but acknowledged
as preferred for empirical research (Venkatraman & Ramanujam, 1986).
Private and smaller firms are likely to be more responsive to stakeholders;
hence, effects of stakeholder management may be more pronounced relative to
larger public companies (Darnall et al., 2010). Furthermore, empirical evidence
shows that small and medium sized enterprises and privately owned firms
represent the vast majority (over 90 percent) of all firms in global economies
(Ayyagari et al., 2007; EC SME Report, 2008). Paradoxically, however, they
are usually not the focus of academic studies on stakeholder theory. Thus,
research based on a broad sample of firms inclusive of SMEs will better
represent the prototypical firm in most areas of the world, unlike the large S&P
500 or Fortune 1000 firms generally the subjects in stakeholder research thus
far.

3. The concept of proactive stakeholder orientation has not been investigated.
There is an opportunity to incorporate the work by Narver et al. (2004) and
others (Blocker et al., 2011; Kohli, Jaworski, & Kumar, 1993). Research by Narver et al. (2004) showed that responsive or reactive market orientation was distinct from proactive orientation, which was defined as preemptive, anticipatory and forward looking. Specifically, their findings indicated that proactive market orientation contributed more to innovation orientation and new product success than responsive market orientation. While no prior effort to extend proactive market orientation to a parallel stakeholder orientation is apparent, researchers have suggested that proactively addressing stakeholder needs can create a sustainable competitive advantage (Freeman et al., 2010; Harrison et al., 2010).

4. Innovation orientation relative to essential stakeholders incorporating proactive practices remains to be researched. The ability to innovate, especially in the face of market and technology turbulence, contributes to the development of unique, irreplaceable resources. Such dynamic resources contribute to sustainable competitive advantage and long-term value creation (e.g., Barney, 1991; Christensen, Suarez, & Utterback, 1998; Peteraf & Jay, 2003; Peteraf, 1993).

**Dissertation Approach and Contributions**

The overall purpose of this study is to integrate aspects of stakeholder theory and market orientation by investigating empirical evidence of stakeholder orientation issues. In order to achieve the study’s objectives, established scales were extended and new scales were developed and validated. Many of the extant scales, such as market
orientation and innovation orientation (Kirca et al., 2005; Matsuno et al., 2000; Narver & Slater, 1990), were developed many years ago and were somewhat limited in the number of topics originally investigated. In the case of innovation orientation, for example, existing scales did not adequately reflect recent developments, such as the need for top management-led, organization-wide efforts to emphasize and reward innovation and the use of internet-based sharing of innovation and technology developments (Denning, 2010; Hult, Hurley, & Knight, 2004). Similarly, market orientation (Deshpande & Farley, 1998; Narver & Slater, 1990) needed to be expanded to represent the full scope of stakeholder orientation in terms of additional stakeholders. Finally, developments in social media for communications and feedback are now increasingly important for researchers and managers and were included in the scale development work.

Recent developments that added aspects of organizational climate and reverse engineering to scales for the essential stakeholders employees and competitors, and concepts based on responsive and proactive market orientation were integrated into the scales developed for this research (Savage-Knepshield, 2008; Sorensen, 2009; Zhang, 2010). Investigation and validation of the responsive and proactive stakeholder orientation scales with respect to firm innovativeness and performance utilized a cross-section of public and private firms, including small and medium enterprises (SMEs) in the U.S.

Without excluding alternative formulations created to serve specific facets such as socially responsible marketing as potentially valuable (Maignan, et al., 2011), it is proposed here to limit the stakeholder orientation view to four key constituencies – customers, competitors, employees and shareholders/investors. In doing so, recognition is
given to the more immediate stakeholders with whom relationships, transactions and mutual impact are a matter of continuous and frequent engagement. The four primary stakeholders chosen here fall more within the ambit of regular managerial interaction and influence. Thus, they are more appropriate for the dimensions this study has chosen to investigate (Greenley, Hooley, & Rudd, 2005; Yau, Chow, Sin, Tse, Luk, & Lee, 2007). While somewhat arbitrary, practical considerations support this formulation, as does prior work and research, notably by Greenley et al. (2005) and Yau et al. (2007), who saw the four stakeholders in focus here as “essential shareholders” (Greenley et al., 2005, p. 3). This formulation also has the advantage of linking the robust market orientation concept with the substantial empirical underpinnings developed over more than two decades (Goldman & Grinstein, 2010; Kirca et al., 2005).

Market orientation and proactive market orientation are correlated positively to entrepreneurial and innovative approaches, as seen in creativity and new product launches (Atuahene-Gima, 1996; Atuahene-Gima, Slater, & Olson, 2005; Im & Workman Jr, 2004; Lukas & Ferrell, 2000; Nasution, Mavondo, Matanda, & Ndubisi, 2010; Slater & Narver, 1995). Other research indicates that innovation orientation leads to a higher capacity to innovate in dealing with stakeholders, and therefore strengthens competitive advantage (Siguaw, Simpson, & Enz, 2006). Innovation orientation has been shown to be a mediating variable between market orientation and firm performance. How stakeholder groups, such as employees and competitors, influence this dimension and consequent firm performance should be useful. Therefore, given the importance of innovation orientation, the construct also will be included in the present study as both a
dependent variable and potential mediator between stakeholder orientation and firm performance.

Described below are the expected contributions:

1. Extension, development and validation of multiple scales related to essential stakeholders with survey data obtained from U.S.-based firms. Integration and testing of both proactive and responsive dimensions will help clarify the managerial aspects of proactivity and its contribution to firm performance.

2. Researchers will have initial indicators and tools for further in-depth research utilizing updated and extended scales. The investigation and development of validated scales incorporating recent developments, in social media and innovation practices, for example, should facilitate more in-depth research related to specific stakeholders.

3. Managers will gain added insights and guidelines on stakeholders who are potentially more important and salient, what matters to them, how they interact with the firm, and specific processes and behaviors that are consequential. The guidelines may help evaluate, reframe, and prioritize management practices.

4. The influence of stakeholders, the extent of firm proactive practices and innovation on firm performance will provide empirical evidence in the U.S. context.

**Dissertation Structure**

A description of the structure of the remainder of the study follows. Chapter 2 reviews extant literature on stakeholder theory and market orientation. Also discussed is
the refinement of the responsive and proactive components of market orientation. Chapter 3 explores the theoretical framework for the concept of extended stakeholder orientation based on similar work for market orientation incorporating both responsive and proactive elements. Research on stakeholders -- specifically related to employees and shareholders stakeholders -- is reviewed in the context of expanding market orientation. Then, the relationship between innovation orientation and stakeholder orientation is examined. Hypotheses are developed for testing with proposed scales for extended stakeholder orientation and innovation orientation in relation to impact on firm performance. Chapter 4 presents scale development, scale purification and exploratory factor analyses based on two sequential pilot studies. Sample frames and profiles of samples achieved based on professional web-based panels are examined. The underlying factors indicated by the exploratory factor analyses from the two pilot studies are determined for confirmatory factor analysis. Chapter 5 focuses on confirmatory factor analysis and discussion of reliability and validity of the construct and scales developed. Development of the unidimensional second-order construct of extended stakeholder orientation is explained. Chapter 5 also assesses SEM-based structural analysis to show predictive validity, and the relationship of extended stakeholder orientation to innovation orientation and firm performance is tested. The mediating effect of innovation orientation is examined. The results of the structural analyses are discussed. Chapter 6 presents concluding remarks and outlook. Managerial implications are elaborated. The contributions to theory are detailed, with limitations of the research in this study explored. In conclusion, major findings of the study are highlighted and future research directions are suggested.
Chapter 2: LITERATURE REVIEW

Stakeholder theory has attracted extensive academic attention and research since Freeman’s (1984) fundamental work. A comprehensive meta-analysis of mainstream and specialty journals conducted by LaPlume et al. (2008) identifies more than 175 articles dealing with stakeholder theory spanning 25 years. A wide cross-section of articles addresses theoretical, ethical and general management issues. Interest in developing stakeholder theory remains strong and appears to be re-emerging in the context of ethical considerations and sustainable value creation (Laplume et al., 2008; Parmar et al., 2010).

Similarly, market orientation has attracted considerable research as borne out by recent comprehensive meta-analyses. The studies show market orientation research has provided strong empirically supported guidelines for managers in operations and strategy (Grinstein, 2008, 2008a; Kirca et al., 2005; Liao, Chang, Wu, & Katrichis, 2010). Studies related to market orientation have investigated its interrelationship with innovation orientation. Given the significant relationship of innovation orientation to firm performance, available empirical studies are included in the review.

An examination of the research on stakeholder theory helps to provide a useful context for the purpose of this study. Relevant aspects of market orientation, innovation orientation and recent developments are also overviewed especially in relation to
stakeholder orientation. The literature review helps to provide an integrated foundation for a theoretical framework as a prelude to scale development and formulation of hypotheses.

**Stakeholder Theory**

“The stakeholder idea is alive, well and flourishing. The relevant question now is not ‘if’ but ‘how’ stakeholder theory will meet the challenges of its success” (Agle, Donaldson, Freeman, Jensen, Mitchell, & Wood, 2008, p. 153).

Grounded in strategic management, stakeholder theory holds that organizations exist to serve various stakeholders, primary and secondary, so as to maximize value for all stakeholders (Freeman et al., 2010). Primary or internal stakeholders include customers, employees, financiers, investors, suppliers and communities. This type of stakeholder is deemed essential for the survival of the firm (Freeman, 1984). In contrast, secondary or external stakeholders include government agencies, competitors, and other more peripheral interest groups (Clarkson, 1995). In the context of this study, while competitors initially are categorized among secondary or external shareholders, their impact on company operations is immediate and ongoing. Competitors actively compete for resources and can force significant changes in pricing and strategy (Sorensen, 2009). On the other hand, competitors also provide benchmarks, impetus for innovation, support for the supplier ecosystem, and validation for customers. For these reasons, from a practical point of view competitors are categorized as primary stakeholders, a view that is important for measurement of stakeholder orientation (Greenley & Foxall, 1997; Greenley, Hooley, & Rudd, 2005; Yau et al., 2007).
Stakeholder theory underpins much of the research and theory development that followed Freeman’s (1984) seminal work on stakeholder issues and strategic implications. The theory has found broad resonance as it “taps into deep emotional commitment of most individuals to the family and tribe” (Jensen 2002, p.243). Based on these emotional resonances, and despite controversial perspectives, the theory has spawned and continues to generate a broad spectrum of research streams of practical concern to organizations (Connelly, Ketchen, & Slater, 2011; Freeman et al., 2010; Jensen, 2002; Laplume et al., 2008).

Harrison et al. (2010) noted the reemergence of stakeholder theory in strategy and performance discussions. The authors suggested this reemergence could be symptomatic of increases in corporate wrongdoing with widespread impact, as well as a greater emphasis on stakeholder relationships as a network of valuable resources to build competitive advantage. The recent BP debacle in the Gulf, massive capital market breakdowns and corporate meltdowns typified by Enron, Tyco and WorldCom amongst others, suggest that a more stakeholder oriented approach to strategy, management, corporate social responsibility and the environment is justified (Darnall et al., 2010; Friedman & Friedman, 2010; Harrison & Freeman, 1999; Jones, 1995).

Freeman (1984, 2004a) indicated that the development of stakeholder theory was designed to address key management concerns related to stakeholder groups and strategy. In a review of his original work, Freeman (2004a) succinctly describes the intent and foundations of stakeholder theory as follows:

"We defined ‘stakeholder’ in a broad strategic sense as ‘any group or individual that can affect or is affected by the achievement of the corporation’s purpose’. While this definition has been the subject of much debate in the ensuing years, the basic idea was simple. We were taking the
viewpoint of senior management and our view was that if a group or individual could affect the firm (or be affected by it and reciprocate) then managers should worry about that group in the sense that it needed an explicit strategy for dealing with the stakeholder” (Freeman, 2004a, p. 229).

Freeman (2004a) went on to suggest that addressing stakeholder concerns holistically is inescapable for sound strategic choices and superior performance. Therefore, stakeholder groups should be “understood in terms of behavior, values, backgrounds/contexts, including the societal context” (Freeman, 2004a, p. 231) by management for evaluation of strategic choices. In order to address stakeholder concerns, the organization must develop an overall stance supported by processes and guidelines at the transactional level to assist in strategy formation. Managing for stakeholders (stakeholder management) requires a firm to understand stakeholder needs and wants, the utility function of stakeholders, and how to maximize the utility function in a mutuality of interest. In doing this, elements of trust, reciprocity and distributive justice are factored into the decision processes of the firm and its stakeholders. This approach can serve to enhance firm performance, create sustainable competitive advantage and therefore added value (Freeman, 1984; Freeman et al., 2010; Freeman, 2004a; Harrison et al., 2010).

Serving a broad group of constituencies requires an executive mindset dedicated to optimal value creation and balancing of trade-offs that are inevitable. Such trade-offs should be made in a constructive framework rather than a zero-sum game. Implicit in such a process is the drive to be innovative (Freeman et al., 2010). A ‘jointness’ of stakeholder interests calls for an innovative approach to delivering value to stakeholders – a ‘stakeholder mindset’ that harmonizes the needs of stakeholders to create organizational value for all stakeholders (Berman et al., 1999; DeConinck, 2010b;
Stakeholder viewpoints are not without contention. One perspective suggests that the sole purpose of a firm is to maximize profits and shareholder value and that all other interests must be subordinated to shareholder value maximization (Friedman & Friedman, 2002; Jensen, 2002). Freeman, Harrison, Wicks Parmer, and de Colle (2010) counter persuasively by suggesting that profits and sustainable value creation are neither synonymous nor in conflict with one another. Wealth creation is a function of complex stakeholder interactions over time, not necessarily measurable in financial terms over the short run. Stakeholders are well aware of intelligent trade-offs. Clarkson (1995) is even more dispositive by stating that shareholder is not synonymous with stakeholder and that evidence gathered in his work suggests that focus on the shareholder can be self-defeating. Given that Jensen (2002) concedes that stakeholder interests must be addressed to generate value and that ‘enlightened stakeholder theory’ (Jensen, 2002, p. 245) is fully compatible with value maximization, this issue is not addressed further for the purposes of this study.

While there is a general consensus that stakeholder theory is a valuable lens, the multifaceted theory has generated several different streams of emphasis. The broad connection to _strategic management_ is overarching and closely related to financial
performance issues (Freeman et al., 2010). Such issues are of practical concern in finance, accounting, management, and marketing. The theory also has found resonance in areas of business ethics and corporate social responsibility (Clarkson, 1995; Freeman et al., 2010; Harrison & Freeman, 1999; Jones, 1995; Parmar et al., 2010). Highlights of recent research in these areas are discussed together with the classic organizing framework developed by Donaldson and Preston (1995).

Descriptive/empirical, instrumental, and normative aspects of stakeholder theory provide a framework for defining and clarifying the research streams. The descriptive aspect addresses empirically available data related to stakeholders and organizations about how managers actually deal with stakeholders. The instrumental aspect is more means-ends oriented in terms of management actions and potential results. The normative aspect deals with the moral and ethical foundation of how and why organizations should handle stakeholder relations (Berman et al., 1999; Donaldson & Preston, 1995; Phillips, Berman, Elms, & Johnson-Cramer, 2010). The focus in this research is on the descriptive/empirical and instrumental facets of stakeholder theory – the ‘what’ and ‘how’ represented by the descriptive and instrumental facets of stakeholder theory, respectively. Since normative questions are generally in the conceptual domain versus the empirical domain, normative or ‘why’ questions are beyond the scope of this study.

Strategic management deals with the question of sustainable competitive advantage and resulting superior performance of firms over the long-term (Harrison et al., 2010). Stakeholders such as customers and employees represent resources and relationships that can lead to competitive advantage (Hillman & Keim, 2001). In order to create distinctive relationships with stakeholders, managers should allocate firm
resources to develop and foster trust and networks/alliances (Barney & Hansen, 1994; Kale, Dyer, & Singh, 2001). Managers need to engage in active stakeholder management. If done consistently, firms will be able to develop valuable, rare, inimitable and non-substitutable resources, which in turn, lead to, for example, sustainable advantage due to customer loyalty and willingness to pay a premium (Harrison et al., 2010). The ability to attract and retain executives and employees at all levels is another example (Greening & Turban, 2000; Turban & Greening, 1997). Again, good communications with investors and trust fostered in the capital markets reduces cost of capital from investors (Brennan & Tamarowski, 2000). The counterexamples resulting from poor stakeholder management by way of employee lawsuits for discrimination, or shareholder claims of management wrongdoing, and customer class actions, represent a serious threat to the organization (Barney, 1991; Barney, 1996; Dyer & Singh, 1998; Harrison et al., 2010; Harrison & St John, 1996; Jones, 1995).

The breadth of stakeholder theory is highlighted in Laplume’s, Sonpar’s and Litz’s meta-analysis spanning more than 20 years from 1984 to 2007 (Laplume et al., 2008). Their review identifies the following five major themes (Laplume et al., 2008, p. 1160) that serve as an overview for the major research areas described in the following:

1. Definition and salience
2. Stakeholder actions and responses
3. Firm actions and responses
4. Firm performance
5. Theory debates.
Key questions related to salience or relative importance of stakeholders need attention. Clarkson (1995) points out that the primary or internal stakeholders are the most important stakeholder groups. Paying more attention to stakeholders with close ties to operations and objectives (e.g., employees and customers) versus dissipating resources in paying attention to groups with less relevant power and influence (e.g., political or social) is seen to be an important focus. Failure to focus could result in poor performance overall. In practice, managers typically pay attention to stakeholder groups that provide valued resources (e.g., Wall Street), legitimacy and urgency (Parent & Deephouse, 2007). This is in contrast to responding to far reaching social and environmental goals not of immediate concern to the firm and therefore potentially counterproductive given scarce resources (Walsh, 2005).

Stakeholder management and resulting firm performance have been an important theme. Much of the empirical work has used secondary data and has shown a positive relationship between firm performance and stakeholder management. Berman, Wicks, Kotha, & Jones (1999) examined Fortune 100 companies. The authors demonstrated that employee relations, workforce diversity, community relations, natural environmental focus, and product safety/quality and overall strategy, all aspects of stakeholder orientation, were positively related to firm performance, as measured by return on assets. Notably, the strongest positive correlations consistently emerged for employee relations and product safety/quality (customer facing dimension). Other studies by prominent scholars also show or propose that corporate social responsibility, corporate ethical identity, and primary stakeholder groups are positively related to firm performance to varying degrees (Barnett, 2007; Berrone, Surroca, & Tribó, 2007; Gonzalez-Padron,
2008; Greenley & Foxall, 1996, 1997; Hillman & Keim, 2001; Ruf et al., 2001). Studies within Chinese companies in multiple industry sectors have shown a positive correlation between stakeholder orientation and firm performance (Luk, Yau, Chow, Tse, & Sin, 2005; Yau et al., 2007).

Theory debates and contentious perspectives represent the last of the research streams identified by Laplume et al. (2008). Much of the debate centers on the primacy of shareholder value only versus a broader group of stakeholders. Other questions relate to whether morality and ethics can and should play a role in strategic decision-making and if so, how and to what extent. An evolving research direction is toward ongoing research of a normative basis, as a guide for managers and leaders, for stakeholder considerations. Recent events involving BP in the Gulf, Enron, Tyco and WorldCom, etc., have left little doubt that consideration of ethical issues and normative foundations are inescapable in a closely linked global economy with extraordinary corporate reach and impact, as demonstrated painfully by the recent financial sector meltdown and related continuing fallout (Clement, 2005; Darnall et al., 2010; Donaldson & Preston, 1995; Friedman & Friedman, 2010; Harrison & St John, 1996; Jones & Wicks, 1999; Parmar et al., 2010; Preston & Donaldson, 1999).

In summary, as Laplume et al. (2008) state, “stakeholder theory is timely yet adolescent, controversial yet important (p. 1153).” Other researchers have reinforced the range and relevance of stakeholder theory to current organizational research (Agle et al., 2008; Parmar et al., 2010). Empirical studies on the impact of dimensions other than corporate social responsibility and environmental concerns on firm performance are limited. There are indications that stakeholder orientation is likely to deliver superior
financial performance. Studies in the UK and Chinese context have shown positive correlations but this relationship remains to be shown in a broader Western context.

Stakeholder Orientation and Market Orientation

The stakeholder orientation concept is closely related to market orientation since two of the four factors constituting stakeholder orientation – customer orientation and competitor orientation – are identical to the factors representing market orientation. Stakeholder orientation seeks to measure the degree of awareness and attention given to multiple stakeholders and attendant results. Similarly, market orientation measures a firm’s level of focus on customers and competitors and the ability to act on such market intelligence (Ferrell et al., 2010). Given that market orientation has appeared robust in numerous empirical studies as suggested by recent meta-analyses (Kirca et al., 2005), some of the insights developed within the market orientation framework may extend to stakeholder orientation.

Market Orientation

In the 1990s, researchers established market orientation as a robust and useful construct, relevant across industries, firm size, and cultures as shown by meta-analyses (Kirca et al., 2005; Rodriguez Cano, Carrillat, & Jaramillo, 2004). Market orientation purported to measure the degree to which a firm is able to gather or generate, disseminate, instill, and create a firm-wide coordinated strategic response to market intelligence, i.e. information related to customers and competitors. Market intelligence was viewed as market or customer and competitor focused (Kohli & Jaworski, 1990).
Narver and Slater (1990) created related constructs that have been used for measuring market orientation – customer focus, competitor focus, and interfunctional coordination. Market orientation was viewed as a firm-wide cultural and learning dynamic capability leading to sustainable competitive advantage (Slater & Narver, 1994b, 1995). Market orientation is also seen as an organizational culture that seeks to create superior value for customers and consequently superior performance for the firm (Kohli & Jaworski, 1990; Kohli et al., 1993; Narver & Slater, 1990; Zahra, 2008).

Numerous dimensions of market orientation and firm performance provide valuable insights for managers and practitioners. For example, effects of market and technology turbulence and environmental context did not affect the significant linkage between market orientation and firm performance (Jaworski & Kohli, 1993). Market orientation was facilitated by top management emphasis. Other research has shown that risk-taking and organization-wide support of market orientation served as positive antecedents to firm performance (Kirca et al., 2005).

Slater and Narver (1994a) found that market orientation had a long-term impact on performance and withstood rigors of the competitive environment. In a useful elaboration, the authors showed that a customer orientation served to deliver sustained superior value. Competitor focus resulted in sensitivity to alternatives available to customers and the ability to respond effectively. This aspect of response requires cross-functional coordination in a timely, cost effective manner, and should be embedded in the organization’s underlying routines and processes (Slater & Narver, 1994a, 1994b, 1995; Zahra, 2008).
A number of studies have been conducted on the effects and interactions of market orientation on product innovativeness, creativity and new product performance. New product performance is highly correlated to market orientation, especially where the new product is evolutionary (Atuahene-Gima, 1996; Im & Workman Jr, 2004). Market orientation positively influences development and launch related activities given implied customer focus (Grinstein, 2008). Additionally, market orientation appears effective in highly competitive and environmental hostility contexts (Atuahene-Gima, 1996).

Other more recent studies also indicate how important market orientation is to creativity, product innovativeness and new product performance in high-technology firms in particular (Hult et al., 2004; Hurley & Hult, 1998; Im & Nakata, 2008; Kirca et al., 2005). New products, which are meaningfully different rather than novel, enjoy better success in relation to levels of market orientation. Customer orientation and cross-functional integration both result in higher new product success and marketing creativity (Im & Workman Jr, 2004). Supporting heuristic expectations, market orientation positively impacted new-to-market products such as the Apple iPod, iPad and Appstore, and as a consequence, beneficially affected firm performance. New-to-market products are distinguished from new-to-firm products, which may be imitative. The latter do not impact firm performance as much as new-to-market products (Sandvik & Sandvik, 2003). The interaction effects between competitor orientation and cross-functional integration – two of the three key dimensions of market orientation – are significant in explaining both marketing program novelty and meaningfulness (Im, Hussain, & Sengupta, 2008).

In sum, as suggested in a meta-analysis by Kirca, Jayachandran and Bearden (2005), the positive effects of market orientation on firm performance are extensive.
Customer loyalty and satisfaction, quality perception, innovation, new product performance, and organizational impact on employees were all shown to be positively related to market orientation. The extensive and wide-ranging empirical support as discussed above and meta-analyses by others such as Grinstein (2008) provide a strong foundation for the theoretical background to this investigation. Market orientation as a concept continues to show its practical impact, and some recent refinements have important implications in extending to stakeholder orientation. These aspects need further elaboration.

**Market Orientation Refined – Responsive and Proactive Components**

In response to concerns that market orientation could result in purely reactive behavior, thereby limiting creativity and potentially stifling innovation, Narver et al. (2004) introduced the concept of proactive market orientation. Apple provides an excellent example of this concept in play. Customers have latent wants and needs they are conscious of but cannot express. Apple’s success with its innovative products often is seen as the ability to grasp unexpressed consumer needs and thus establish leading market positions (Ketchen, Hult, & Slater, 2007). When these latent customer needs are discovered through such proactive processes as lead users, trend extrapolation, and concept tests, deeper insights into customer requirements emerge and the firm increases its ability to create and deliver innovative value. Hence, the concept of proactive market orientation can lead to higher satisfaction and embedded value for customers (Blocker et al., 2011; Flint, Blocker, & Boutin, 2011; Narver et al., 2004).

Research has indicated that proactive market orientation is complementary to responsive market orientation (Atuahene-Gima et al., 2005). Moreover, proactive market
orientation is noted as being more highly correlated to performance measures than responsive market orientation in terms of innovativeness and overall financial performance. Responsive and proactive orientations together explain more of the variance in the performance measures (Atuahene-Gima et al., 2005; DeFoggi & Buck, 2009; Narver et al., 2004; Voola & O'Cass, 2008).

Proactive market orientation contrasts with the original concept of market orientation. For clarity, Narver et al. (2004) redesignated extant market orientation as responsive. Customers have requirements they can readily articulate, and responsive market orientation is based on customer feedback of expressed needs, ultimately available to all competitors. Information available to all competitors must lead to commoditization since meaningful differentiation is axiomatically challenging when customer feedback alone drives response to development of products and services (Narver et al., 2004). On the other hand, proactive orientation may help develop proprietary information and resultant innovative products and services.

Proactive market orientation implies being a market leader rather than a customer follower. For example, as is well known, Google anticipated powerful search needs with ease of use and advertiser monetization, thereby creating an exciting and innovative business model. Procter and Gamble sent video crews into households around the world in order to go beyond insights available through the more traditional methods such as focus groups and interviews (Narver et al., 2004). The acknowledged leadership of both companies (Fortune 500 list, 2011) serves to underline the importance of proactive orientation.
Importantly, Narver et al. (2004) showed that proactive market orientation and responsive market orientation are distinct constructs. Proactive market orientation was more significant in explaining new product success than responsive market orientation. Subsequent empirical research showed proactive market orientation in combination with responsive market orientation, provided a higher degree of explanation of financial firm performance and correlation with innovation, new product success, and employee and customer satisfaction (Atuahene-Gima et al., 2005; DeFoggi & Buck, 2009; Tsai, Chou, & Kuo, 2008; Voola & O'Cass, 2008).

In addition to consumer related market orientation, more recent studies have focused on the critical need for proactive orientation in business-to-business customer relationships (Blocker & Flint, 2007). Customers require that suppliers bring new ideas and solutions to them in the information technology industry, for example. Studies demonstrate that the ability to understand and provide customer needs in an adaptive and anticipatory manner helped to build customer value, loyalty and satisfaction. Reports indicated some customers terminated supplier relationships that did not provide value added through forward-looking solutions (Blocker & Flint, 2007; Flint et al., 2011). Other studies showed the need for adaptive foresight or a ‘headlight’ versus rear view mirror approach to customer service as important for building long-term customer value (Narver et al., 2004; Zeithaml, Bolton, Deighton, Keinningham, Lemon & Petersen, 2006).

**Innovation Orientation and Firm Performance**

Innovation orientation is viewed as the ability and capacity of firms to adopt or implement new ideas, processes, or products successfully (Hurley & Hult, 1998; Siguaw
Firms with the ability to innovate are able to gain competitive advantage resulting in higher overall performance (Deshpande, Farley, & Webster, 1993; Dobni, 2006; Hult et al., 2004). Empirical evidence showed the mediating effect of innovation orientation and firm performance relative to market orientation for firms in the banking and technology sectors (Baker & Sinkula, 2009; Han, Namwoon, & Rajendra, 1998). Innovation is necessary in creating the stream of products and services that can help maintain a competitive edge (Denning, 2010; Narver et al., 2004). If the ability to innovate is lacking, a firm’s survival may be threatened, especially in turbulent and high growth environments where disruptive developments are likely (Damanpour, 2010; Grinstein, 2008; Salomo, Talke, & Strecker, 2008; Siguaw et al., 2006).

More recent articles related to innovation, although practitioner oriented, support earlier research. The studies consistently point to the critical need for innovation to sustain and build revenues and therefore firm performance. Innovation is especially important with myriad technology and market shifts (Hult et al., 2004). The articles emphasize management practices that formalize brainstorming and top management participation for maximal returns. In the case of Procter and Gamble and Intuit, two public companies both new products launched and revenue growth were significantly improved by innovative practices, considered fundamental to innovation orientation (Brown & Anthony, 2011; Denning, 2010, 2011; Martin, 2011)

As discussed earlier, market orientation and innovation are shown to be positively correlated and therefore, innovation orientation potentially acts as a partial mediator between stakeholder orientation and firm performance, as suggested in the model proposed herein (Slater & Narver, 1995). A recent study of mainland China
manufacturing firms was supportive of the positive correlation amongst market orientation, innovation orientation, and new product success (Zhang & Duan, 2010). In sum, the empirical evidence suggests innovation orientation plays a significant role interactively with market orientation. Hence, the relationship of innovation orientation to stakeholder orientation also bears investigation.

Literature directly linking the broader stakeholder orientation concepts and innovation orientation is sparse. However, considerable literature and numerous empirical studies show a close link between innovation and both market orientation and proactive market orientation (Atuahene-Gima, 1996; Atuahene-Gima, Slater, & Olson, 2005; Grinstein, 2008; Hurley & Hult, 1998). Several studies reported support for the relationship of market orientation to product or service innovation. An early study by Atuahene-Gima (1996) found a positive relationship between market orientation and innovation. The study showed that innovation fit mediated market orientation in leading to market success. Im and Workman (2004) showed that market orientation directly influenced creativity and thereby market and financial performance in high technology firms. Sandvik and Sandvik (2003) demonstrated that market orientation led to higher innovativeness in the context of the hospitality services industry. Finally, Hult, Hurley and Knight (2004) showed that market orientation is an antecedent to innovativeness, especially under high market turbulence, and is also the most important direct driver of better business performance.

Proactive market orientation has received limited attention with respect to innovation, despite its relevance and importance suggested by Narver et al. (2004). Atuahene-Gima (2005) showed a complex relationship amongst responsive market
orientation, proactive market orientation and new product program performance in terms of market share, sales growth and profitability. Proactive market orientation showed a significant, but subject to an inverted-U, relationship with new product performance. Being proactively oriented results in higher new product success. But at some threshold point, the diminishing returns from proactive orientation become evident and subsequently, undue focus on innovation generated by proactive orientation can result in failed launches and inadequate customer service, and hence a drop in new product performance. Conversely, responsive market orientation appeared subject to a U-shaped effect. Responsive market orientation serves an important role as a follow through for new product programs. Responsive orientation is necessary for provision of good service and customer relations. Initially limited or low responsive market orientation, below a threshold, seems to have a negative effect on new product performance, since new product performance requires more sensitive support and service. Specifically, as the degree of responsive market orientation increases, the ability to avoid mistakes in product design and launch and to provide better service and support to customers from the beginning improves. Thus, a U-shaped effect is likely the outcome. In relation to innovation orientation, both responsive market orientation and proactive market orientation are evidently complementary constructs (Atuahene-Gima, 1996; Atuahene-Gima et al., 2005). One study of medical firms in the U.S. showed complementarity, but proactive market orientation appeared linked more definitively to financial performance, new product launches and revenue contribution (DeFoggi & Buck, 2009). Baker and Sinkula (2009) found that market orientation impacts innovation success, which also impacts firm profitability. With proactive market orientation shown to have higher impact
on innovativeness (Narver et al., 2004), the role of proactive stakeholder orientation should similarly emerge as a stronger affect based on the proposed study here.
Chapter 3: THEORETICAL FRAMEWORK

The rationale for addition of employee and shareholder orientations to complement market orientation is reviewed. Scale development involves item generation and exploratory factor analysis and subsequent confirmatory factor analysis. The theoretical framework provides the background to item generation, scale purification and exploratory factor analysis, all of which enable the development of the final validated scales for administration. The theoretical framework and exploratory factor analysis form the basis for the hypotheses to be tested in the confirmatory factor analysis stage, not only to provide further scale validation but also to provide empirical evidence of construct interrelationships and outcomes.

Conceptual Overview

Empirical research connecting stakeholder orientation and dimensions of firm performance has been limited. Yau et al. (2007) showed a positive correlation between stakeholder orientation and measures of financial performance and employee and customer satisfaction in the Chinese context. Greenley & Foxall (1997) and Greenley et al. (2004) found, albeit without a validated scale, that stakeholder orientation influenced strategic choices on the part of management and therefore affected firm performance. Only one study has been conducted in the U.S. (Duesing, 2009), but it was inconclusive and did not show support for a linkage between stakeholder orientation and firm
performance. The author suggested the problem could have been the sample’s slow response rate, which was limited to Tulsa, Oklahoma (Duesing, 2009). The absence of empirical work may also be the result of a lack of a formalized scale other than that developed by Yau et al. (2007) in the Chinese context with its limitations. Primary data is also difficult to obtain and a possible deterrence to research on this topic.

To overcome limited research to date, the premise here is that empirical work related to market orientation is indicative of potentially similar results in relation to stakeholder orientation. In addition, as suggested by Ferrell et al. (2010) and Matsuno, Mentzler and Rentz (2005), integrating more stakeholders should not only better explain more dimensions such as firm performance, but also provide insights on which stakeholder groups are relatively more influential, and therefore could be addressed more productively by management.

In accord with stakeholder theory, marketing scholars have urged that the marketing discipline be extended to incorporate awareness and integration of a wider set of stakeholders for a more complete perspective (Ferrell & Ferrell, 2009). It is suggested, for example, that such an extension could motivate organizational culture to exhibit more responsible and ethical corporate behavior, which is ultimately beneficial for performance (Ferrell et al., 2010; Maignan & Ferrell, 2004). A number of researchers called for incorporation of additional stakeholders in empirical studies (Atuahene-Gima & Ko, 2001; Ferrell & Ferrell, 2009; Ferrell & Ferrell, 2008; Ferrell et al., 2010; Greenley et al., 2005; Maignan & Ferrell, 2004; Matsuno, et al., 2005; Slater & Narver, 1995). These researchers have suggested that considering a broader set of stakeholders implicit in stakeholder orientation may have a higher correlation with firm performance.
The compelling logic is that if a firm’s culture incorporates employees and shareholders in addition to customers and competitors, the essential stakeholders as proposed for this study, better overall performance should emerge. For example, if employees are aligned with customer service, higher customer loyalty will likely lead to a competitive advantage. Similarly, if shareholders were provided with superior returns in a trusting relationship, the availability and cost of capital would improve also (Harrison et al., 2010; Zhang, 2010).

**Extended Market Orientation and Stakeholder Orientation**

Matsuno et al. (2005) developed an extended market orientation (EMO) concept and scale to integrate additional stakeholders. Graphics adapted from Matsuno et al. (2005) are useful in conceptualizing the premise adopted for this dissertation. On the following page, the conceptual model in Exhibit 3.1 provides the basis of the extended market orientation concept and is helpful in understanding the premise. Exhibit 3.2 presents an adapted version of the Matsuno et al. (2005) view of extended market orientation.

As can be seen, the intent in developing the extended market orientation concept (EMO) was to incorporate stakeholders beyond customers and competitors and to evaluate internal processes as part of measuring the EMO construct. The scale developed by Matsuno, Mentzler, and Rentz. (2000) was similar to the 20-item MARKOR scale developed by Kohli et al. (1993). But it included more items related directly to
Exhibit 3.1 – Generic Antecedents to Orientations and Outcomes Model

Source: Matsuno et al. (2005, p.3)

Exhibit 3.2 – Extended Market Orientation

Source: Adapted from Matsuno et al. (2005, p.3)
technology, competitors and regulatory agencies. The eventual Matsuno et al. (2005) 22-item scale retained the primary focus of the Kohli et al. (1993) intelligence generation component, but combined intelligence dissemination and organizational responsiveness.

Matsuno et al. (2000, 2005) integrated items such as “In this business unit, we collect and evaluate information concerning social trends (e.g., environmental consciousness, emerging lifestyles) that might affect our business” and “Technical people in this business unit spend a lot of time sharing information about technology for new products with other departments” and therefore did not evaluate specific orientations related to customers and employees. The augmented scale showed a higher correlation to the outcome variables of return on assets and investment than the Kohli et al. (1993) scale, demonstrating that integration of additional stakeholder related items can improve the predictive value of market orientation constructs.

In contrast to Matsuno et al. (2005), Yau et al. (2007) included the Narver and Slater. (1990) scale components that addressed customer and competitor orientations (5 items each) but did not include the five items on organizational coordination. Yau et al. (2007) added employee and shareholder orientation scales to research the effectiveness of the ‘essential stakeholders’ concept. The work by Yau et al. (2007) demonstrated that stakeholder orientation represented a unidimensional construct with four essential stakeholders. Further, stakeholder orientation correlated positively to firm performance. Exhibit 3.3 on the next page presents the model and results obtained by Yau et al. (2007) for reference since it serves as a precursor to the expected development work in this study. As discussed earlier, the model did not work outside the Chinese context in the
only use of the scale in the U.S. (Duesing, 2009). With that caveat, the structural aspects of the model are informative as are the indicative path coefficients obtained.

Building on this model and integrating proactive and responsive market orientation as proposed by Narver et al. (2004) provides a foundation for the research in this study. For reference, Exhibit 3.4 presents the Narver et al. (2004) model. A key observation is that Narver et al. (2004) showed that proactive market orientation exhibited a somewhat stronger correlation than responsive to both innovation orientation and new product success. While the results were obtained only within an exploratory framework due to the limited sample size of N=41, the directional relationships provide useful insights.

**Exhibit 3.3 – Yau et al. Model and Path Coefficients**

![Diagram](Image)

Source: Yau et al. (2007, p. 1320)
Firm Performance

In general, firm performance is the focal outcome and well-established measure for extant work in stakeholder orientation and market orientation. At this stage it may be helpful to elaborate on firm performance as implemented in literature to assist the formulation of firm performance for this study. Yau et al. (2007) in particular utilized self-reports on financial and non-financial measures. The financial measures implemented by Yau et al. (2007) focused on overall profit level, profit margin, and return on investment among the financial measures. Additional measures related to marketing performance – sales volume and market share achieved – were included. The non-financial measures implemented by Yau et al. (2007) related to customer and employee satisfaction. The self-report measure assessed levels of customer loyalty and satisfaction; the employee satisfaction measure assessed contributions to local
employment and income, employee retention and employee job satisfaction. All measured items were assessed relative to competitors (Yau et al., 2007). Narver and Slater (1990) focused only on the self-reported return on assets for the strategic business unit responding. Jaworski and Kohli (1993) only focused on overall business unit performance, directly and relative to competitors -- again on self-report. In a similar manner other studies utilized self-reports both directly and relative to competitors to assess sales revenue, sales growth, market share, profit margins, return on investment and customer and employee satisfaction, depending on the focus chosen for the study. The choices for the measures did not appear to follow any particular method; rather the relatively simple questions reflected some aspect of research focus (Baker & Sinkula, 2009; Deshpande & Farley, 1998; Matsuno et al., 2005).

As formulated for this study, the outcome variable of firm performance is based on established self-report items and reflects well-established measures. Self-reports are considered acceptable where alternative objective information is not available (Dess & Robinson, 1984; Venkatraman & Ramanujam, 1986). The scale chosen here synthesizes work by Yau et al. (2007) and others who used a similar approach (Deshpande & Farley, 1998; Matsuno et al., 2000; Narver & Slater, 1990). The self-report items request degree of satisfaction with sales growth, profitability, and market share for financial parameters. Additional measurement items include assessed degree of customer and employee satisfaction for non-financial measures and overall satisfaction with firm performance relative to competitors. Thus, both a direct and competitor-relative assessment is obtained to test convergence of the direct and relative assessments as evident in some of the studies discussed. The six items are then modeled as a unidimensional measure for
confirmatory factor analysis. The firm performance measure formulated for this study to
test the relevant hypotheses is shown in Appendix 4 as part of the survey implemented.

**Responsive and Proactive Stakeholder Orientation Issues**

The distinction between responsive and proactive stakeholder orientation needs
further elaboration to support development of scales and related hypotheses. The existing
approach to stakeholders represents responsive stakeholder orientation (Narver et al.,
2004). As suggested by Narver et al.’s (2004) work, responsive stakeholder orientation is
based on readily available feedback and information. It follows that to a certain extent
decisions involving readily available information will be reactive and involve a time lag.
The ongoing monitoring of stakeholders’ concerns and issues and addressing them in a
balanced set of trade-offs underlies responsive stakeholder orientation. As such it can be
considered good management. The reactive nature will be limited, however, in creating
differentiation for competitive purposes. Moreover, simply responding to expressed
needs can risk missing shifts in underlying trends and issues. In some instances, only
being responsive may be too late to implement corrective actions.

In contrast, proactive stakeholder orientation is conceptualized as an organization-
wide effort to uncover latent or unexpressed needs and wants in an anticipatory way, and
then to act on such information by specific organizational processes of sharing developed
data for action both operationally and strategically (Narver et al., 2004). Proactive
attention to latent needs was a logical extension suggested as necessary to avoid both a
lag effect and an incremental approach to product/services development, which could
lead to becoming a perennial follower and even failure of the firm (Christensen & Bower,
1996; Narver et al., 2004). Proactivity is by its nature preemptive (Blocker et al., 2011);
therefore, it results in anticipation and well-planned readiness to meet challenges that may emerge due to competitive or environmental factors within key stakeholder groups.

In general, proactive stakeholder orientation should be more effective in influencing performance and related dimensions (Berman et al., 1999; Narver et al., 2004). Thus, the generation of indicator items for the proposed scales should incorporate proactive concepts.

**Employee and Shareholder Orientations: Expanding Market Orientation**

The expansion to measure stakeholder orientation will add employee orientation and shareholder orientation to the stakeholder groups previously studied in market orientation (i.e., customers and competitors). Employees represent a fundamental resource – a frontline that must be motivated and satisfied in order to build sound relationships and deliver consistently superior value to stakeholders critical to the company. Similarly, shareholders provide the investment funds, an obvious key resource (Harrison et al., 2010). Therefore, the addition of these two major stakeholder groups should lead to a better overall measure of antecedents to firm performance.

Employees constitute human capital. The degree of empowerment, teamwork, training, incentives, profit sharing, and information sharing over time builds an intangible and valuable resource contributory to competitive advantage and firm performance (Barney, 1991). Employee orientation, which is sensitive and addresses these concerns, would strengthen human capital as a resource. Policies and processes, which identify employee issues for action preemptively, can prevent any festering by definition. Employee wellbeing and trust helps reduce stress and improve alignment with firm
objectives (Babin, Boles, & Robin, 2000). An employee-oriented culture enhances team problem solving and knowledge sharing. Given that employees can have boundary-spanning responsibilities, the incentives provided by a supportive climate lead to more market sensitivity in terms of product and service improvements and innovations (Janz & Prasarnphanich, 2003; Surroca et al., 2010; Zhang, 2010).

When leadership espouses stakeholder values and these aspects are apparent to employees, extra effort results from the employees with consequent improvement in firm performance. The espousal of stakeholder values creates a sense of visionary leadership that motivates and creates future oriented decision making, important to firm performance (de Luque, Washburn, Waldman, & House, 2008; Harrison et al., 2010). It is therefore likely that proactive attention to employees’ wellbeing, learning and ethical caring culture will result in higher organizational commitment, less turnover and the ability to attract and retain a superior workforce. Collectively these aspects will generate a competitive advantage which would translate into better performance overall (Barney, 1991; Barney & Wright, 1998; Berman et al., 1999; Cullen, Parboteeah, & Victor, 2003; Greening & Turban, 2000; Slater & Narver, 1995; Turban & Greening, 1997; Zhang, 2010).

Shareholders/investors provide capital and liquidity. By being sensitive to shareholder requirements, maintaining better investor communications, and establishing a trusting relationship with investors and financiers, firms can have the important financial wherewithal and flexibility to outcompete and grow. If investor relations, which are focused on shareholders needs, are poor and lack trust, the result can be share sell-offs (Brennan & Tamarowski, 2000). The cost of capital can become prohibitive and liquidity
impaired. Especially for smaller firms, relationships with financiers can provide timely and much needed access to risk funds. Poor investor relations can result in withdrawal of support and risk failure for lack of funds. Hence, shareholder orientation seems to be important in a balanced stakeholder approach (Harrison et al., 2010; Hillman & Keim, 2001; Sapienza & Korsgaard, 1996).

In sum, the addition of employees and shareholders to the well-established focus of market orientation provides the wider attention represented by stakeholder orientation and advocated by scholars. Proactive orientation not only complements responsive orientation but also may lead to competitive advantages and therefore better firm performance. Extending the existing stakeholder orientation constructs by including proactive considerations to the four essential stakeholders should result in a complementary set of dimensions better able to explain interrelationships among the stakeholders, innovation orientation and firm performance. Matsuno et al. (2005) suggested the concept of extended market orientation to distinguish inclusion of a broader set of stakeholders in the traditional market orientation concept. In a similar vein, a stakeholder orientation concept that includes the essential stakeholders and proactive elements suggests an extended stakeholder orientation. Yau et al. (2007) showed that stakeholder orientation was a unidimensional construct. Thus, extended stakeholder orientation is likely to be unidimensional as well. Since extended stakeholder orientation adds proactive facets and two important stakeholders – employees and shareholders – to market orientation, which has a well-established positive correlation to firm performance (Kirca et al., 2005; Narver & Slater, 1990), extended stakeholder orientation should influence firm performance positively. Therefore:
H1: Stakeholder orientations have both responsive and proactive components that together are representative of extended stakeholder orientation.

H2: Extended stakeholder orientation is positively related to firm performance.

**Innovation and Stakeholder Orientations**

Innovation orientation has a significant impact on firm performance and the ability to maintain a sustainable competitive advantage (Hult et al., 2004; Siguaw et al., 2006). Since stakeholder orientation, with its broader group of essential stakeholders, is expected to impact innovation positively, this relationship needs to be explored.

Unfortunately, formal scales for innovation orientation are limited. For example, Narver et al. (2004) had only 3 items measuring innovation orientation. No other validated scale for innovation orientation is available. Yet significant developments in innovation and its importance are evident (Denning, 2011; Martin, 2011). For example, the influence of top management and incentive and reward systems is considered crucial (Denning, 2010). Moreover, an implicit culture of innovation through emphasis on organization-wide innovative practices and recognition of external and internal developments is also important.

The imperatives for innovation orientation have increased with technology shifts, sometimes disruptive, a reality (Brown & Anthony, 2011; Bower & Christensen, 1995; Denning, 2011). Innovation is necessary and failure to implement necessary changes in a timely way can lead to failure of the firm or loss of market share (Christensen & Bower, 1996). Innovation is important for firm performance and innovation orientation can be a useful construct to investigate. Hitherto modern practices as discussed are yet to be formally researched, although practitioner-oriented commentary is available (Denning,
Moreover, the mediating effect of innovation orientation relative to market orientation and firm performance has been shown in the technology and banking sectors (Baker & Sinkula, 2009; Han et al., 1998). Synthesizing the studies and practitioner commentary on innovation suggests the importance of investigating the relationship between stakeholder orientation, innovation orientation and firm performance. Innovation orientation and its impact on firm performance with possible antecedent and mediating effects relative to extended stakeholder orientation may yield insights.

In summary, the addition of employees and shareholders/investors to the market orientation measures related to customers and competitors with proactive elements included should result in added explanatory factors related to innovation orientation and firm performance. Employees are key to a learning organization and therefore to innovation (Hurley & Hult, 1998). Access to risk capital provided by shareholders is a key resource. Employees and shareholders augment customer and competitor focus and therefore should also explain more of the link between stakeholder orientation and innovation. Researchers show that market orientation correlates positively to innovation orientation and innovation orientation correlates positively to firm performance (Atuahene-Gima, 1995; Brown & Anthony, 2011; Grinstein, 2008; Narver et al., 2004). Innovation orientation is related to firm performance and may have a mediating role (Baker & Sinkula, 2009; Han et al. 1998). The proposed extended stakeholder orientation incorporates proactive dimensions and additional stakeholders who augment market orientation and therefore may result in a positive correlation relative to innovation orientation and firm performance. Accordingly, it is hypothesized that:
H3: Extended stakeholder orientation is positively correlated to innovation orientation.

H4: Innovation orientation is positively correlated to firm performance.

H5: Innovation orientation mediates the relationship between extended stakeholder orientation and firm performance.

Exhibit 3.5 illustrates the synthesis of market orientation, stakeholder orientation, proactive elements and innovation orientation and hypothesized relationships with firm performance.

Exhibit 3.5 – Essential Stakeholders, Extended Stakeholder Orientation and Innovation Orientation
Scale development and confirmatory factor analyses necessary to test the hypotheses are implemented in the next sections. The hypotheses are tested based on SEM analyses; SEM-based analyses are recommended when scale development is integral to the research (Hair et al., 2010).
Chapter 4: SCALE DEVELOPMENT AND EXPLORATORY FACTOR ANALYSIS

Scale Development Overview

According to Hair, Black, Babin and Anderson (2010), scale development approaches require the measurement scales to have content, convergent, discriminant, and nomological validity. Content or face validity assesses the relevance of the scale items to the latent concept being investigated based on expert judgment. Convergent validity seeks to ensure that measures are correlated at an acceptable level. Discriminant validity measures the unidimensional distinctiveness of the factors as dimensions of the measurement model being investigated. Nomological validity seeks to establish the predictive power of the constructs in line with logical and theoretical expectations. Churchill (1979) suggests a sequential iterative process for scale development with sound psychometric properties. Hinkin (1998) also suggests an iterative six-step scale development process with pragmatic guidelines. Salient points of recommendations by various scholars are summarized in Exhibit 4.1 for reference (Churchill, 1979; DeVellis, 2011; Hair et al., 2010; Hinkin, 1995, 1998).

Briefly, in keeping with suggestions by early researchers, items generated should be simple and short, avoid ambiguity, and be formulated in language familiar to target respondents (Churchill, 1979; DeVellis, 2011; Hinkin, 1998). Item pool generation.
### Exhibit 4.1 – Summary of Scale Development Recommendations and Guidelines

<table>
<thead>
<tr>
<th>Stages</th>
<th>Procedures and suggestions</th>
</tr>
</thead>
</table>
| **Stage 1 – Domain specification and item generation** | • Domain specification and item generation. Clarity and specificity of domain specification with strong theoretical base needed for relevant, meaningful items that adequately capture the domain.  
• Use domain experts, practitioners, focus groups and scenarios, academic literature review and current thinking from management and business magazines, e.g., *Harvard Business Review*, *Fortune* and *McKinsey Quarterly*, etc., to broaden and contemporize item generation.  
• Maximize items – some redundancy advisable and acceptable in early stages. |
| **Stage 2 – Item pool development and pretest** | • Item wording should be short, simple, and unambiguous. Avoid double-barreled questions that confuse respondents.  
• Reverse wording of questionable value from psychometric point of view.  
• Avoid leading questions and social bias potential.  
• Content validity for items may need Q-sort to identify relevance. Use subject matter expert and field practitioner feedback for initial pretest questionnaire refinement.  
• Delete unclear items. Ensure at least 4-5 items per scale. Too few items risks scale reliability and validity. Too many items may create respondent fatigue and carelessness.  
• Use smaller sample for formal or informal pretests depending on subject matter to refine or add items, clarify item wording. |
| **Stage 3 – Survey design and administration** | • Survey should be visually appealing, clear, uncluttered and provide ease of response. Survey design experts should be consulted prior to administration.  
• User-friendly, well-structured surveys with sections for larger surveys helpful. Assist respondents in maximizing response variance choices.  
• Use of Likert and graphic rating scales, variety in end points, and other means to minimize response bias. |
| **Stage 4 – Scale purification and pilot tests.** | • Use exploratory factor analysis to determine factor structure and dimensionality. Criterion validity for items and constructs determined. Reliability of scales and items assessed.  
• Inter-item communalities/correlations to be checked. Eliminate cross-loads and weak (< 0.4) loads.  
• Retain a logical factor structure. Pay attention to parsimony in number of factors and items. |
| **Stage 5 – Confirmatory factor analysis** | • Use independent sample and preferably CB-SEM for analysis subject to data collection capability.  
• Determine convergent and discriminant validity of constructs.  
• Replication and post-hoc analysis may provide insights. |

requires careful definition of the construct domain. Initially, items should be maximized even at the risk of redundancy. Ultimately, the number of items must be reduced, but the final questionnaire should include at least 3-5 indicators per latent construct. Pre-tests with experts and practitioners are suggested with modifications incorporated prior to additional pretests, with a small sample of cooperative respondents to assist in the item purification process. Survey design and administration should incorporate design and domain expert feedback, and ensure ease of use and response pattern considerations to maximize variance (Hair et al., 2010; Hair, Celsi, Money, Samouel, & Page, 2011; Hinkin, 1995; Worthington & Whittaker, 2006).

Exploratory factor analysis is then suggested to determine factor structure and initial convergent and discriminant validity as part of a two-step process (Anderson & Gerbing, 1988). At this stage, item elimination to reduce cross-loadings, weak loadings or low intercorrelations is advised. A subsequent confirmatory factor analysis would then help to further refine convergent and discriminant validity, thus assessing construct validity. The scales can be tested further for convergent, discriminant and criterion validity with other measures. Criterion validity would seek to establish predicted relationships. With the preceding steps completed, replication and further iterative refinements can be carried out as necessary (Costello & Osborne, 2005; Gerbing & Anderson, 1988; Rossiter, 2002).

The multiple steps that served as a guideline for this study are further outlined in the visual framework adapted from Walsh and Beatty (2007) in Exhibit 4.2.
Exhibit 4.2 – Scale Development Process

<table>
<thead>
<tr>
<th>Scale generation and Initial Purification</th>
<th>Scale Refinement</th>
<th>Scale Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended elicitation procedure and literature analysis</td>
<td>Exploratory factor analysis</td>
<td>Confirmatory factor analysis on dimensional model</td>
</tr>
<tr>
<td>Initial depth interviews</td>
<td>Confirmatory factor analysis</td>
<td>Assess convergent validity</td>
</tr>
<tr>
<td>Generate initial pool items</td>
<td>Assess content validity</td>
<td>Assess second order model</td>
</tr>
<tr>
<td>Interrater reliability</td>
<td>Construct validity – convergent and discriminant validity</td>
<td>Assess predictive validity</td>
</tr>
<tr>
<td>Experts assess face and content validity</td>
<td>Assess predictive validity</td>
<td>Assess nomological validity</td>
</tr>
<tr>
<td>Q-sort for categories</td>
<td>Refine scale</td>
<td>Final scale developed</td>
</tr>
<tr>
<td>Further inter-rater reliability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check categorization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Purification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Walsh and Beatty (2007, p.131)

Two sequential pilot studies were completed, with 203 and 204 plus respondents respectively, across a broad cross-section of firms in the U.S. The two-step exploratory factor analyses formed the basis for a parsimonious set of scales for a final survey with a sample size of at least 350. The large number of items dictated the sample sizes and was designed to facilitate the later use of SEM for confirmatory factor analysis.

Item Generation and Pre-test

Defining the construct domains for the scale development is fundamental and an important precursor to further work in item generation. The clarity and specificity of the construct domains to be investigated helps to ensure items generated are better correlated, and content validity and reliability are satisfactory (Rossiter, 2002; Suddaby, 2010). DeVellis (2011) notes that there is general agreement in the social sciences that indicator
variables will relate most strongly to one another when they are also specific (DeVellis, 2011, p. 74). While clarity is advocated, too narrow a focus should be avoided since that might eliminate avenues for research (Suddaby, 2010). The central concept of this study relates, therefore, to management orientation toward essential shareholders. Thus, the focus is on management perspectives of policies and practices, and how they are evident in the firm. This approach is consistent with Freeman (2004a) who suggested that stakeholder theory was meant to be pragmatic and management oriented in its application from the get go. In effect, the item generation for this study focused on management objectives, behaviors, and processes. The extension to proactive orientation is the second major aspect of the construct domain to be addressed in item generation.

Following suggestions within the market orientation domain, the concept of orientation is more generally seen as a composite of behaviors, organizational culture, and processes within a company toward a stakeholder group, in this case the four essential stakeholders of this study (Deshpande & Webster Jr, 1989; Ferrell et al., 2010; Jaworski & Kohli, 1993; Maignan & Ferrell, 2004; Maignan et al., 2011; Narver & Slater, 1990). Management perspectives of the organizational culture and processes represent the working definition adopted for the generation of scale items. Exhibit 4.3 on the following page summarizes the definitions or descriptions for market and stakeholder orientation in extant literature. The item generation process applied here integrates these elements with a managerial emphasis. Especially noteworthy in Exhibit 4.3 is that increasingly, more recent research and conceptual papers have addressed wider stakeholder groups (Matsuno et al., 2005; Ferrell et al., 2010; Maignan et al., 2011).
## Exhibit 4.3 – Construct Domains of Market and Stakeholder Orientation Studies

<table>
<thead>
<tr>
<th>Author</th>
<th>Construct Domain</th>
<th>Definition Operationalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narver and Slater (1990)</td>
<td>“Market orientation (MO) is the organization culture . . . that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers, and thus continuous superior performance for the business (p. 21).” MO conceptualized as a one-dimension construct composed of 3 components operationalized.</td>
<td>Three behavioral components – customer orientation, competitor orientation and interfunctional coordination with long-term focus and profitability as decision criteria. Customer and competitor orientation seen as activities involved in obtaining and disseminating information about the two stakeholders. The third component seeks to evaluate the activities that coordinate firm response. Result was a 15-item scale.</td>
</tr>
<tr>
<td>Kohli and Jaworski (1990)</td>
<td>“Market orientation is the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it (p. 6).” Market intelligence refers to scanning of customers’ needs and industry changes plus attention to a broader set of forces such as government regulation, competitors, and environmental forces – note these are remarkably close to stakeholder concepts.</td>
<td>Concept study pointing out the importance of market orientation impact on strategy, employees and customers. Assist in clarification of domain and factors involved. Importantly, suggested “market intelligence includes anticipating customer needs . . . because it often takes years for an organization to develop a new product offering (p. 4).”</td>
</tr>
<tr>
<td>Jaworski and Kohli (1993)</td>
<td>Extended the Jaworski et al. (1990) study to antecedents and consequences. Added top management emphasis and risk profile, and employee interdepartmental connectedness to antecedents to MO.</td>
<td>Developed scales for intelligence generation, dissemination and response design or planning and implementation. Refined the idea of responsiveness to be two distinct components – response design and response implementation, i.e., developing plans and implementing based on market intelligence. Resulted in a 32-item scale.</td>
</tr>
<tr>
<td>Matsuno et al. (2005)</td>
<td>Suggested inclusion of all primary stakeholders and competitors into extended market orientation measures related to Kohli et al. (1993) emphasis on activities.</td>
<td>Useful suggestions parallel to the stakeholder orientation directed to essential stakeholders focus adopted by Greenley et al. (2005) and Yau et al. (2007) and this study.</td>
</tr>
<tr>
<td>Ferrell et al. (2010)</td>
<td>Provided working definition of stakeholder orientation: “…the organizational culture and behaviors that induce organizational members to be continuously aware of and proactively act on a variety of stakeholder issues (p. 93).”</td>
<td>Suggested stakeholder orientation encourages attention to diverse groups instead of singular focus on only shareholders for example. The proactivity concept is embedded in the proposed definition.</td>
</tr>
<tr>
<td>Maignan et al. (2011)</td>
<td>Suggest market and stakeholder orientation are complementary and propose organizational culture and behaviors influence outcomes.</td>
<td>Emphasize culture and behaviors as reflected in values, norms and tangible processes, policies as components of stakeholder orientation – more directed to ethical and corporate reputation issues.</td>
</tr>
</tbody>
</table>
The proactive dimension of stakeholder orientation also needs definition. In applying the concept of proactivity to item generation, terminology that emphasizes forward planning, anticipatory actions, and discovery of latent stakeholder needs preemptively must be incorporated (Narver et al., 2004). Action oriented, long-term future oriented language generally connotes proactivity. However, the caution by Narver et al. (2004) that proactive is not to be confused with energetic and aggressive goal seeking as applicable to individuals, must be kept in mind. Scholars agree, particularly in market orientation research, that addressing latent, undiscovered needs is important (Deshpande et al., 1993; Jaworski & Kohli, 1993).

In addition to assembling major studies for determining the construct domain, additional summaries of studies were assembled to review sample frames and actual scales developed. Appendix 1 provides the comprehensive literature survey for extant market orientation related studies that helped inform this study. As evident, the studies subsequent to work by Narver and Slater. (1990) and Kohli et al. (1993) built on the earlier work resulting in refinement and confirmation of the original constructs for market orientation and components. Of the ten studies shown in Appendix 1, five were based on surveys of marketing executives and obtained responses from strategic business units (SBUs) within larger corporations. Sample sizes ranged from 82 to 800 respondents. However, sample sizes were predominantly in the 150 to 300 respondents range. Similarly, the major studies related to stakeholder orientation were identified as shown in Appendix 2. Five of the nine studies used proxy data from public companies; these studies focused more on how such issues as corporate reputation and environmental
concerns related to corporate performance. Four of the studies were related more closely to the essential stakeholders as researched by Yau et al. (2007).

The basis for generating items within both responsive and proactive stakeholder orientation scales is elaborated for reference and background. Churchill (1979) and Hinkin (1998) advocate the importance of maximum input from extant literature in developing items for measurement and relevant scales. Appendix 3 presents all the major scale development work used in this study. The original scales and measures developed by Narver and Slater (1990), Kohli et al. (1993) and Deshpande and Farley (1998) have remained the major foundational scales in market orientation. Updates by Matsuno et al. (2005) and more recently by Blocker, Flint, Myers and Slater (2011) are also useful references. The work by Yau et al. (2007) and Narver et al. (2004) together with more recent developments in competitor and employee orientation is synthesized and incorporated (Sorensen, 2009; Zhang, 2010). For example, Sorensen (2009) added items related to closer monitoring of competitors including their strategic directions and dissemination of competitor information within the firm. Similarly, Zhang (2010) added measures related to work climate, organizational procedures, and management philosophy for employee orientation. These additions provide a more complete assessment of the relevant constructs.

An initial item pool was generated based on the extant scales. Further items were added to reflect recent developments in social media and innovation practice. Thirteen qualitative interviews were then conducted with marketing and strategic management scholars, practitioners, entrepreneurs, bankers, accountants and senior management staff. Respondents were asked to comment on relevance and clarity of the items generated.
Suggestions for additions to the item list and emphasis of what they felt important were solicited. A summary of participants and comments received is shown in Exhibit 4.4. Care was taken to elicit open-ended discussion and not overwhelm participants with the research agenda. The commentary was used to clarify, simplify and add or delete items in order to prepare a preliminary survey. Notable commentary and suggestions built into the survey were as follows:

- The Internet and web based social media such as Facebook are being increasingly used to provide a rapid interactive communications and branding tool. Items to address this were added.

- Employee incentives are seen as valuable. The ability to reward and promote high performers was suggested as important. Trust building and training programs for employees also were suggested.

- Total customer satisfaction and experience in products and services was emphasized by practitioners as differentiators relative to competition.

- Top management team focus and emphasis for research and innovation as well as organizational climate were commented on. One valuable input from a vice-president of a Fortune 500 company was that competitor and innovation research was a routine activity with reports being provided to management on a weekly basis.

The iterative procedure was followed for each essential stakeholder group. Since each stakeholder group to be studied represents distinct considerations, further background and details need discussion. Each of the stakeholder groups and specific
issues related to measuring orientation within the subgroup is presented in the following sections. For reference, Appendix 4 provides item details for each of the stakeholder groups as used in the pilot test 1 survey, which is discussed further in later sections.

Exhibit 4.4 – Summary of Participants and Comments Received (Informal Interviews)

<table>
<thead>
<tr>
<th>Participants</th>
<th>1 – Public company; 3 – Family holding company; 3 – Community bank CEOs 1 – CPA; 5 – Middle and VP-level managers including 1 from a Fortune 500 company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview Prompts</td>
<td>Selected Answers to Interview Prompts</td>
</tr>
<tr>
<td>● How do you view your stakeholders?</td>
<td>● We try to build trusting relationships with all our stakeholders. Relationships are key.</td>
</tr>
<tr>
<td>● What are their needs?</td>
<td>● Our managers understand the need to provide highest customer satisfaction.</td>
</tr>
<tr>
<td>● How does your management team view stakeholders and their needs?</td>
<td>● We feel communications and transparency help build relationships.</td>
</tr>
<tr>
<td>● What does the company do to keep up with these stakeholders?</td>
<td>● We meet with our important customers informally. We encourage team meetings and employee events.</td>
</tr>
<tr>
<td>● How do you go about getting feedback?</td>
<td>● We reward our employees well and consider paying bonuses in excess of base salaries for high performers.</td>
</tr>
<tr>
<td>● How do you balance stakeholder needs and demands?</td>
<td>● We follow competitors and respond on price and service if needed.</td>
</tr>
<tr>
<td>● Do you try to anticipate and discover needs of your customers, shareholders, and employees? If so, how?</td>
<td>● We want to stay ahead of competition.</td>
</tr>
<tr>
<td>● Do you track competition and stay ahead of them?</td>
<td>● We like to use technology to save on costs.</td>
</tr>
<tr>
<td>● What are your thoughts on innovation?</td>
<td>● We try to introduce better products and services in our dealings with customers.</td>
</tr>
<tr>
<td>● Which of the stakeholders are important?</td>
<td>● Customers are most important to us and employees are the best way to serve them. Employee loyalty is necessary.</td>
</tr>
<tr>
<td>● Are all stakeholders equally important or is one group more important than another; are investors more important than employees, for example?</td>
<td>● Shareholders are important but not more than customers or others such as employees.</td>
</tr>
</tbody>
</table>
**Customer Orientation**

Firms must understand and serve customers through monitoring customer feedback and their perception of superior value. Relevant concepts were previously captured and validated by Narver and Slater (1990) and Kohli and Jaworski (1990). The scale proposed for this study must therefore capture similar customer facing data for action.

In developing the responsive and proactive market orientation scales, Narver et al. (2004) used the market orientation scale developed by Deshpande and Farley (1998). The rationale was that Deshpande and Farley had factor-analyzed the three most widely used scales and found a 10-item MORTN (term for market orientation as adopted by Deshpande & Farley, 1998) scale that represented the best synthesis of the 44 items included in the scales (Deshpande & Farley, 1998; Deshpande et al., 1993; Jaworski & Kohli, 1993; Narver & Slater, 1990). A useful characteristic of the work by Narver et al. (2004) is that the 10-item MORTN scale was customer facing in its entirety (the MORTN scale is shown in Appendix 3). The MORTN scale designated the responsive market orientation scale for this study, included items addressing understanding of customer needs, customer satisfaction, and providing superior quality and service. While the analysis by Narver et al. (2004) suggested a reduction of the MORTN scale to seven items, the 10 items were retained in this research and analyzed with a more recent sample. Moreover, following suggestions by Narver et al. (2004) the concepts of proactive customer orientation were developed by introducing the concepts of forward planning, focus on developing and sharing information beyond customer expressed needs, and the action orientation which proactivity implies. The Blocker et al. (2011) study was particularly helpful in providing recent empirical support for proactive
concepts related to the customer. Specifically, the emphasis on offering new ideas and solutions for which the customer has not yet articulated a need or desire, provided support for presenting new products and services to the customer. The items for customer orientation used in the initial survey are shown in Appendix 4 – responsive and proactive customer orientation sections.

The iterative refinement with the expert and practitioner panels suggested 12 responsive customer orientation items and 12 proactive customer items. The items eliminated some double-barreled questions and complexity in extant surveys. For example, where the MORTN scale sought response to ‘we constantly monitor our level of commitment and orientation to serving customer needs,’ the question was reduced to simply asking for the level of commitment to customer needs. The discussion suggested that the question was double barreled and unclear since orientation is more academic in tenor. The concept of commitment adequately captures the sentiment sought. Another example, the technical word ‘extrapolate’ was replaced with ‘forecast trends’ in the proactive item seeking to identify future customer needs. Further, instead of ‘gaining insights’ the term ‘to determine’ future needs was used. In addition, items related to social media and web based communication tools were included. On the responsive scales, emphasis on new products and tests with focus on discovering and serving latent customer needs was integrated. As suggested by Hinkin (1998), the initial compilations erred on the side of too many items subject to scale purification to be carried out. On balance, the spirit of the validated scales was retained with diligent effort to simplify and eliminate ambiguity.
Competitor Orientation

Competitors represent both a threat and an opportunity to the company and should be given balanced versus excessive attention in a win-lose game set-up (Sorensen, 2009). The principles related to competitors are almost axiomatic. Too much focus on market share versus competition, for example, can result in lower margins and lack of profits (Armstrong & Collopy, 1996). On the other hand, failure to anticipate competitor actions or to exploit windows of opportunity can result in lost revenues (Sorensen, 2009).

Competitors need to be monitored, therefore, for both potential threats and opportunities, but in a balanced manner so as not to fail to serve customers (Narver & Slater, 1990; Slater & Narver, 1994a). In fact, a recent study involving airlines and market share found that the better a focal firm’s understanding of its competitors’ priorities, the better the focal firm defended or took advantage of opportunities that resulted in relative market share gain (Tsai, Su, & Chen, 2011). The dimension, related to ‘competitor acumen,’ suggested the importance of tracking and developing a sound understanding of the competitor and, in fact, the competitor’s view of the industry and competitive threats.

Items were included that address tracking of competitors and developing an understanding of competitor assumptions about industry trends (Tsai et al., 2011).

Yau et al. (2007) adapted the competitor orientation scale from Narver and Slater (1990). For the current study the scale items for competitor orientation will be adapted from two more recent studies by Narver and Slater (1990) and Atuahene-Gima et al. (2005), as suggested by Sorensen (2009). The Sorensen (2009) synthesized scale retains much of the original tenor Narver and Slater (1990) suggested, but is updated with additional items that incorporate more process variables, such as tracking competitor performance and identifying opportunities that are non-threatening to competitors. The
eleven items suggested by Sorensen (2009) in his synthesis were used as a basis to track competitor orientation. See Appendix 4 for scale items used. The existing Sorensen (2009) scale was designated as largely responsive in the current study. Proactivity measures require action orientation, seeking latent trends and sharing and processing information for forward planning on a regular basis. For example, some companies are known to create teams specifically to analyze products and services by reverse engineering competitive offerings (Reed & DeFillippi, 1990; Savage-Knopshield, 2008). Top management focus on competitive issues is seen as a proactive driver, so items related to this aspect are also included (Ireland & Hitt, 2005). These are among the aspects incorporated in items generated for proactive competitor orientation as shown in Appendix 4. The number of responsive and proactive competitor items generated for the pilot 1 survey was 9 and 10, respectively.

**Employee Orientation**

The scale items as proposed by Yau et al. (2007) based on Narver and Slater (1990) were modified as suggested by Zhang (2010). The items included in the proposed scale provide a more comprehensive assessment of key aspects of employee orientation compared to Yau et al. (2007). The proposed items recognize employees are the front line for market-sensing activities. The ability to share and act upon market intelligence in a creative manner can stimulate innovation and improve customer orientation (Delaney & Huselid, 1996; Lings & Greenley, 2005; Plakoyiannaki, Tzokas, Dimitratos, & Saren, 2008; Zhang, 2010).

Research has shown that low stress and a high trust organizational climate for employees promotes better performance and interfacing with customers (Babin et al.,
The importance of a learning organization with knowledge sharing has been shown to improve innovative behavior. A learning organization has an employee focus in matters such as training and perceived relations with the organization. The promotion of a supportive and warm climate improves teamwork, work satisfaction and work performance (Baker & Sinkula, 1999; Hult et al., 2004; Janz & Prasarnphanich, 2003). In sum, the above suggests that items generated for research need to measure aspects of organizational climate, training, information sharing and management attitudes as well as perceived fairness in appraisals and promotion opportunities.

The items selected by Zhang (2010) based on Janz et al. (2003) capture the above aspects and provide a good base to determine a generally responsive orientation composed of 8 items for pilot test 1. As before, the proactive employee orientation scale incorporates the elements of proactive stance composed of 13 items, and is presented in Appendix 4. Many of the proactive items relate to training, incentives and preemptive implementation of practices that could lead to higher employee productivity.

**Shareholder Orientation**

Shareholders provide capital and are part of an extended network of influencers, particularly in the case of institutions and banks with fiscal power (Brennan & Tamarowski, 2000). Thus, they must be an important factor in stakeholder orientation. For this construct the Yau et al. (2007) scale is retained intact and a proactive shareholder scale is added as shown in Appendix 4. Investor relations departments are a manifestation of improving and maintaining shareholder relations, thus items are included to capture this aspect adequately. The items suggested also attempt to ask for more comprehensive forward looking communications on strategies and policies beyond purely financial and
accounting type measures, as dictated by good investor relations (Brennan & Tamarowski, 2000; Dolphin, 2004). Proactive shareholder orientation would require more preemptive valuation benchmarking relative to competitors. Provision of information and communications merely reactive to shareholder concerns is a limited facet. The proactive orientation items incorporate these aspects with web based assisting systems included. For pilot study 1 the number of responsive and proactive shareholder items was 6 and 9, respectively.

**Innovation Orientation**

As discussed previously, it has been suggested that innovation and sustained competitive advantage can result from the need to address a broad set of stakeholders who represent key resources affecting the firm. Innovation likely would be reflected in better overall firm performance (Baker & Sinkula, 2009; Newbert, 2008). Following Narver et al. (2004) a positive correlation between innovation orientation, firm performance and both proactive and responsive stakeholder orientation is expected. The scale for innovation orientation is adapted from Narver et al. (2004) who based their scale on Deshpande et al. (1993). Innovation orientation addresses the level of innovativeness relative to competitors in general. It is regarded as an inside-out process, which is complementary to the outside-in process represented by market orientation (Day, 1994). Where much of innovation orientation represents mainly processes within the company to generate products and services with new features, market orientation for customers and competitors focuses on activity related to players outside the company (Day, 1994). The distinction is important to the extent that internal processes are more controllable. Elements of top management emphasis, early integration of new technologies, incentive
and recognition systems, and information dissemination are all built into the 12-item scale developed for pilot study 1. It is notable that a comprehensive scale with this level of granularity within a single scale was not identified in the literature.

The aspect of formative or reflective nature of the scale items needs to be evaluated. Model specification can be sensitive to these aspects as suggested by Hair et al. (2010) and Diamantopoulos, Riefler, & Ross (2008). These questions are discussed in the next section.

**Initial Item Pool – Formative and Reflective Considerations**

The initial questionnaire adapted items from existing scales to simplify language in some cases, to add clarity regarding whether the item should be modeled as formative or reflective in accordance with recent suggestions (Diamantopoulos, Riefler, & Ross, 2008), and to incorporate questions related to social media and use of the internet to accommodate recent developments (Lee & Grewal, 2004).

The essence of formative measures is that causality flows from the measures to the latent construct. While any detailed consideration of formative versus reflective modeling is well beyond the scope of this study, it should be noted that top management is primarily and conceptually oriented in a particular way and that results in the climate and processes within the company that reflect top management’s perspectives (Diamantopoulos, 2010; Roberts & Thatcher, 2009). Several criteria have been proposed as guidelines as to whether constructs should be modeled as reflective or formative (Coltman, Devinney, Midgley, & Venaik, 2008). The criteria for reflectively modeled constructs include (1) indicators share a common theme, (2) variation in causation is from
construct to indicators, (3) indicators should have high positive intercorrelations, (4) indicators should have similar sign and significance of relationships with the antecedents/consequences as the construct, and (5) error term of items can be identified. A preliminary assessment of the indicators/items proposed for the independent variable scales indicated the constructs met the first two criteria for reflectively modeled constructs. The third, fourth and fifth criteria must be assessed empirically. Therefore, the independent variable constructs initially were modeled for this study as reflective. The last three criteria will be assessed in the pilot study and if no inconsistencies are observed, it will be concluded that the constructs were correctly modeled as reflective. The reflective-formative dichotomy is complex and somewhat dependent on semantics as well as research focus. It is therefore possible that if an approach to developing constructs is different from the current study, then an alternative measurement approach might be necessary (Bollen, 2011).

Reflective measures are a consequence of or caused by the latent construct. In the model proposed here, the dependent variable measures of firm performance and innovation orientation are formulated as reflective. As conceptualized, the model suggests that firm performance and innovation orientation will reflect the responsive and proactive stakeholder orientations. Moreover, by definition endogenous variables, in this case firm performance and innovation orientation, must be measured by reflective items (Coltman et al., 2008; Diamantopoulos, 2010; Diamantopoulos et al., 2008). Care was exercised in item specification to ensure that measures are viewed as a reflection of innovation orientation or firm performance. The logic is that, for example, financial performance measures are a subset derived from perceptions of overall firm performance.
Scale Purification – Pilot Tests and Exploratory Factor Analysis (EFA)

The initial item pool was generated and pretested with academics and practitioners. Given the lack of precedent with respect to proactive dimensions, a strategy of running two pilot tests with a minimum of 200 respondents for each was implemented, a practice which has been adopted by others in this type of research (Matsuno et al., 2000). A large number of responsive and proactive dimension items were included in the initial item pool. The expectation was that lower loadings and cross-loadings would emerge in the first pilot study. The second pilot study would help to establish the highest loadings, allowing judgments to be made for a more parsimonious scale for the final survey.

A professional panel was available from a prominent online survey research firm (Qualtrics), and this panel represented the sample frame for the empirical survey data in this study. Prior to the actual launch of the first pilot study, the questionnaire was discussed item by item in a pretest with domain experts, CEOs, entrepreneurs and management staff. While the feedback was provided on an informal basis, it was established that the survey was easy to complete and the items were clear and interesting. The visual format was selected from tested designs provided by the survey firm. The response capability by way of electronic slider (graphic ratings) scales with variations using Likert-type scales and a variety of scale end-points were favorably evaluated in the pretest.

Some respondents thought a few scale items were redundant, but this was deliberate in order to select which wording was the most effective. All informal feedback was positive as to subject matter and relevance to the practitioners. The consensus was
that a balanced approach to all stakeholders was necessary even if in many cases shareholder concerns might be more dominant. Bankers in particular felt that being competitive rested on employees who drove customer relationships and innovation in services – since product differentiation was limited – ‘checking accounts are checking accounts.’ All practitioners felt customer focus and customer satisfaction were important, especially relative to competition.

**Pilot Test 1 – Sample Frame and EFA**

Exhibit 4.5 on the next page provides a profile of respondents from pilot test survey 1. The sample frame requirement was to ensure responses from companies with 30 or more employees. The floor level was established to ensure meaningful organizational concerns would be reflected versus those more associated with mom and pop type businesses. Responses were also required to be VP level or above with C-level (chief officer for a particular area within the company, such as information systems, sales, marketing, and so on) and other executive levels distinguished. A total of 203 respondents provided data. Just over half of reporting firms (54%) were SMEs (500 or fewer employees). Manufacturing companies were predominant at 39 percent, with the next largest single industry category being information technology firms at 14 percent. A total of 93 percent of respondent firms were 10 years or older. C-level and above respondents were 67 percent, with 58 percent having general management responsibilities. Tenure of the executives was 45 percent in the 5 to 10 year range, and another 37 percent with the firm more than 10 years. Further, the mix of private and public firms was 61 percent private and 39 percent public. As evident, responses were obtained from a broad cross-section of firms in the U.S.
Exploratory factor analysis was carried out on the survey data, using principal components and varimax rotation. The initial number of items for each construct in pilot survey 1 is summarized in Exhibit 4.6.

**Exhibit 4.5 – Sample Data Profile – Pilot 1**

<table>
<thead>
<tr>
<th>Respondent Data</th>
<th>Company Information</th>
</tr>
</thead>
<tbody>
<tr>
<td># of respondents</td>
<td>203</td>
</tr>
<tr>
<td><strong>Management Position</strong></td>
<td></td>
</tr>
<tr>
<td>CEO/Other C-level</td>
<td>67% Private company</td>
</tr>
<tr>
<td>Other Executive</td>
<td>12% Public company</td>
</tr>
<tr>
<td>V.P. or above</td>
<td>22% &lt;=100</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Not requested</td>
</tr>
<tr>
<td>Female</td>
<td>Not requested</td>
</tr>
<tr>
<td><strong>Primary Functional Area</strong></td>
<td></td>
</tr>
<tr>
<td>General management</td>
<td>58% &gt;10 &lt;=50</td>
</tr>
<tr>
<td>Finance &amp; administration</td>
<td>11% &gt;50</td>
</tr>
<tr>
<td>Marketing / Operations / R&amp;D</td>
<td>16% Primary business category</td>
</tr>
<tr>
<td>HR/Other</td>
<td>15% Manufacturing</td>
</tr>
<tr>
<td><strong>Years with firm</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;5 years</td>
<td>17% Financial &amp; Related</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>45% Wholesale / Retail</td>
</tr>
<tr>
<td>&gt;10 years</td>
<td>37% Consulting &amp; Services</td>
</tr>
<tr>
<td></td>
<td>Health care / Construction / Other</td>
</tr>
</tbody>
</table>

**Exhibit 4.6 – Summary of Items and Latent Constructs in Pilot 1**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Responsive – Number of items</th>
<th>Proactive – Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Orientation</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Competitor Orientation</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Employee Orientation</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Shareholder Orientation</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total # of Items (80 overall)</strong></td>
<td>36</td>
<td>44</td>
</tr>
</tbody>
</table>

The planned number of data points with 200 respondents relative to the 80 items for stakeholder orientation was minimally adequate for the EFA since a minimum of 5
respondents per item is generally recommended (Hair et al., 2010). Given the large number of items and multiple constructs surveyed, the expectation for the first pilot study was exploratory and to provide indications of the underlying factor structure and items loading strongly. With weak loadings and cross-loadings eliminated and items reworded to clarify, the objective of the first pilot study was to facilitate a second pilot study with a smaller number of refined and improved items.

Exploratory factor analysis (EFA) is a detailed process with both analysis and judgment required for meaningful results. Hair et al. (2010) outline a series of steps for an effective EFA. In this sample frame, the Kaiser-Meyer-Olkin (KMO) and Bartlett’s tests both provide highly acceptable indications of factorability. The KMO at 0.98 and a Bartlett’s of 19660 at the 0.000 level of significance provide evidence of sufficient multicollinearity to justify the use of EFA. A minimal amount of multicollinearity is indicative of convergence among items, thus supporting emergence of underlying factors. In addition, the communalities range from a low of 0.68 to a high of 0.84, with most exceeding 0.7. An inspection of the individual measures of sampling adequacy (MSA) similarly confirmed the factorability of the data. The overall MSA exceeds 0.8, considered ‘meritorious’, and individual item MSAs all exceeded 0.50 which is considered a minimum (Hair et al., 2010). These indicators were positive and indicative of underlying factors. Much of the item wording was new, and untested items were numerous, the initial indications of factorability were encouraging.

An initial factor analysis based on principal components, varimax orthogonal rotation, and eigenvalues greater than 1, yielded a 10-factor solution. The initial solution revealed a number of cross-loads for all factors with the exception of shareholder
orientation. In order to avoid confusing cross-loads and overall low loading items, a suppression level of 0.5 for loadings was chosen, since total variance explained was in the acceptable range after applying the suppression (Hair et al., 2010). Accordingly, further inspection of the rotated solution after eliminating cross-loads and suppressing loads less than 0.5 led to a five-factor solution accounting for a total variance explained (TVE) of almost 70 percent. The five-factor solution is summarized in Exhibit 4.7 and detailed in Appendix 5.

**Exhibit 4.7 – Summary of Pilot 1 Exploratory Factor Analysis – 5-Factor Solution**

<table>
<thead>
<tr>
<th>Pilot 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong># of factors</strong></td>
</tr>
<tr>
<td><strong># of items retained</strong></td>
</tr>
<tr>
<td><strong>Total Variance Explained (TVE)/ Scale Alpha – all items</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Shareholder Orientation: combined proactive and responsive</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Responsive Customer Orientation</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Competitor Orientation</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Employee Orientation</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Proactive Customer Orientation</strong></td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>
As can be seen in Exhibit 4.7, the five-factor solution produced an uneven number of proactive and responsive items, and suggested further review and refinement. While the results are at an exploratory stage, the high overall scale alpha of 0.98 indicates an unusually high correlation among all items. The content validity and expert panels both suggest that items are meaningfully distinct; therefore the high alpha is deemed acceptable (Hair et al., 2010). Shareholder orientation with 17.13 percent of total variance explained had 15 items with a mix of responsive and proactive shareholder items. With loadings generally exceeding 0.7, the items appear relevant to respondents. The next factor with 15 percent of variance explained is a mix of 11 responsive customer items with a few responsive employee items interspersed. Some of the employee items were loading on the customer factor, and this was considered somewhat logical since employee well-being and customer service are related. The conclusion was that some of the items would need rewording and/or re-categorization. To the extent the employee orientation results in derivative customer service, possible re-categorization was considered acceptable. Competitor orientation was also a mix of both responsive and proactive items (16) and explained 14 percent of total variance. The next factor was largely composed of proactive employee orientation items (10) and explained 13 percent of total variance. Finally, proactive customer orientation items also emerged as a standalone factor with 11 items explaining 9 percent of total variance. The level of variance explained is both relative to total variance explained and variance explained relative to other factors. In this case, the individual factor variances ranged from 9 percent to 17 percent, contributing to a total variance explained of 68 percent, considered satisfactory (Hair et al., 2010).
While encouraging, pilot study 1 did not result in a clear-cut distinction between responsive and proactive factors for all stakeholders, although customer orientation did separate into responsive and proactive dimensions. The results of the EFA suggest, therefore, that with shareholders, employees and competitors, proactive and responsive dimensions do not emerge as differentiated. It is worth noting that the Narver et al. (2004) study found the responsive and proactive market orientation dimensions as distinct within both a limited sample frame and only seven and eight items for the responsive and proactive market orientations respectively. The sample frame here is much larger and the total number of 80 items involves a level of complexity and potential interactive effects. Thus, aside from customer orientation found by Blocker et al. (2011), no indication that a conjectured potential break for each of the orientations into responsive and proactive splits was evident. The explanation for this may be that managers do not differentiate activities into separate proactive and responsive processes – rather, they see good management as incorporating both types of activities. However, with respect to customers, the differentiation is clear because being proactive demands new products and services and forward-looking plans for customers. The concept of ambidexterity wherein management efficiently integrates potentially different activities, responsive and proactive in this case, for the sake of efficiency may also provide an explanation (Raisch & Birkinshaw, 2008). On balance then, the items retained from the EFA (total of 63) loaded highly – generally well above the 0.5 threshold level – and resulted in distinction of responsive and proactive dimensions only for customers. More importantly, however, the number of items with large loadings and without cross-loads
provided a direction for the second pilot study. Relevant aspects of item eliminations, rewording and refinement of visual design are discussed further in the next section.

In addition to the core stakeholder orientation constructs, the dependent variables innovation orientation and firm performance also were examined for factor structure in the first pilot study. Unidimensionality for the innovation and firm performance items was evident. Exhibit 4.8 summarizes the results obtained. The unidimensionality for innovation orientation with all 12 items loading in the 0.74 to 0.89 range and a Cronbach’s alpha of 0.96 suggested no changes were needed for the second pilot study. Similarly, firm performance exhibited strong item loadings ranging from 0.84 to 0.91, and a Cronbach’s alpha of 0.94, indicating unidimensionality of this construct.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Items loaded and total variance explained</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation orientation – direct and mediator construct</td>
<td>All 12 items proposed Loading range 0.74 to 0.89 TVE – 71% Cronbach’s alpha – 0.96</td>
<td>No changes indicated for pilot study 2</td>
</tr>
<tr>
<td>Firm Performance – dependent variable</td>
<td>All 6 items – 4 financial, 2 non-financial Loading range 0.84 to 0.91 TVE – 77% Cronbach’s alpha – 0.94</td>
<td>No changes indicated for pilot study 2</td>
</tr>
</tbody>
</table>

In sum, pilot study 1 exhibited unidimensionality and reliability for five independent variable factors. The theory-based proposition that proactive consideration would play an important role was supported only with respect to customer orientation.
The role of proactive considerations for the other stakeholders is also important but does not result in distinct proactive versus responsive components. The proactive designed questions were predominant for shareholders (9 proactive and 6 responsive) and employees (10 proactive and 2 responsive). For competitors the proactive components were equal to the responsive (8 proactive and 8 responsive). Unidimensionality and high reliability were also demonstrated in the first pilot study for innovation orientation and firm performance. The content validity was demonstrated by the high loadings of relevant items and provides an initial indication that the iterative processes based on expert panels, extant literature, and practitioners were productive.

**Pilot Test 2 and EFA**

In determining the scale items to retain for pilot study 2, the objective was to clarify scale items wherever possible and to be open to recategorization on a limited basis, if supported by content review. Scale development is an iterative process and needs to integrate qualitative and quantitative data, if supported by theory. In this case the concept of stakeholder orientations is well supported; however, at least in pilot study 1, executives did distinguish proactive dimensions except with customers. Therefore, in designing the survey for pilot study 2 the items with high loads were largely retained. Cross-loads were retained if the separation in loading was at least 0.1 or higher. Wherever possible, items were sharpened to distinguish proactive action oriented concepts from responsive to include action and forward planning emphasis. Appendix 6 catalogs the eliminations and rewordings, based on subject matter and expert review, as well as discussions with practitioners. From the original 80 items in pilot study 1, the items for the core constructs in pilot study 2 were reduced to 61. The reduced number of
items eliminated redundancies and clarified constructs. A more parsimonious scale allows the respondent to focus better on the concepts. In addition, the design of pilot study 2 maximizes feedback prior to further scale purification, so the bias favors item retention.

The major thrust in revising the items was to clarify wording and add more action oriented, forward looking concepts to find if more proactive distinctions among factors might be evident. For example, the proactive competitor item ‘We often gather comparative information about our competitors to plan superior return for our shareholders,’ was modified to ‘We gather market performance information to plan for improved shareholder value.’ The revision shortened and clarified focus to specific improved shareholder value. Another example, a reverse coded question on employee orientation ‘You don’t get much sympathy from management in this organization if you make a mistake’ was eliminated. The question cross-loaded on shareholder orientation as a single item on its own, and also had a weak loading. Although it was part of a validated employee orientation scale created by Zhang and Duan (2010), it was eliminated. The innovation orientation and firm performance items worked well in the first pilot study, so no changes were introduced in pilot study 2 for these two constructs. The survey for pilot study 2 including coding is provided in Appendix 7.

A total of 204 responses were obtained in pilot study 2. The data sample profile is provided on the following page in exhibit 4.9. As in pilot study 1, the sample frame was limited to firms with 30 or more employees and management level of vice-president and above. CEO and C-level executives were 67 percent of respondents while other executive and vice-president and above represented 33 percent. Again, as in pilot study 1, about 45
percent of respondents had been with the firm between 5 and 10 years with 54 percent involved in general management functions. SMEs constituted 53 percent of the responses. Private companies were 54 percent versus 46 percent public. Firms were mostly (67%) between 10 and 50 years in age. Manufacturing firms represented 36 percent of responders versus 39 percent in pilot study 1. In general, the profiles for pilot studies 1 and 2 were remarkably similar. A gap of three months separated the two pilot studies. On this basis, no undue respondent bias is apparent.

**Exhibit 4.9 – Sample Data Profile – Pilot 2**

<table>
<thead>
<tr>
<th>Respondent Data</th>
<th>Company Information</th>
</tr>
</thead>
<tbody>
<tr>
<td># of respondents</td>
<td>204</td>
</tr>
<tr>
<td>Management Position</td>
<td></td>
</tr>
<tr>
<td>CEO/Other C-level</td>
<td>Private company</td>
</tr>
<tr>
<td>Other Executive</td>
<td>Public company</td>
</tr>
<tr>
<td>V.P. or above</td>
<td>&lt;=100</td>
</tr>
<tr>
<td>Gender</td>
<td>&gt;100 &lt;=500</td>
</tr>
<tr>
<td>Male</td>
<td>&gt;500</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Firm size by employees</td>
<td>17%</td>
</tr>
<tr>
<td>Primary Functional Area</td>
<td></td>
</tr>
<tr>
<td>General management</td>
<td>54%</td>
</tr>
<tr>
<td>Finance and administration</td>
<td>&gt;10 &lt;=50</td>
</tr>
<tr>
<td>Marketing / Operations / R&amp;D</td>
<td>&gt;50</td>
</tr>
<tr>
<td>HR/Other</td>
<td></td>
</tr>
<tr>
<td>Years with firm</td>
<td>36%</td>
</tr>
<tr>
<td>Information technology &amp; services</td>
<td></td>
</tr>
<tr>
<td>Financial and related</td>
<td>9%</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td></td>
</tr>
<tr>
<td>Consulting &amp; services</td>
<td></td>
</tr>
<tr>
<td>Health Care / Construction / Other</td>
<td></td>
</tr>
</tbody>
</table>

The exploratory factor analysis for pilot study 2 was similar to the procedures used in pilot study 1. Based on principal components analysis, varimax orthogonal
A more parsimonious 47-item (compared to 77 items in Pilot 1) four-factor solution emerged with responsive customer and competitor items emerging as a construct similar to the market orientation scale of Deshpande & Farley (1998) in their synthesis of three scales developed by Narver and Slater (1990), Kohli et al. (1993), and Deshpande et al. (1993). The factors related to shareholder orientation, employee orientation and
proactive customer orientation had item loadings well in excess of 0.5 and were meaningful (Hair et al., 2010). Overall scale alpha of 0.98, logical and meaningful factor loadings patterns, and total variance explained of 73 percent demonstrated reliability and content validity. In examining the market orientation factor that emerged in pilot study 2, the responsive customer and competitor items were evident. The judgment calls in proceeding to a confirmatory factor analysis are discussed in detail later, but it was evident that robust results from pilot studies 1 and 2 would need to be considered together.

As with pilot study 1, the innovation orientation and firm performance factors remained unidimensional with strong item loadings and total variance explained as summarized in Exhibit 4.11. Pilot study 2 also resulted in a more parsimonious item structure that was consistent with pilot study 1 except for the combination of customer and competitor responsive items into a single market orientation factor. The innovation and firm performance scales remained very similar in the two pilot studies. The implications of the two sequential pilot studies for the confirmatory phase of the study are discussed in further detail next, as are the hypotheses synthesized based on theory and the pilot studies.

Exhibit 4.11 – Innovation Orientation and Firm Performance – Pilot 2 Summary

<table>
<thead>
<tr>
<th>Variable</th>
<th>Items loaded and total variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation orientation – direct and mediator construct</td>
<td>Unidimensional – All 12 items proposed</td>
</tr>
<tr>
<td></td>
<td>Loading range – 0.72 to 0.89</td>
</tr>
<tr>
<td></td>
<td>TVE – 72%</td>
</tr>
<tr>
<td></td>
<td>Cronbach’s alpha – 0.96</td>
</tr>
<tr>
<td>Firm Performance – dependent variable</td>
<td>Unidimensional – All 6 items – 4 financial, 2 non-financial</td>
</tr>
<tr>
<td></td>
<td>Loading range – 0.82 to 0.90</td>
</tr>
<tr>
<td></td>
<td>TVE – 72%</td>
</tr>
<tr>
<td></td>
<td>Cronbach’s alpha – 0.92</td>
</tr>
</tbody>
</table>
In summary, both pilot studies indicate proactive considerations as important to essential stakeholder orientation. But there was a clear distinction with regard to proactive orientation only with the customer orientation construct. Based on the EFA analyses, as well as a prior study (Yau et al., 2007), the possibility of an extended stakeholder orientation construct was suggested. Finally, pilot studies 1 and 2 both confirmed innovation orientation as a single construct consisting of 12 items (see Exhibits 4.8 & 4.11), and firm performance consistently emerged as well as a single construct consisting of six items.

In the next chapter, the content and design of the final survey for the requisite confirmatory factor analysis are elaborated. The need for parsimony and integrating the factors emerging from the two pilot studies while retaining the best possible total variance explained and remaining within the theoretical framework informed the approach taken.
Chapter 5: SCALE VALIDATION AND CONFIRMATORY FACTOR ANALYSIS

The two pilot studies and subsequent analysis of content based on underlying theory form the basis for the confirmatory factor analysis. Hair et al. (2010) point out that the purpose of EFA is to explore underlying factors and content. In contrast, confirmatory factor analysis seeks to validate and confirm the theorized factor structure with empirical data distinct from the data used in the exploratory analysis. The process involves comparisons with preceding factor structures and assessment of theorized factors with intent being to establish confidence in the proposed scales.

Narver et al. (2004) and Blocker et al. (2011) both suggested that proactive dimensions would be evident for customer and market orientation. Yau et al. (2007) and Greenley et al. (2005) suggested that stakeholder orientation is a measurable unidimensional construct composed of the essential stakeholders. Previous studies have shown that market orientation should be positively correlated to innovation and firm performance. Scholars have suggested that expanding market orientation to include additional stakeholders would result in better explanation of firm performance and other linked dimensions (Ferrell et al., 2010; Kirca et al., 2005; Matsuno et al., 2005). The exploratory factor analyses provided evidence of selected proactive components, high overall scale reliability, and content validity. The next steps to test hypotheses as
developed within the theoretical framework and supported by the exploratory factor analysis require an independent sample to be collected and subjected to analysis

Main Study Design and Data Collection

Completion of the main study required that data be collected from another unique sample. The final questionnaire design and items included were based on expert judgment using the findings of pilot studies 1 and 2. Parsimony in the number of items included in the survey is recommended since SEM models are sensitive to the number of observed variables and need a solvable or identified model to provide solutions (Byrne, 2010; Hair et al., 2010; Hinkin, 1998). In developing the final questionnaire, the eight items with the largest loadings from each of the factors identified in pilot study 2 were chosen. For shareholder orientation, the social media item was retained to examine this emerging area. The total variance explained for the 30 retained items representing all of the constructs (factors) in pilot study 2 was 77 percent compared to 73 percent for all 47 items in the survey, providing support for a more parsimonious approach for the main study.

Integrating the factors emerging from pilot studies 1 and 2 is an important step. Clarification is needed for how the market orientation factor in pilot study 2, i.e. combined customer and competitor orientation in line with Deshpande & Farley (1998) which was not evident in pilot study 1, should be addressed. For the market orientation factor, the top eight items that emerged in pilot study 2 were composed of three responsive customer and five responsive competitor orientations. Based on the theoretical framework and the indications from pilot study 1 that a responsive customer orientation
factor was evident, the three responsive customer and five responsive competitor orientation items were regarded as separate factors for the purpose of confirmatory analysis. The confirmatory factor analysis tests the theorized factors, thus the logical separation of evident factors based on item content and Pilot 1 analysis was implemented for the confirmatory analysis. The proactive customer orientation was retained intact with five items evident in pilot study 2. A social media item was added to the shareholder orientation construct for a total of 30 items as the core constructs related to the essential shareholders. The innovation orientation construct with 12 items and the six-item financial performance construct were retained intact since they were reliable and stable in both pilot studies. The final questionnaire with coding is shown in Appendix 9.

From a design point of view, the use of multiple variations of graphic ratings scales was implemented to reduce common methods bias; the rating scales include endpoints varying from ‘strongly disagree’ to ‘strongly agree’ and a range in scale length from 0 to 10 on some questions and 0 to 100 on other questions (Hair et al., 2010; Podsakoff, MacKenzie, Lee, & Podsakoff, 2012). The screening question on executive level positions also was refined to separate CEOs from other C-level executives. In other respects, the overall visual design remained the same used for both pilot studies. As before, a professional panel was commissioned from the survey firm Qualtrics, with the objective of obtaining between 350 and 400 respondents. As earlier, respondents were constrained to be at a vice-president level or above and firm size was required to be a minimum of 30 employees. The larger sample size for the main study was selected to facilitate a sample size that would ensure stable weights for a covariance-based structural equation model.
The final data from 423 respondents was examined to identify so-called “straight liners” – respondents who tended to consistently select the maximum, minimum or center point on the scales. The filtering was initially executed using an Excel-based program and was followed by a careful visual inspection of individual responses. The final total usable number of responses was 365. This was considered adequate for the more parsimonious questionnaire used, which totaled 48 items versus the original 98 items in pilot study 1. The respondents-to-items ratio was approximately 8:1 for the final survey. This exceeds the recommended minimum guideline of 5:1 (Hair et al., 2010).

The sample profile obtained in the final survey is summarized in Exhibit 5.1. Just over 50 percent of the firms were SMEs, 60 percent were private companies, 31 percent were manufacturing companies, and 80 percent were 10 years or older. The management profile included 41 percent CEOs, with the balance being vice-president or above. Managers were 70 percent male, 52 percent were engaged primarily in general management, and 88 percent had been with the firm more than five years. This profile has significant diversity in firm size and management positions from companies across the U.S. The sample is considered representative of a cross-section of U.S. firms with 30 or more employees.
Exhibit 5.1 – Sample Data Profile – Final Survey

<table>
<thead>
<tr>
<th>Respondent Data</th>
<th>Company Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong># of respondents</strong></td>
<td><strong>Public/Private</strong></td>
</tr>
<tr>
<td>365</td>
<td>60%</td>
</tr>
<tr>
<td><strong>Management Position</strong></td>
<td></td>
</tr>
<tr>
<td>CEO</td>
<td>Private company</td>
</tr>
<tr>
<td>41%</td>
<td>40%</td>
</tr>
<tr>
<td>Other Executive C-level</td>
<td>Public company</td>
</tr>
<tr>
<td>30%</td>
<td>17%</td>
</tr>
<tr>
<td>VP or above</td>
<td>&lt;=100</td>
</tr>
<tr>
<td>29%</td>
<td>&gt;100 &lt;=500</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Male</td>
</tr>
<tr>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>Female</td>
<td>Female</td>
</tr>
<tr>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Firm Size by employees</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;=100 &lt;=500</td>
<td>&lt;=100 &lt;=500</td>
</tr>
<tr>
<td>&gt;500</td>
<td>&gt;500</td>
</tr>
<tr>
<td><strong>Firm age – years</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;=10</td>
<td>&lt;=10</td>
</tr>
<tr>
<td>&gt;10 &lt;=50</td>
<td>&gt;10 &lt;=50</td>
</tr>
<tr>
<td>&gt;50</td>
<td>&gt;50</td>
</tr>
<tr>
<td><strong>Primary Functional Area</strong></td>
<td></td>
</tr>
<tr>
<td>General management</td>
<td>&lt;=10</td>
</tr>
<tr>
<td>52%</td>
<td>&lt;=10</td>
</tr>
<tr>
<td>Finance &amp; administration</td>
<td>&gt;10 &lt;=50</td>
</tr>
<tr>
<td>16%</td>
<td>&gt;10 &lt;=50</td>
</tr>
<tr>
<td>Marketing / Operations / R&amp;D</td>
<td>&gt;50</td>
</tr>
<tr>
<td>19%</td>
<td>&gt;50</td>
</tr>
<tr>
<td><strong>Primary business category</strong></td>
<td></td>
</tr>
<tr>
<td>HR/Other</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>12%</td>
<td>31%</td>
</tr>
<tr>
<td>Information technology &amp; services</td>
<td></td>
</tr>
<tr>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Financial &amp; related</td>
<td>Financial &amp; related</td>
</tr>
<tr>
<td>6%</td>
<td>Financial &amp; related</td>
</tr>
<tr>
<td>Wholesale / Retail</td>
<td>11%</td>
</tr>
<tr>
<td>Consulting &amp; services</td>
<td>Consulting &amp; services</td>
</tr>
<tr>
<td>13%</td>
<td>Consulting &amp; services</td>
</tr>
<tr>
<td>Health Care / Construction / Other</td>
<td></td>
</tr>
<tr>
<td>26%</td>
<td>Health Care / Construction / Other</td>
</tr>
</tbody>
</table>

**Confirmatory Factor Analysis (CFA)**

After identifying the relevant unidimensional constructs, the next step was to test an overall measurement model (Gerbing & Anderson, 1988; Hair et al., 2010). The constructs were identified through EFA as having no cross-loads and the measurement model is congeneric – therefore, none of the error terms or items between constructs was permitted to covary. The initial full measurement model is shown in Exhibit 5.2A on the next page, followed by Exhibit 5.2B which provides a summary of intercorrelations and key statistics.
Exhibit 5.2A – Full Measurement Model – Stakeholder Orientations 5-Factor Structure

Legend: ShrO = Shareholder Orientation; EmpO = Employee Orientation; CmpO = Competitor Orientation; RCstO = Responsive Customer Orientation; & PCstO = Proactive Customer Orientation.
Exhibit 5.2B – Interconstruct Path Coefficients, Average Variance Extracted and Composite Reliabilities

<table>
<thead>
<tr>
<th></th>
<th>$ShrO$</th>
<th>$EMpO$</th>
<th>$CMpO$</th>
<th>$RCstO$</th>
<th>$PCstO$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AVE</strong></td>
<td>0.72</td>
<td>0.73</td>
<td>0.68</td>
<td>0.61</td>
<td>0.62</td>
</tr>
<tr>
<td><strong>CR</strong></td>
<td>0.96</td>
<td>0.96</td>
<td>0.91</td>
<td>0.83</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Interconstruct Correlations

<table>
<thead>
<tr>
<th></th>
<th>$ShrO$</th>
<th>$EMpO$</th>
<th>$CMpO$</th>
<th>$RCstO$</th>
<th>$PCstO$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$ShrO$</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>$EMpO$</strong></td>
<td>0.578</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>$CMpO$</strong></td>
<td>0.658</td>
<td>0.831</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>$RCstO$</strong></td>
<td>0.592</td>
<td>0.758</td>
<td>0.744</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>$PCstO$</strong></td>
<td>0.566</td>
<td>0.846</td>
<td>0.777</td>
<td>0.796</td>
<td>1</td>
</tr>
</tbody>
</table>

Results for the initial CFA were favorable, suggesting a likely final model that would confirm measurement model fit. The chi-square was 1436.223, with degrees of freedom (DF) of 395, a normed chi-square of 3.636, a comparative fit index (CFI) of 0.902, and RMSEA of 0.085 (lower bound 0.08 on 90% confidence interval). A normed chi-square between 2 to 5 is acceptable, with 2 or lower preferred. Similarly, the CFI should exceed 0.9 or better and RMSEA should be less than 0.10 (Note: different sources recommend varying guidelines for RMSEA, but the 0.10-level is acceptable for exploratory research (Hair et al., 2010). The CFI meets recommended guidelines for a model of this complexity (Hair et al., 2010), and was considered acceptable for further work.

The pursuit of higher fit needs to be balanced with the need to maintain content validity, particularly in scale development (Hair et al., 2010). Thus, eliminating indicator items to achieve model fit may compromise content validity of latent constructs (DeVellis, 2011; Byrne, 2010). Pursuit of improved model fit in this study resulted in marginal improvement when compared to the significant cost of removal of several items.
per construct that exhibited strong face and content validity. For example, improving model fit suggested removing the following proactive customer orientation item – ‘we implement features for our products which customers would really like but cannot tell us about yet.’ This was judged to be a valuable item and retaining it enhanced content validity based on Narver et al. (2004).

Having established acceptable overall fit, convergent and discriminant validity of the constructs was assessed. Convergent validity seeks to establish that all items within a given construct are internally consistent, while discriminant validity seeks to demonstrate each hypothesized construct is ‘distinct’ from the other constructs. The procedure is based on an analysis of item loadings, average variance extracted, composite reliabilities, and squared inter-construct correlations. Exhibit 5.3 provides a summary of the results, with the full analysis shown in Appendix 10.

**Exhibit 5.3 – Full 5-Factor Measurement Model - Results Summary**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor Loadings Range</th>
<th>Item Reliability Range</th>
<th>Average Variance Extracted – AVE</th>
<th>Composite Reliability – CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholder Orientation – ShrO</td>
<td>0.671 – 0.926</td>
<td>0.45 – 0.86</td>
<td>72%</td>
<td>0.96</td>
</tr>
<tr>
<td>Employee Orientation – EmpO</td>
<td>0.795 – 0.894</td>
<td>0.63 – 0.80</td>
<td>73%</td>
<td>0.96</td>
</tr>
<tr>
<td>Competitor Orientation – CmpO</td>
<td>0.779 – 0.866</td>
<td>0.60 – 0.75</td>
<td>68%</td>
<td>0.91</td>
</tr>
<tr>
<td>Responsive Customer Orientation – RCstO</td>
<td>0.720 – 0.834</td>
<td>0.52 – 0.69</td>
<td>61%</td>
<td>0.83</td>
</tr>
<tr>
<td>Proactive Customer Orientation - PCstO</td>
<td>0.752 – 0.832</td>
<td>0.57 – 0.69</td>
<td>62%</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Factor loadings are consistently above 0.5 and generally well above the 0.7 recommended. Thus, each of the items relates closely to the underlying construct. Item reliabilities are correspondingly in the comfortable range and average variance extracted
(AVE) for each of the hypothesized constructs exceeded the recommended minimum of 50 percent, further demonstrating convergent validity. Finally, all constructs exhibit composite reliabilities (CRs) exceeding 0.80 which is consistent with recommended guidelines (Hair et al., 2010). Thus, convergent validity and reliability are demonstrated for all constructs.

The next step is to assess discriminant validity. This is accomplished by comparing the average variance extracted (AVE) per construct with the squared interconstruct correlations between the constructs. The Exhibit 5.4 summary analysis shows that the AVEs exceed the squared interconstruct correlations in almost all instances (see Appendix 10 for details). The squared interconstruct correlations between the proactive and responsive customer orientation (PCstO & RCstO) constructs, and the employee and competitor constructs (EmpO & CmpO) marginally exceeded the guidelines (by 0.01 & 0.02). Similarly, the squared interconstruct correlation between the employee and proactive customer (PCstO & EmpO) also exceeded guidelines (by 0.10). These small differences were considered acceptable since the content of the constructs is clearly distinctive and related to different concepts. Thus, discriminant validity is generally supported for the five constructs.

Content validity and nomological validity is examined next. Content validity is initially assumed since the items for all constructs were derived from EFAs and expert judgment based on item generation and scale purification procedures. In addition, content validity was further established based on a post hoc examination of the items associated with each construct. Nomological validity requires the constructs to relate in a logical way and to be based on theoretical and empirical considerations. An examination of
Exhibit 5.4 shows that all stakeholder orientations are positively correlated as expected, thus confirming nomological validity.

**Exhibit 5.4 – Discriminant Validity Summary for Components of Extended Stakeholder Orientation**

<table>
<thead>
<tr>
<th></th>
<th>$SHrO$</th>
<th>$EMpO$</th>
<th>$CMpO$</th>
<th>$RCstO$</th>
<th>$PCstO$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$AVE$</td>
<td>0.72</td>
<td>0.73</td>
<td>0.68</td>
<td>0.61</td>
<td>0.62</td>
</tr>
</tbody>
</table>

*Squared Interconstruct Correlations – Discriminant Validity*

<table>
<thead>
<tr>
<th></th>
<th>$SHrO$</th>
<th></th>
<th>$EMpO$</th>
<th></th>
<th>$CMpO$</th>
<th></th>
<th>$RCstO$</th>
<th></th>
<th>$PCstO$</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$SHrO$</td>
<td>1</td>
<td></td>
<td>0.33</td>
<td></td>
<td>0.43</td>
<td></td>
<td>0.35</td>
<td></td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>$EMpO$</td>
<td></td>
<td>1</td>
<td>0.69</td>
<td>1</td>
<td></td>
<td></td>
<td>0.57</td>
<td>1</td>
<td>0.72</td>
<td>1</td>
</tr>
<tr>
<td>$CMpO$</td>
<td>0.43</td>
<td>0.69</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0.55</td>
<td>1</td>
<td>0.60</td>
<td>1</td>
</tr>
<tr>
<td>$RCstO$</td>
<td>0.35</td>
<td>0.57</td>
<td>0.55</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$PCstO$</td>
<td>0.32</td>
<td>0.72</td>
<td>0.60</td>
<td>0.63</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In sum, the scales for each of the constructs can be considered validated. Yau et al. (2007) indicated that a second order unidimensional stakeholder orientation construct with essential stakeholder orientation components likely existed. Based on the Yau conclusion, a second order stakeholder orientation construct with five first order constructs was modeled and labeled as extended stakeholder orientation (XSO). The next sections test the hypotheses suggested by the theoretical framework to determine predictive validity.

**Extended Stakeholder Orientation (XSO)**

The results of the exploratory factor analyses conducted in pilot studies 1 and 2 indicated the value of including proactive items in each of the stakeholder orientation concepts. It was also demonstrated that stakeholder orientation could be effectively represented by five components. Based on the findings of the pilot studies as well as the
earlier work by Yau et al. (2007), the five stakeholder orientations were hypothesized to result in a second order extended stakeholder orientation construct. Therefore, 

*Test of Hypothesis 1:*

\[ H1: \text{Stakeholder orientations have both responsive and proactive components that together are representative of extended stakeholder orientation.} \]

In Chapter 4, the scale development and purification process using EFA demonstrated that stakeholder orientation consists of both responsive and proactive components. Moreover, the stakeholder orientation scale included customer, competitor, employee and shareholder components. We extend that earlier scale development to include consideration and possible confirmation of an extended stakeholder construct in this section.

Stakeholder orientation is a composite of management attention to all stakeholders versus any particular subset. This forms the basis of stakeholder theory. Extended stakeholder orientation is theorized as including both proactive and responsive considerations: forward looking, preemptive, and stakeholder leading versus following actions. The value of the hypothesized second order extended stakeholder orientation is in providing a tool for management to assess this dimension as a single measure. Additionally, some directional comparative indications can be obtained as to which of the first order factors are the best predictors and therefore worthy of more attention and resource allocation. The next step, therefore, is to demonstrate empirically that a second order factor with adequate fit exists (Hair et al., 2010).

The structure of the proposed second order factor is shown in Exhibit 5.5A on the following page, and immediately following is Exhibit 5.5B, which provides a summary
of path coefficients and variances explained for each component of extended stakeholder orientation. The initial model was run with all relevant components included. The chi-square was 1461.264 and the DF was 400 (< 0.000). The comparative fit index (CFI) was 0.901, the normed chi-square was within the 2 to 5 range (3.653), and the RMSEA was 0.085, all of which meet recommended guidelines (Hair et al., 2010). From a content validity perspective as well as the path estimates, the second order factor (XSO) is logically consistent. The fit measures and the large path coefficients (see Exhibit 5.6) for all first order constructs ranging from 0.66 to 0.92 was confirmation that the second order factor XSO represented the underlying first order constructs.

The path coefficients of the five stakeholder components can be used to assess the relative contribution of each of the components to the second order construct XSO. As shown in Exhibit 5.5B, CmpO, PCstO and EmpO range from 0.895 to 0.92, while the path for RCstO is somewhat lower at 0.847 and for ShrO is much lower at 0.665. Thus, the much lower contribution of ShrO to XSO indicates its contribution to the predictive power of XSO is the lowest, and the contributions of CmpO, PCstO and EmpO to the predictive power of XSO are all much higher. The sizes of these path coefficients are a relative indication of each of the stakeholder components in predicting the endogenous variables innovation orientation and firm performance.

The results of the EFA and the CFA indicate the five stakeholder components represent a higher order construct. For this research the higher order construct has been labeled Extended Stakeholder Orientation (XSO). The analyses confirm, therefore, that an extended stakeholder orientation construct can be modeled. Therefore, Hypothesis H1 is accepted.
Exhibit 5.5A – Extended Stakeholder Orientation as Second Order Unidimensional Construct

Exhibit 5.5B – Summary of Path Coefficients and Variances Explained

<table>
<thead>
<tr>
<th>XSO</th>
<th>PCstO Path Coefficients</th>
<th>RCstO Path Coefficients</th>
<th>EmpO Path Coefficients</th>
<th>CmpO Path Coefficients</th>
<th>ShrO Path Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path Coefficients</td>
<td>0.903</td>
<td>0.847</td>
<td>0.895</td>
<td>0.92</td>
<td>0.665</td>
</tr>
<tr>
<td>Variances Explained</td>
<td>0.816</td>
<td>0.717</td>
<td>0.847</td>
<td>0.801</td>
<td>0.442</td>
</tr>
</tbody>
</table>
Construct Validity and Reliability of Full Model

In the earlier sections, we examined the construct validity and reliability of the exogenous constructs representing stakeholder orientation. The construct validity of the two endogenous constructs relative to the second order extended stakeholder orientation construct was examined next. Exhibit 5. displays the CFA model that includes the two endogenous constructs of innovation orientation and firm performance. Exhibit 5.6B provides the summary of path coefficients and variances explained.

Exhibit 5.6A – Extended Stakeholder Orientation, Innovation Orientation and Firm Performance

Legend: XSO = Extended Stakeholder Orientation; InO = Innovation orientation; FP = Firm Performance
Exhibit 5.6B – Path Coefficients and Variances Explained Full Model

<table>
<thead>
<tr>
<th></th>
<th>XSO</th>
<th>INO</th>
<th>FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVE</td>
<td>0.72</td>
<td>0.66</td>
<td>0.66</td>
</tr>
<tr>
<td>CR</td>
<td>0.93</td>
<td>0.96</td>
<td>0.92</td>
</tr>
</tbody>
</table>

**Interconstruct Correlations**

<table>
<thead>
<tr>
<th></th>
<th>XSO</th>
<th>INO</th>
<th>FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>XSO</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INO</td>
<td>0.946</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FP</td>
<td>0.775</td>
<td>0.747</td>
<td>1</td>
</tr>
</tbody>
</table>

The chi-square was 3674.847 and DF of 1072. Normed chi-square was 3.428, CFI was 0.856, and RMSEA was 0.082. The 90 percent confidence interval for RMSEA falls within 0.079 and 0.085. The loadings of the theorized five components of extended stakeholder orientation remain high, as do the paths from XSO to the five sub-constructs. The normed chi-square and RMSEA are consistent with recommended guidelines, and the CFI is somewhat below (Hair et al., 2010). While the fit is marginal, researchers recommend that content should receive priority over model fit indices in determining scale development work (Byrne, 2010; DeVellis, 2011; Hair et al., 2010). In this instance, the objective was to retain as many items as possible to support content validity for innovation orientation (all 12 items) and firm performance (all 6 items). In general, model fit can be accomplished to a desired degree, but the tradeoff can be significant loss of content validity by elimination of useful items. Hence, in this case and for the subsequent SEM models, the overriding priority of content validity is maintained.

Exhibit 5.7 summarizes the key parameters of the model. The item loadings and reliability for the innovation orientation construct are above recommended levels. The composite reliability of the innovation orientation of 0.96 indicates high internal consistency and the AVE of 75 percent confirms convergent validity. The composite
reliability and AVE for firm performance at 0.91 and 66 percent respectively indicate that construct is reliable and exhibits convergent validity.

**Exhibit 5.7 – Measurement Model Summary for Extended Stakeholder Orientation, Innovation Orientation and Firm Performance**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor Loadings Range</th>
<th>Item Reliability Range</th>
<th>Average Variance Extracted – AVE</th>
<th>Composite Reliability – CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Stakeholder Orientation</td>
<td>0.663 – 0.927</td>
<td>0.440 – 0.859</td>
<td>72%</td>
<td>0.93</td>
</tr>
<tr>
<td>Innovation Orientation</td>
<td>0.739 – 0.837</td>
<td>0.546 – 0.701</td>
<td>66%</td>
<td>0.96</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>0.781 – 0.874</td>
<td>0.605 – 0.764</td>
<td>66%</td>
<td>0.92</td>
</tr>
</tbody>
</table>

The assessment of discriminant validity among the constructs is summarized in Exhibit 5.8 (Appendix 11 provides the full analysis). The analysis shows that both extended stakeholder orientation and innovation orientation exhibit discriminant validity relative to firm performance. However, the squared interconstruct correlation between extended stakeholder orientation and innovation orientation exceeds the within-construct AVE for extended stakeholder orientation, indicating the two constructs are highly related. Examination of the questions associated with each of the two constructs confirms content validity. Moreover, the innovation orientation construct is conceptualized as an outcome variable and is therefore, expected to be closely related to the exogenous extended stakeholder orientation construct. Based on these considerations the three constructs are assumed to exhibit discriminant validity.

Nomological validity was also examined and the results are logical and consistent with theory. That is, all correlations among the constructs are positive and significantly
related, as theorized. Since the measurement model exhibits acceptable fit, construct validation and reliability for exploratory research involving a model of this complexity, the next step is to proceed to SEM analysis.

**Exhibit 5.8 – Discriminant Validity Summary for Extended Stakeholder Orientation, Innovation Orientation and Firm Performance**

<table>
<thead>
<tr>
<th></th>
<th>XSO</th>
<th>InO</th>
<th>FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVE</td>
<td>0.72</td>
<td>0.66</td>
<td>0.66</td>
</tr>
</tbody>
</table>

**Squared Interconstruct Correlations – Discriminant Validity**

<table>
<thead>
<tr>
<th></th>
<th>XSO</th>
<th>InO</th>
<th>FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>XSO</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>InO</td>
<td>0.89</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FP</td>
<td>0.60</td>
<td>0.56</td>
<td>1</td>
</tr>
</tbody>
</table>

**Extended Stakeholder Orientation (XSO) and Firm Performance (FP)**

The literature review and theoretical framework (see end of Chapter 3) suggest that extended stakeholder orientation is positively correlated to firm performance. Thus, the relationship between XSO and a measure of overall performance, including financial and non-financial measures, would be expected to be positive. Therefore,

*Test of Hypothesis 2:*

\[ H2: \text{Extended stakeholder orientation is positively related to firm performance.} \]

To examine this relationship a structural equations model was run. The model is shown in Exhibit 5.9A, and Exhibit 5.9B summarizes the information.
Exhibit 5.9A – Extended Stakeholder Orientation and Firm Performance

Exhibit 5.9B – Summary of Path Coefficients and Variances Explained

<table>
<thead>
<tr>
<th>XSO</th>
<th>Firm Performance</th>
<th>PCstO</th>
<th>RCstO</th>
<th>EmpO</th>
<th>CmpO</th>
<th>ShrO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path Coefficients</td>
<td>0.772</td>
<td>0.91</td>
<td>0.847</td>
<td>0.93</td>
<td>0.881</td>
<td>0.651</td>
</tr>
<tr>
<td>Variances Explained</td>
<td>0.597</td>
<td>0.827</td>
<td>0.717</td>
<td>0.865</td>
<td>0.776</td>
<td>0.424</td>
</tr>
</tbody>
</table>
The SEM path analysis resulted in a chi-square of 2045.508, DF of 588 ($p \leq 0.000$). The normed chi-square was 3.479. The comparative fit index was 0.886 and the RMSEA was 0.083 with 90 percent confidence level bounds of 0.079 and 0.086. The path coefficient indicates that the correlation between XSO and FP is 0.77 ($p \leq 0.000$). The fit measures are acceptable and the XSO to FP correlation is substantial in the suggested categorization of 0.75, 0.5, and 0.25 as substantial, moderate or weak respectively (Hair, Ringle & Sarstedt, 2011). The high correlation and the variance explained in performance of 60 percent by XSO are meaningful. In comparison, while not directly comparable, the correlations between market orientation and performance fell in the range of 0.35 to 0.41 (Kohli et al., 1993; Narver & Slater, 1990). All loadings associated with XSO are strong, but proactive customer and employee orientation constructs are both correlated somewhat higher than the other orientations (0.91 and 0.93 compared to 0.88, 0.85 and 0.65). It appears that a focus on employees and proactively serving customers in combination with a balanced attention to other stakeholders enhances firm performance.

The SEM-based path model supports the positive and meaningful correlation of XSO and FP. Hypothesis H2 is therefore accepted.

**Extended Stakeholder Orientation and Innovation Orientation (InO)**

Extended stakeholder orientation is expected to be positively correlated with innovation orientation (InO). Thus, *Test of Hypothesis 3:*

*H3: Extended stakeholder orientation is positively correlated with innovation orientation.*
Exhibit 5.10A on the next page shows a path model to test this relationship, followed by summary information in Exhibit 5.10B. The chi-square is 2931.31 and DF is 813. The normed chi-square is 3.606, the CFI 0.866, and RMSEA 0.085. Based on these measures, improvement in model fit was pursued to examine any items that might need to be eliminated to achieve better model fit. The result was marginal gains in model fit that required removal of items that were meaningful based on content validity. For example,

**Exhibit 5.10A – Extended Stakeholder Orientation and Innovation Orientation**
Exhibit 5.10B – Path Coefficients and Variances, Extended Stakeholder Orientation and Innovation Orientation

<table>
<thead>
<tr>
<th></th>
<th>XSO</th>
<th>Innovation Orientation</th>
<th>PCstO</th>
<th>RCstO</th>
<th>EmpO</th>
<th>CmpO</th>
<th>ShrO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Path Coefficients</strong></td>
<td></td>
<td></td>
<td>0.946</td>
<td>0.926</td>
<td>0.85</td>
<td>0.923</td>
<td>0.855</td>
</tr>
<tr>
<td><strong>Variance Explained</strong></td>
<td></td>
<td></td>
<td>0.896</td>
<td>0.827</td>
<td>0.717</td>
<td>0.865</td>
<td>0.776</td>
</tr>
</tbody>
</table>

Modification indices suggested removal of financial performance indicators associated with sales growth, customer satisfaction and employee satisfaction to improve fit. But these items have high loadings exceeding 0.7 on the financial performance construct. The relative gain in model fit would be small with respect to the overall fit measures and the resulting removal of important indicators. Given the high loadings of these indicators, a judgment was made to give precedence to content validity over minimal model fit improvements.

The model confirms a high correlation of 0.95 (p ≤ 0.000) between XSO and InO. Extended stakeholder orientation explains 90 percent of the variation in innovation orientation. The path coefficients between proactive customer orientation and XSO (0.93, p ≤ 0.000) and employee orientation and XSO (0.92, p ≤ 0.000) indicate that these stakeholder orientations represent a somewhat larger component of XSO relative to other stakeholder orientations, and therefore in predicting InO. Hypothesis H3 is accepted based on the results, thus providing added predictive validation for the relationship between XSO and innovation orientation.
Innovation Orientation and Firm Performance

As discussed in the theoretical framework, innovation orientation is viewed as integral to firm performance (FP). Thus, innovation orientation is likely to impact firm performance positively. A model representing the relationship between innovation orientation and firm performance using SEM-based path analysis was tested next (see Exhibits 5.11A and 5.11B).

Test of Hypothesis 4:

*H4: Innovation orientation is positively correlated to firm performance.*

Results of the SEM indicated a chi-square of 617.335 and DF of 134. The normed chi-square was 4.607 and RMSEA was 0.1. The CFI of 0.916 was consistent with guidelines but the RMSEA (0.1) and normed chi-square were at the high end of the acceptable range (Hair et al., 2010).

The relationship between innovation orientation and firm performance was examined next. The correlation between innovation and firm performance was high at 0.75 (p ≤ 0.000). Moreover, innovation orientation explains 56 percent of the variance in firm performance. The meaningful positive correlation between innovation orientation and firm performance indicates nomological validity. The results demonstrate, therefore, the anticipated positive and meaningful correlation between innovation orientation and firm performance, and Hypothesis H4 is accepted.
Exhibit 5.11A - Innovation Orientation and Firm Performance

Exhibit 5.11B – Path Coefficients and Variances, Innovation Orientation and Firm Performance

<table>
<thead>
<tr>
<th>Innovation Orientation</th>
<th>Firm Performance</th>
<th>Innovation Orientation Loadings Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path Coefficients</td>
<td>0.746</td>
<td>0.732-0.846</td>
</tr>
<tr>
<td>Variances Explained</td>
<td>0.556</td>
<td>0.535-0.716</td>
</tr>
</tbody>
</table>
Structural Analysis – XSO, Innovation Orientation and Firm Performance

The theoretical framework suggested that extended stakeholder orientation would be positively correlated to both innovation orientation and firm performance. It was also hypothesized that innovation orientation would be positively correlated to firm performance and would act as a mediator between XSO and firm performance. The measurement model demonstrated that the constructs are positively correlated and minimally acceptable fit was confirmed. Moreover, SEMs run in the previous section confirmed that the individual relationships between the three constructs were statistically significant, positive and meaningful. The next step, therefore, was to test a structural model that facilitates testing the mediation hypothesis.

*Test of Hypothesis H5:*

H5: Innovation orientation mediates the relationship between extended stakeholder orientation and firm performance.

The SEM model and relevant data are shown in Exhibits 5.12A and Exhibit 5.12B (on the following pages) and results of testing the mediation model are summarized in Exhibit 5.13. The model fit parameters were similar to previous SEM analyses. Chi-square was 3674.847 (< 0.000), DF 1072, and normed chi-square was 3.428. The CFI was 0.856 and RMSEA 0.082 with 90 percent confidence interval bounds of 0.079 and 0.085. These were considered minimally acceptable for exploratory research focused on scale development (Hair et al., 2010).
Exhibit 5.12A – Extended Stakeholder Orientation, Innovation Orientation and Firm Performance
Exhibit 5.12B – Path Coefficients and Variances, Extended Stakeholder Orientation, Innovation Orientation and Firm Performance

<table>
<thead>
<tr>
<th>Path Coefficient s</th>
<th>Innovation Orientation</th>
<th>Firm Performance</th>
<th>PCstO</th>
<th>RCstO</th>
<th>EmpO</th>
<th>CmpO</th>
<th>ShrO</th>
</tr>
</thead>
<tbody>
<tr>
<td>XSO to FP</td>
<td>0.946</td>
<td></td>
<td>0.927</td>
<td>0.85</td>
<td>0.926</td>
<td>0.852</td>
<td>0.663</td>
</tr>
<tr>
<td>InO to FP mediation</td>
<td>0.127</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Variances Explained| 0.896                   | 0.602            | 0.859 | 0.722 | 0.858| 0.725| 0.439|

Exhibit 5.13 – Summary of Extended Stakeholder Orientation, Innovation Orientation and Firm Performance Model Results

<table>
<thead>
<tr>
<th>Correlations, Variance Explained and Levels of Significance</th>
<th>Model Fit Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>• XSO and Innovation Orientation β Path coefficient 0.946 (p ≤ 0.000)</td>
<td>• Chi-square 3674.847</td>
</tr>
<tr>
<td>• XSO and FP β Correlation 0.65 (p ≤ 0.000)</td>
<td>• DF 1072</td>
</tr>
<tr>
<td>• Innovation orientation and FP β Correlation 0.127 (p ≤ 0.461)</td>
<td>• Normed chi-square 3.428</td>
</tr>
<tr>
<td>• RMSEA 0.082 (90 percent bounds 0.079 - 0.085)</td>
<td></td>
</tr>
</tbody>
</table>

The path relationships were examined next. The path coefficients among XSO and innovation orientation (0.946, p ≤ 0.000), as well as XSO and firm performance (0.65, p ≤ 0.000), were strong and significant. However, the correlation between innovation orientation and firm performance was low (0.127) and insignificant (p ≤ 0.461). The small and insignificant relationship between InO and FP was surprising since it was inconsistent with the theoretical framework of the study, previous path models examined in this study, and past research. More specifically, innovation orientation was significantly related to firm performance in the direct SEM model shown in Exhibits
5.11A and B, with a path coefficient of 0.75 and significance of \( p \leq 0.000 \). As a result, the mediation model required further examination and analysis.

**Extended Analysis of SEM Mediation Model**

Several knowledgeable experts brainstormed these findings and concluded the results were not logical, particularly since bivariate correlations in this same research demonstrated that the relationship is positive and significant. One explanation for the illogical finding of no relationship between innovation orientation and performance was the possibility of a suppressor effect due to interactive effects of multicollinearity in the SEM analysis. Another possibility was that a subgroup of responding companies might have been either highly innovative, or not innovative at all, thus distorting the findings for the path between XSO and performance. The sample frame included small firms, restaurants, service and construction companies – firms generally not requiring innovation relative to, say, technology or larger firms. Thus, the results may be skewed by such firms.

Since the XSO construct was formulated as a second order construct, multicollinearity was eliminated as a possible explanation because discriminant validity based on the underlying subscales content is distinct from the content of the endogenous innovation orientation and firm performance constructs (Grewal, Cote, & Baumgartner, 2004; Hair et al., 2010). To further search for the source of the suppressor effect on this relationship, the sample of firms was submitted to a hierarchical cluster analysis using the innovation orientation scale (Hair et al., 2010). The final survey data included 365 firms with about 17% being smaller than 100 employees in size. A number of these firms are in the construction and service-based trades. The imperative for innovation for such firms is
possibly less than for Information Technology and Services-based firms and other larger companies who face higher competitive pressures (Armstrong et al., 1996; Christensen & Bower, 1996). The cluster analysis identified a three-group solution. All three groups were statistically significantly different from each other in terms of innovativeness (< 0.000). There was a relatively innovative sample of 190 firms that exhibited a high innovativeness (mean = 8.6 on a 0 to 10-point scale; higher mean = more innovative). There was a moderately innovative group (N=124) with a mean innovativeness of 6.8. Finally, a relatively much smaller group (N=51) was identified as relatively low innovators (mean = 4.1).

To determine whether the less innovative group was distorting the relationship, the least innovative companies were removed from the sample. The remaining sample of moderately and highly innovative firms consisted of 314 firms. The reduced sample of 314 innovative firms was used to run the SEM model again. The fit for the initial structural model was minimally acceptable and the results exhibited a meaningful and significant relationship (p ≤ 0.000) between innovation orientation and firm performance. But the relationship between XSO and firm performance was not significant (p ≤ 0.350). As a result, a decision was made to further examine the model.

The approach to improving the structural model fit involved assessing the pattern of standardized residuals and modification indices. Indicators with systematic pattern of larger residuals, or modification indices above were identified for removal (Hair et al., 2010). This process resulted in the removal of four indicator variables – FP 4 and 5, PCst 2, and CmpO 3. After executing these steps, a SEM model with improved fit and significant parameters was obtained. Model fit parameters were a chi-square of 1750.883
(DF of 586, a normed chi-square of 2.988, a CFI of 0.868, and RMSEA of 0.080. Model fit was considered acceptable based on the complexity of the model, the scale development objectives of the research, and the fact that the research is exploratory (Hair et al., 2010).

Further improvement of model fit was explored by continuing to remove indicators associated with a pattern of higher standardized residuals and/or modification indices. The CFI was improved to above 0.90 and the RMSEA approached 0.05. However, pursuit of this improved fit reduced the content validity of the stakeholder constructs, and the conclusion was to revert to the previously summarized model to retain broader content validity. The approach taken to prioritize content over model fit is well supported. Scholars consistently suggest that the researchers’ assessment of content should be weighted above model fit adjustments when such adjustments result in the loss of meaningful scale content, particularly when scale development is an integral component of the research objectives (DeVellis 2011; Byrne 2010; Hair et al., 2010).

The information provided in Exhibits 5.14A and 5.14B on the following pages summarizes the final SEM model that examines the relationships between XSO (extended stakeholder orientation) and the two outcome constructs examined in this research – innovation orientation (InO) and firm performance (FP). The results indicate that the indirect paths from XSO to InO and then from InO to FP are both significant and meaningful. Furthermore, the direct path from XSO to FP is also significant and meaningful. These findings confirm that the hypothesized mediation effect of InO is present in the final SEM model. Extended stakeholder orientation exhibited a path coefficient with innovation orientation of 0.90 (p ≤ 0.000). Extended stakeholder
orientation also had a statistically significant path coefficient with firm performance of 0.27 (p ≤ 0.043), and the relationship between innovation orientation and firm performance was 0.47 (p ≤ 0.002). Extended stakeholder orientation explained 81 percent of the variance in innovation orientation. Together, the direct path of XSO to FP and the indirect path from XSO through InO to FP explained 52 percent of the variance in firm performance. Thus, partial mediation is demonstrated and Hypothesis H5 is accepted.

**Exhibit 5.14A – Extended Stakeholder Orientation, Innovation Orientation and Firm Performance – High and Moderate Innovators Fit Adjusted Model**
Exhibit 5.14B – Path coefficients and Variances, Extended Stakeholder Orientation, Innovation Orientation and Firm Performance – High and Moderate Innovators Fit Adjusted Model

<table>
<thead>
<tr>
<th>XSO</th>
<th>Innovation Orientation</th>
<th>Firm Performance</th>
<th>PCstO</th>
<th>RCstO</th>
<th>EmpO</th>
<th>CmpO</th>
<th>ShrO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path Coefficients</td>
<td>0.901 (p &lt; 0.000)</td>
<td>XSO to FP 0.265 (p &lt; 0.043) and InO to FP mediation 0.473 (p &lt; 0.002)</td>
<td>0.904</td>
<td>0.828</td>
<td>0.88</td>
<td>0.795</td>
<td>0.577</td>
</tr>
<tr>
<td>Variances Explained</td>
<td>0.812</td>
<td>0.521</td>
<td>0.817</td>
<td>0.686</td>
<td>0.775</td>
<td>0.632</td>
<td>0.333</td>
</tr>
</tbody>
</table>

Discussion

The theoretical framework integrating stakeholder theory and market orientation suggested that stakeholder orientation would be composed of the four essential stakeholders with responsive and proactive components as indicators (Greenley & Foxall, 1997; Greenley et al., 2005; Narver et al., 2004). Prior research also suggested that the stakeholder orientation components would constitute a unidimensional construct. In the current study, this construct was designated extended stakeholder orientation (XSO) to distinguish it from stakeholder orientation since XSO specifically integrates both responsive and proactive considerations (Matsuno et al., 2005; Narver et al., 2004; Yau et al., 2007). Innovation orientation has been shown to be closely related to market orientation, and by extension to stakeholder orientation (Atuahene-Gima, 1996; Baker & Sinkula, 1999, 2009; Grinstein, 2008, 2008a; Hult et al., 2004). Both XSO and innovation orientation were expected to be interrelated and to be drivers of improved firm performance. Innovation orientation was proposed as a mediator between XSO and firm...
performance. Each of the five hypotheses reflecting the theoretical framework was supported with the more specific findings discussed in the following paragraphs.

The confirmatory factor analysis of five factors – shareholder orientation, employee orientation, responsive customer orientation, proactive customer orientation and competitor orientation – revealed that each of the four stakeholder orientations were reliable and exhibited construct validity. This finding underpinned the formation of the second order XSO construct hypothesized in the first hypothesis. The second order XSO AVE was 70 percent and composite reliability was 0.92. Thus, XSO is considered a robust construct. Proactive customer and employee orientations loaded somewhat higher on XSO than the other orientations, and the interconstruct correlation between these two factors was relatively high (0.72). This suggests that employee orientation may be a fundamental in supporting proactive customer orientation.

Hypothesis H2 was supported and showed that XSO is positively correlated with firm performance (0.77 level, p ≤ 0.000). The firm performance measure was designed as an overall measure that included employee and customer satisfaction indicators in addition to financial indicators related to sales growth, market share and profitability. This finding confirms XSO as a driver of firm performance in the U.S. context for the first time. Additionally, the finding supports previous work based on proxy data suggesting stakeholder orientation and firm performance are positively correlated (Berman et al., 1999; Hillman & Keim, 2001).

No prior research was found examining the relationship between stakeholder orientation and innovation orientation. This is in contrast to the considerable number of empirical studies showing that market orientation, and in particular, proactive market
orientation, is a driver of innovation (Grinstein, 2008; Kirca et al., 2005). Thus, the support established for H3 that XSO is positively correlated to innovation orientation (.95, \( p \leq 0.000 \)) level is also a new empirical finding. The relatively high level of correlation is noteworthy in that firms pursuing a high degree of innovation would likely benefit from being stakeholder oriented with a strong proactive emphasis, especially with respect to customers and employees. As noted previously, 50 percent of the scale items for employee orientation were proactive. Moreover, the proactive customer orientation construct and the employee orientation construct both exhibited relatively higher loadings on the extended stakeholder orientation construct (see Exhibit 5.5B), thus suggesting their contribution to predicting innovation orientation is relatively higher.

Innovation orientation drives better firm performance (Denning, 2010; Dobni, 2006). Support for H4 confirms this relationship. Innovation orientation is positively and highly correlated to firm performance (0.75, \( p \leq 0.000 \)). This finding, based on a sample of public and private U.S. firms ranging in size from small to large, is important in turbulent times from both a technology and market point of view since changes in technology and market shifts require innovativeness to be competitive (Baker & Sinkula, 2009; Grinstein, 2008; Paladino, 2008).

Finally, after model fit adjustment was undertaken, it was shown that innovation orientation acts as a partial mediator between XSO and firm performance. Support for H5 for the hypothesized mediating effect of innovation orientation was found only for firms exhibiting moderate to high innovative characteristics. The finding indicates that the relationship between stakeholder orientation, innovation orientation, and firm performance for less innovative firms needs further examination. In contrast, for
moderate and highly innovative firms the need to combine stakeholder orientation and innovation orientation appears evident. Together, XSO and innovation orientation explain 52 percent of the variance in firm performance. XSO is more highly correlated (0.90, p ≤ 0.000) to innovation orientation than to firm performance (0.27, p ≤ 0.043). The implication is that both XSO and InO work in tandem to deliver better firm performance. XSO provides the support for better innovation and therefore improved performance. Innovation orientation is more highly correlated to firm performance than is XSO (0.47, p ≤ 0.002) versus XSO to firm performance correlation of 0.27 (p ≤ 0.043). While the results should be interpreted cautiously, the implication of this finding is that XSO and innovation orientation must go hand in hand for driving higher firm performance. That is, firm performance is improved for companies that are innovative and emphasize stakeholder orientation. Stakeholder orientation may benefit relatively less innovative companies, but that benefit is unclear from the current study.

In summary, this study has developed extended and validated scales for responsive and proactive customer orientation, employee orientation, competitor orientation and shareholder orientation. Importantly, all stakeholder orientations demonstrated that proactive considerations are integral to measuring these constructs (Ferrell et al., 2010; Jaworski & Kohli, 1993; Maignan et al., 2011; Narver et al., 2004). Scale development and validation in the context of a wide range of public and private U.S.-based companies, with firm size ranging from 30 to over 100,000 employees in a broad range of industries, provides a sound basis for future research using a similar approach. The validated scales were instrumental in providing important empirical
findings that suggest extended stakeholder orientation and its components together with innovation orientation are closely interrelated and drivers of improved firm performance.

The constructs as developed are well aligned empirically with stakeholder theory and market orientation (Freeman et al., 2010; Kirca et al., 2005; Laplume et al., 2008) and the managerial implications deserve further attention. Since the proactive aspect has not previously been integrated into stakeholder considerations, the implications for future research are evident. These aspects, contributions, and limitations are discussed in the next chapter.
Chapter 6: CONCLUDING REMARKS AND OUTLOOK

The research conducted was an effort to respond to the call for empirical study of stakeholder orientation by developing validated scales and testing related hypotheses. Scales for stakeholder orientation and innovation orientation have either not been available for a U.S. context or not been updated since early 2000. The study augmented previous stakeholder theory to include the extended stakeholder orientation (XSO) concept. The confirmed interrelationships between XSO, innovation orientation and firm performance fill a gap in literature and provide an impetus for future research. This chapter discusses contributions to theory, the study’s limitations, and suggests significant managerial implications and directions for future research.

Contributions

This study sought to integrate stakeholder theory and market orientation including proactive considerations as identified by Narver et al. (2004). The work has resulted in contributions to theory related to stakeholder orientation, possible interrelationships among stakeholders, innovation orientation and firm performance, and empirical findings with significant managerial implications. The process resulted in the development of multiple scales and the execution of empirical tests of several hypotheses. This section elaborates contributions to theory and empirical research.
Theoretical

A literature review identified several research gaps. A major gap revealed was the lack of empirical work related to stakeholders, other than that available through public proxy databases for Fortune 1000 companies. The development of scales for all stakeholders with proactive considerations were updated and extended in order to help address the gap. The overall second order extended stakeholder orientation scale and subscales for the stakeholder orientations were shown to be highly reliable. The addition of the unidimensional XSO construct to theory represents a potentially significant addition to theory. The XSO concept extends both market orientation and stakeholder orientation, which then may help explore the interrelations among antecedents and outcomes beyond the stakeholder groups and firm performance in this study. For example, the unidimensional nature of the XSO construct can help reduce overall complexity of models when the essential shareholders are the focus.

The subscales for the stakeholders updated existing customer, competitor, employee and shareholder orientation scales and included recent developments. Most importantly, proactive dimensions were added to the stakeholder constructs. The work showed that stakeholder orientation and market orientation, which was logically extended by adding two additional essential stakeholders, are complementary as predicted by scholars (Ferrell et al., 2010; Jaworski & Kohli, 1993; Matsuno et al., 2005). The proactive customer orientation with its emphasis on new products and services, and employee and shareholder orientations, which had about half the number of higher loading items as proactive, the Narver et al. (2004) article, and subsequent demonstrations by Blocker et al. (2011) reinforce proactive considerations. Therefore,
proactive considerations appear to play an integral role in stakeholder orientations as demonstrated by the scale items and findings.

The sample frame and methodology of the work done in this study on development of stakeholder orientation subscales represents a potentially meaningful contribution. Much of the earlier scale development work was limited to marketing executives (see Appendix 1). In the pilot studies and the main study, the sample frame represented a cross-section of industries, firm sizes, and senior executives across the U.S. Thus, the scales developed may have more relevance and generalizability for firms in the U.S. The stakeholder orientation subscales provide tools to investigate interrelationships focused on outcome variables other than innovation orientation and firm performance.

Scales measuring innovation orientation were previously very limited in scope and did not include recent developments. In short, academic research has yet to address the rapid developments occurring in the field of innovation. Narver et al. (2004) had only three indicators in their innovation orientation variable, for example. Similarly, Hult et al. (2005) had three items on innovativeness and Baker and Sinkula. (2009) had four items. The tenor of the extant scales was general relative to competitors, and did not address specific firm practices. Recent practitioner-oriented articles (Brown & Anthony, 2011; Denning, 2011; Martin, 2011) enabled incorporation of additional items such as CEO emphasis on innovation in all aspects of business, specific training for the development of new products and services, and regular brainstorming for D4D (design for delight) inventory of ideas for new products and services.

An innovation orientation scale was developed in this research that extended beyond the previously available 3-item scale. Specifically, a 12-item scale, with an AVE
of 66 percent and squared interconstruct correlations of 0.89 and 0.56 with XSO and firm performance, respectively, appeared stable and valid across two pilot studies and the final survey. The scale for innovation orientation, therefore, extends previous scales in addressing not only interrelationships with stakeholders, but also other potential organizational research such as developing resources that will perhaps improve research on firm performance (Barney, 1991).

Finally, an updated version of firm performance with financial and non-financial indicators and a competitor-related overall indicator was confirmed for a U.S.-based, diversified sample frame (AVE 0.66, scale composite reliability 0.91). While the underlying indicators for firm performance were not new, the validation within the recent sample frame provides confidence in the deployment of this scale as a dependent variable. To this extent the validation of the firm performance scale adds to available research tools.

In addition to the scales developed, the findings provide empirical evidence for the role of proactive considerations and mediating interrelationship among innovation orientation, XSO and firm performance. This is a new finding not evident in extant literature. Thus, the contribution toward covering research gaps is potentially valuable. Moreover, the management implications of the strong correlations between XSO and firm performance and InO and firm performance are discussed in the next section.

**Managerial Implications**

The findings provide empirical evidence for management to incorporate into their strategic decision-making. Evidence across a cross-section of U.S.-based firms is that companies that pay attention to their stakeholders with proactive processes exhibit
improved performance. In addition, the ability to innovate appears to be enhanced by stakeholder-focused approaches. Literature has suggested a possible theoretical link, and leading companies such as IBM and Apple have shown the way (Lohr, 2011; Vogelstein, 2008). Keeping in mind that the firm performance variable in this study included both financial and non-financial customer and employee satisfaction indicators, it appears likely that all essential stakeholder orientations as well as innovation orientation suggest proactive activities that could lead to improved performance.

Both responsive and proactive customer orientations are clearly important. Responsive customer orientation is focused on providing customer satisfaction by maintaining better customer focus than competitors, disseminating customer satisfaction to all levels of management for improvements, and acting rapidly on customer satisfaction data. On the other hand, proactive customer orientation encourages an emphasis on being a leader in integrating technological developments and constantly providing product improvements. Proactive customer orientation emphasizes a need to create features, product plans and product launches which are ahead of any customer-expressed feedback. The so called ‘headlights’ rather than ‘rear view’ approach as advocated by Zeithaml, Bolton, Deighton, Keiningham, Lemon and Petersen (2008) is supported by this study.

The competitor orientation dimension requires continuous monitoring of competitive threats and management-wide awareness of competitive strengths and weaknesses. The need to respond rapidly to competitive threats appears to be a significant requirement. Certainly the kind of hubris shown by Research in Motion relative to its
leadership position in smartphones perhaps could be avoided by this approach to competition (Vogelstein, 2008).

This study indicates that employee orientation integrating a fair system of compensation and rewards and recognition backed up by top management, preemptive delivery of compensation and exceeding expectations will result in higher employee satisfaction. Team development programs to build trust and regular implementation of plans to improve job satisfaction also increased performance.

The shareholder orientation component is part of good performance. This study suggests that regular and frequent communications with shareholders is important. The ability to share long-range plans and to integrate shareholder input into such plans also enhances relationships, as reflected in overall firm performance. The use of social media to identify emerging concerns and communicate with stakeholders has recently emerged as a new business approach. Unfortunately, most of the social media items were eliminated in the two pilot studies so no meaningful implications are possible in this area. In the final analysis, giving priority to shareholder wealth creation is part of being shareholder oriented. Nevertheless, as discussed earlier, shareholder orientation contributed substantially less than did other stakeholder dimensions to XSO and thus to subsequent outcome measures. This suggests management should be guided by this finding in a balanced way.

The study provides some indication that prioritizing proactive customer and employee orientations would be beneficial to companies. Clearly, all essential stakeholders are important in a complementary way, but added emphasis on addressing
customers and employees proactively seems advisable since these orientations loaded somewhat more highly than the other factors in the main study.

Innovation orientation also appears to be a central pillar in enhancing both financial and non-financial performance. The integration of recent developments suggests that taking a long-term view of products and services is important. The results in this study suggest that maintaining technological leadership and delivering new products and services first are both important. The implication is that top management should emphasize and promote innovation and focus on establishing company-wide pervasiveness of innovation in all aspects of business. Developing teams focused on innovation supported by rewards and training augment innovation. It is noteworthy that maintaining an inventory of new product and service ideas also enhances innovation. Integrating innovative process aspects into a firm’s culture can result in high levels of innovation and consequent firm performance.

In brief, managers need to have a balanced outlook in relation to the essential stakeholders in accordance with theory (Clarkson, 1995). The core importance of innovation orientation was demonstrated, especially in light of modern practices (Denning, 2010). Ignoring innovation orientation could well jeopardize firm performance. It seems reasonable to consider that innovative processes potentially lead to sustainable competitive advantage in accordance with Barney’s (1991) resource-based view and conceptual suggestions by Harrison et al. (2010) and others, thereby resulting in improved firm performance.

The limited work in this study provides a diagnostic framework to help in assessing the level of extended stakeholder orientation and innovation characteristics.
Practitioners commented upon the diagnostic aspect early in the item development stage, and the empirical evidence appears to provide support for such a framework. The validated scales not only provide a framework for diagnostic work and some guidelines for prioritization, but also emphasize the complementary nature of the stakeholder dimensions involved in that all orientations are strong components of extended stakeholder orientation.

Individual stakeholder subscales were developed based on input from experts and practitioners, and care was taken to include updated concepts regarding social media. Scale purification procedures indicated that responses to social media related items were generally less consistent, even after conducting two pilot studies. This is perhaps due to both social media knowledge and usage for managerial purposes being in the early stages of adoption and not necessarily reflective of the importance of social media. In addition, the subscale indicators show that proactive considerations, for example, development of new forward-looking products and long-term planning for product improvements, are important and supplemental to responsive items such as responding to customer and employee satisfaction issues.

The insights available from a granular analysis of the indicator items can inform both theory and management practices. For example, the development of team enhancement programs for employees emerged as an important proactive management practice. This has an implication for learning organizations that are considered important for innovativeness (Hurley & Hult, 1998).
Limitations

A complex study with proactive elements being researched for the first time in the context of stakeholder orientation will have limitations. The major limitations relate to the use of self-report for data collection, the potential for common methods bias, the cross-sectional nature of this study, and the use of panel data. With almost 100 items initially, two pilot studies and a final survey, a study of this scope is time consuming to implement without professional panel data. This may be one of the reasons past empirical studies (Berman et al., 1999; Hillman et al., 2001; Darnall et al., 2010) in stakeholder orientation were limited to the use of proxy data from public firms. With the exception of the Yau et al. (2007) work based on data collected in China, a broad representation of stakeholders has not been directly addressed for scale development, with or without proactive considerations, nor has the question of innovation orientation been investigated. The literature suggests that stakeholder orientation will be useful to firms in the U.S. but no empirical studies have explored this area. This gap suggests the need for a comprehensive study across a broad cross-section of companies as executed herein. The time constraints and other considerations dictated the use of a professional panel to collect the data.

The advantages of panel data and professionally designed, customizable survey software are considerable. The professional format designs are visually appealing and tested for ease of use. The electronic point and click is fast, and despite the large number of questions, the longest surveys remained within the maximum 20-minute attention span criterion suggested by the data collection firm – Qualtrics. The added advantages related to organized electronic data for analysis, review and inspection are considerable. Without
the use of panel data, a study of the scope of the present one could not have been completed in the timeframe available.

The disadvantages of panel data relate to questions of authenticity of responders, self-selection bias and so-called straight liners or frivolous responders. Qualtrics is well respected in its field (personal communication with J. Hair, who has previously worked with the company as well as the senior management for over 30 years), experienced and cognizant of these issues, and the firm has stringent policies in place for quality control (personal communications, January 2012). Authenticity of responders is checked by Qualtrics by verifying emails and internet addresses. The firm also has a policy in place to monitor feedback from survey administrators if evidence of either frivolous responses or faked IDs emerges. For this study, a spot check was run in the few instances in which questions arose. The respondents provided company identities and the names and firm size data appeared valid. As to frivolous responses, careful spreadsheet programming and visual inspections enabled elimination of straight liners. The self-selection issue is integral to any administered survey mailed or online, except that in mailed surveys, non-response bias can be checked more closely. In panel data surveys, the non-response bias is more difficult to assess, but in this case, profiles over three separate surveys remained similar, which provides confidence that non-response bias was not a major issue. If non-response bias were a significant factor, the profiles would have differed substantially in each survey. Therefore, the use of electronic surveys utilizing professional panels was considered acceptable.

Self-report and single respondent common methods bias both deserve consideration. Self-report of performance measures has been established as acceptable by
previous studies (Dess & Robinson, 1984; Venkatraman & Ramanujam, 1986). No alternatives are available in studies such as the current one where a large number of private companies and anonymous responses are solicited. The common methods concern due to single respondent measures is again a practical limitation. It is often difficult to identify multiple respondents when the survey is anonymous. Where possible, the research design should avoid single respondents for independent and dependent variables or, failing that, introduce a time lag in responses, a marker construct unrelated to the dependent variable, or execute questionnaire design modifications, which was the approach of this study. Clarity of items also helps to reduce the likelihood of response bias. The clearly worded questions reduce the tendency to fall back on innate bias (DeVellis, 2011; Hair et al., 2010). In this research, the expert panels rigorously examined the question of clarity since temporal separation was not practical and innovation orientation was a separate concept from the dependent variable of firm performance.

The current study also obtained responses from multiple levels of management, from CEOs to vice-president, and this should assist in reducing common methods bias. For example, in the measurement model for XSO, innovation orientation and firm performance, the correlation between XSO and innovation orientation was higher than between XSO and firm performance. The innovation orientation scale, which was distinct from firm performance and separated in the questionnaire from the predictor variables by other questions, provides added assurance that common methods bias was minimized (Blocker et al., 2011; Lindell & Whitney, 2001; Podsakoff, et al., 2003; Podsakoff, MacKenzie, & Podsakoff, 2012).
Longitudinal studies are often preferable but must be conducted over several years or at least an extended period for meaningful results. Where respondents are anonymous, the possibility of collecting data over sequential years or an extended period is not feasible. Thus, cross-sectional studies for empirical work are generally the only practical approach.

A final limitation of this research was that all of the data was collected in the U.S. Management practices and business processes differ across countries globally. U.S. based research is justified because the country is a major global player. But a limitation is lack of knowledge as to the extent to which the current findings can be applied in other countries.

While limitations are evident, none are unusual or specific to this study. Given the strong interrelationships evident in the findings and the two pilot studies plus the extensive data analysis using exploratory and confirmatory factor analysis spanning 807 respondents, the results appear to be valid and meaningful.

Conclusion and Future Research Directions

This study set out to provide validated scales and empirical evidence of the influence of stakeholder orientation on innovation orientation and firm performance. The objectives were achieved. As suggested by various scholars, market orientation was used as a foundation to explore and develop a stakeholder orientation. The meaningful relationship to innovation orientation, and particularly to firm performance, suggests that, as with market orientation, a number of interrelationships may be better evaluated by including more stakeholders in the research. The array of validated scales and subscales
and the introduction of the extended stakeholder orientation concept should facilitate future research directions discussed next.

Future research that tests the scales developed over larger samples and with controls on industry and size may provide additional insights for managers and researchers. For example, how does firm age affect the degree of stakeholder orientation? Firm age may be an indicator of mature processes and well-embedded stakeholder practices developed over time. It would be valuable to see if age might mitigate innovation. Gender related issues also may shed some light on whether stakeholder orientations are affected by gender and how. The inclusion of women in senior management is becoming more prevalent and women’s perspectives may engender a different view. The types of firms that are more likely to be more innovation and stakeholder oriented needs to be examined, since this study shows that innovation orientation and extended stakeholder orientation are closely and positively correlated. Many firms face disruptive technologies as a matter of everyday reality; thus, being innovative may need to be an integral component of growth and even survival.

Previous work related to proactive market orientation including proactive concepts and innovation (Atuahene-Gima, 2005) has suggested that curvilinear effects may be present. For example, the study by Atuahene-Gima (2005) suggested that overemphasis on either proactive or responsive market orientation could result in reduced new product performance. Investigation of such effects would add to theory and help to provide guidance for research and management.

Further work to examine common methods bias problems would be helpful. In order to overcome common methods bias, access to databases with objective reported
measures or ability to access multiple or independent respondents for dependent variables would reduce or eliminate such concerns. It is noted, however, that short of publicly reported company data that would be limited to financial data in general, there is currently no known way of obtaining reliable objective performance data. Some proxy data may be available to overcome this problem and would be an area for future research.

The large number of items and multiple constructs related to stakeholders creates interactive effects and possible overlap. Therefore, one future direction would be to study one stakeholder group at a time to see what main effects emerge regarding responsive and proactive managerial emphasis. The Blocker et al. (2011) study on the role of proactive customer orientation in creating long-term customer value supported the importance of proactive orientation in a stakeholder group. Future research directions could also seek to address how stakeholder orientation impacts strategic decision-making in family firms. For instance, are family firms inherently more stakeholder oriented – are they generally more proactive, with employees for instance, given the inherent close-knit aspects of family firms (Miller & Le Breton-Miller, 2005)?

This study was limited to U.S. firms operating within a developed economy. How do companies in emerging economies with different cultural and institutional frameworks adapt to stakeholder imperatives? There is no research evident on the application of extended stakeholder orientation within emerging economies, such as India and China, which are driven by substantially higher growth potential than the U.S.-based firms (O’Neill & Stupnytska, 2009). From a cross-cultural point of view, another question is evidence of culturally and institutionally dependent proactive orientation. Firms in Germany, for example, have an institutional framework that is more demanding as to
how employees are regarded and compensated relative to the U.S. How do employee orientation and related proactive stance on the part of management compare across cultures in India, China and Western economies?

Evident trends regarding responsive and proactive stakeholder orientation and longitudinal studies could be valuable empirical research for management. As with market orientation, the possibilities to extend empirical work in stakeholder orientation to diverse organizational research is open for further investigation. Organizational learning and performance under technology and market turbulence are potentially useful research areas for the extended stakeholder orientation concept (Hurley & Hult, 1998; Paladino, 2008). As suggested by Harrison et al. (2010), well-balanced stakeholder orientations result in relationships that build trust and allow a firm to overcome market shifts. Employee orientation could lead to better organizational learning and be supported by a balanced view of all stakeholders as suggested by this study. Similarly, innovation orientation may mitigate effects of turbulence and facilitate survival. The effect of extended stakeholder orientation in these contexts could provide insights on firm survival and growth, including improved firm performance.

A number of potential outcomes – such as the prevalence of an environmentally sensitive climate and a learning organization with consequent competitive advantages – could be investigated by including constructs developed by other researchers (Hillman & Keim, 2001; Hurley & Hult, 1998). In general, every research area within the market orientation literature could be explored further utilizing the concepts developed in this study since they are extensions of market orientation. The subject areas include innovation and cross-cultural studies as well as influence of top management leadership
and entrepreneurial orientation. Thus, a significant potential for future research in parallel with work in market orientation may be fruitful (Grinstein, 2008; Kirca et al., 2005).

While a study of this scope has definite limitations, the results are encouragingly strong as opposed to demonstrating marginal relationships. It is hoped that the scales developed and theoretical and management implications discussed could be helpful for more in-depth studies and applications. In line with Freeman (1984) and the tenets of stakeholder theory about the critical need to pay attention to all stakeholders in a balanced manner for long-term success (Clarkson, 1995), it is hoped that the insights developed here may be useful for both strategic management applications and research.
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orientation and as antecedents to innovation and customer value. *Industrial

conceptual-level empirical investigation of the resource-based view of the firm.


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innovative outcomes in times of turbulence. *Journal of Product Innovation


Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., Purnell, L., & de Colle, S.


Appendix 1 – Market Orientation: Related Studies

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<th>Authors</th>
<th>Focus and Domain</th>
<th>Concept and Research Design</th>
<th>Scale Development – Sample Frame and Findings</th>
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<tbody>
<tr>
<td>Narver and Slater (1990).</td>
<td>“Market orientation (MO) is the organization culture … that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business (p. 21).” MO conceptualized as one dimension construct composed of the 3 components operationalized.</td>
<td>Three behavioral components – customer orientation, competitor orientation and interfunctional coordination with long-term focus and profitability as decision criteria. Customer and competitor orientation seen as activities involved in obtaining and disseminating information about the two stakeholders. The third component seeks to evaluate the activities which coordinate firm response. Resulted in 15-item scale.</td>
<td>• 140 strategic business units (SBUs) of large forest products division of one corporation. • 371 respondents – reliability exceeding 0.7. Split half to establish construct reliability and validity. • Showed market orientation – average of 6 customer, 4 competitor, and 5 organization responses – 15 items correlate at 0.34 level to return on assets. • Limitation was one company offset by multiple responses from same SBUs.</td>
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<td>Kohli and Jaworski (1990).</td>
<td>“Market orientation is the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it” (p. 6).</td>
<td>Concept study pointing out the importance of market orientation impact on strategy, employees and customers. Assist in clarification of domain and factors involved. Importantly, suggested “market intelligence includes</td>
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<td></td>
<td></td>
<td>Conceptual study only – no empirical work undertaken.</td>
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Market intelligence refers to scanning of customers’ needs and industry changes plus attention to a broader set of forces such as government regulation, competitors, and environmental forces—note these are remarkably close to stakeholder concepts.

anticipating customer needs…because it often takes years for an organization to develop a new product offering” (p. 4).

| Jaworski and Kohli (1993). | Extended the Jaworski et al. (1990) study to antecedents and consequences. Added top management emphasis and risk profile, and employee interdepartmental connectedness to antecedents to MO. | Developed scales for intelligence generation, dissemination and response design or planning and implementation. Refined the idea of responsiveness to be two distinct components—response design and response implementation, i.e., developing plans and implementing based on market intelligence. Resulted in 32-item scale. | • Sample 1 included 222 SBUs with 2 respondents per SBU (average score used) with a few single respondent cases. • Sample 2 for validation was 230 responses from AMA membership at management levels. • Used summated 32-item MO scale with 4 components of intelligence gathering, dissemination and responsiveness in design and implementation. • Results showed positive correlation of MO to subjective overall performance measure. |

<p>| Kohli, Jaworski and Kumar (1993). | Integrated earlier studies. Importantly, expanded the intelligence generation aspect to include customer needs/preferences and influential forces such as competition and environmental factors perceived by | Refined earlier work to operationalize MO as composed of 3 component factors representing earlier conceptualization of intelligence generation, dissemination and responsiveness. Resulted in a parsimonious 20 | • Used a 2-stage study. Stage 1 was based on 230 marketing executives as single respondents—resulted in refinement of earlier 32 items to 20 items. • Stage 2 was 229 SBUs from 102 firms with a mix of marketing and non-marketing executives from each SBU resulting in |</p>
<table>
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<tr>
<th>Study / Source</th>
<th>Description/Methodology</th>
<th>Results/Findings</th>
<th>Notes</th>
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<tr>
<td>Deshpande, Farley and Webster (1993).</td>
<td>Emphasize market culture and customer orientation with a view to creating competitive advantage and market superiority.</td>
<td>Developed 9-point customer focused scale and validated across Japanese management. Non-US study explored cultural dimensions.</td>
<td>•Cross-cultural study used mainly 9-item customer orientation scale similar to Narver &amp; Slater (1990). Also cultural 16 item and innovativeness 5 item scales. •50 firms and their customers with 2 respondents each. Study limited to Japan. •Showed customer orientation as reported by buyers as important and positive to performance versus self-report of customer orientation. Innovativeness was correlated at 0.52 level to firm performance.</td>
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<tr>
<td>Deshpande and Farley (1998).</td>
<td>Synthesis of above studies plus Deshpande et al. (1993) customer orientation scale. Generalizability cross industry and cross national emphasized.</td>
<td>Resulted in a robust 10 item MORTN scale largely customer facing and subsuming issues such as competitor orientation and intelligence dissemination. Variance explained was superior and parsimony was achieved.</td>
<td>•Sample frame was 82 marketing executives from 27 firms in the USA. •Closely correlated to Narver &amp; Slater (1990) and Kohli et al. (1993) but more parsimonious 10 item scale for measuring market orientation as a single construct.</td>
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<tr>
<td>Matsuno, Mentzer and Rentz (2000).</td>
<td>Refine work done by Jaworski et al. (1993). Domain remained the same</td>
<td>Refined to a 22-item scale and established market orientation as a second order factor</td>
<td>•Used 2-step pretest and scale purification. Pretest 1 sample was 100 marketing executives from</td>
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<td>Research</td>
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<tr>
<td>Kohli et al. (1993) MARKOR scale.</td>
<td>U.S. manufacturing firms. Pretest 2 was 400 marketing executives from U.S. manufacturers. Pretests resulted in factor structure similar to Kohli et al. (1993) and 22-item scale. •Carried out comparative study between Kohli et al. MARKOR (n=264) and proposed MO (n=275) from marketing executives of U.S. firms. Showed 2nd Order 22-point scale of market orientation as reliable scale. Included scale items related to environment, government and social trends. Used subjective financial performance measures. •Results supported MO as positive to firm performance more predictive than MARKOR scale.</td>
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<td>Homburg and Pfleffer (2000).</td>
<td>Emphasized cultural aspects such as openness of communications and responsibility of employees as underlying drivers of market orientation. Developed complex multi-layered scales for values, norms and artifacts (expressions of underlying values and norms) indicative of market orientation. Some concepts such as employee responsibility and teamwork helpful in designing new items. Unwieldy number of 62 items in total.</td>
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| Narver, Slater and MacLachlan (2004). | Emphasized the need to serve both expressed and latent – unarticulated and demonstrated distinctiveness of proactive concepts within market. •120 respondents from 41 SBUs of 25 Marketing Science Institute companies. Multiple
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<th>Study</th>
<th>Description</th>
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<tr>
<td>Respondents per SBU. •Broad diversity in industries and size by revenues ($1mm to $1B) •For proactive items found 8 items through EFA as unidimensional proactive market orientation. Used 7 items from Deshpande &amp; Farley (1998) as responsive market orientation. •Showed both responsive and proactive market orientation positive relation to firm performance and innovation, proactive MO more so.</td>
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<tr>
<td>Hult et al. (2005).</td>
<td>Integrate views on Narver et al. views on market orientation (MO) and Kohli et al. on organizational responsiveness.</td>
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<td>Introduce the concept of market information processing (MIP) – the organization wide generation and assimilation of market information to a shared understanding leading to organization responsiveness. Suggest that MO and MIP are positively correlated to organization responsiveness leading to superior firm performance.</td>
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<td>•217 responses from marketing executives of 1000+ public firms. •Used objective return on assets, investment and equity financial dependent measures. •Used selected items (2 to 3) from previous MO related studies. •Empirical study indicated organizational responsiveness mediated both MO and MIP to positively correlate to firm performance.</td>
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<tr>
<td>Blocker et al. (2011).</td>
<td>The role of proactive customer orientation in value creation in multinational context. Develop proactive dimension of market</td>
</tr>
<tr>
<td>Developed a buyer side multinational evaluation of focal firm’s customer orientation. Proactive focused on forward looking anticipatory</td>
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<tr>
<td>•Novel sample frame approach. Used qualitative interviews with 10 managers in 10 firms in diverse industries. Developed framework for responsive and proactive</td>
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metrics. Responsive measures followed Narver & Slater (1990). Proactive focused on provision of solutions and innovations before customer asked or understood need.

- Managers at customer firms were asked to evaluate vendors for degree of responsiveness and proactiveness.
- 800 respondents from 5 countries. EFA with 75 and 104 respondents in 2 steps established 2 factor responsive and proactive customer orientations.
- Showed responsive and proactive both important but where customers face more change, proactive contributes more to desired customer value.
## Appendix 2 – Stakeholder Theory: Representative Empirical Studies Related to Multiple Stakeholders

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<thead>
<tr>
<th>Author</th>
<th>Study focus</th>
<th>Approach and scales used/developed</th>
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<tr>
<td>Berman et al. (1999).</td>
<td>Considered firm stakeholder relations: employee relations, diversity, community, environment and product safety.</td>
<td><em>Fortune 100</em> as sample – used proxy data to show stakeholder relations improve financial performance. No specific scale items from a managerial standpoint.</td>
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<tr>
<td>Greenley and Foxall (1996, 1997, 1998).</td>
<td>Addressed consumer/customer, employees, shareholders, and unions as stakeholder groups of interest.</td>
<td>Empirical study in the UK with no formal validated scales apparently developed. Asked managers how important individual stakeholder groups were relative to one another, and to dimensions such as planning and research. Suggested corporate culture towards customers was a driver.</td>
</tr>
<tr>
<td>Greenley et al. (2004, 2005).</td>
<td>Introduced customers, competitors, employees and shareholders as ‘essential’ stakeholders of interest.</td>
<td>Developed stakeholder priority profiles then addressed relative focus on dimensions such as planning and market share emphasis at high level. Helpfully integrated market orientation, and developed employee and shareholder items.</td>
</tr>
<tr>
<td>Hillman and Keim (2001).</td>
<td>Stakeholder management – attention to the relationships – with primary stakeholders: customers, employees, shareholders, community and environment as distinct from corporate social responsibility.</td>
<td>Used Kinder, Lydenberg, Domini public databases to investigate firm performance and stakeholders in S&amp;P 500 companies. The high-level KLD measures serve as proxy measures to suggest relationship with long-term value creation. Showed stakeholder relationship management is positively correlated to long-term value creation. Demonstrated that attention to social issues is negatively correlated to value creation.</td>
</tr>
<tr>
<td>Darnall, Henriques and Sadorsky (2010).</td>
<td>Investigated proactive environmental practices – innovations and processes – and stakeholder relationship with firm performance.</td>
<td>Used public survey data to show proactive responses in the environmental context are related to management perception of stakeholder pressure. Smaller firms are more responsive to stakeholder pressure of necessity. No scales apparent.</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Methodology/Findings</td>
<td></td>
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<tr>
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</tr>
<tr>
<td>Gonzalez-Padron (2007).</td>
<td>Investigated stakeholder orientation as having a cultural basis – norms and beliefs – related to primary stakeholders. Distinguished stakeholder responsiveness as actions and policies implementing orientation. Used annual reports text analysis to identify importance of stakeholders – customers, employees, suppliers, community etc. by looking at code words such as values, soliciting opinions, focus. Essentially secondary proxy data with an interesting approach. Showed customer and supplier orientation enhanced stakeholder responsiveness especially when globalization effects considered. No specific scales but useful in linking stakeholder orientation and responsiveness to performance measures.</td>
<td></td>
</tr>
<tr>
<td>Luk, Yau et al. (2005).</td>
<td>Used Narver &amp; Slater (1990) items and other items related to employees and shareholders developed by Greenley et al. (see above) and Lings et al. (2005). Provided limited support for stakeholder orientation items/scales in relation to firm performance in service companies in China.</td>
<td></td>
</tr>
<tr>
<td>Yau et al. (2007).</td>
<td>Investigated essential stakeholder orientations in relation to unidimensional stakeholder orientation construct. Used Narver &amp; Slater (1990) items for customer and competitor orientation. Adapted Lings &amp; Greenley, (2005) and Greenley et al. (2004, 2005) for shareholder orientation. Provided useful baseline with validated scales in China context; showed 4 essential stakeholder components to SO; showed valid unidimensionality of stakeholder orientation; and positive correlation to firm performance.</td>
<td></td>
</tr>
<tr>
<td>Maignan et al. (2011).</td>
<td>Develop stakeholder orientation by building on Homburg et al. (2000) MO view of cultural values, norms and artifacts in combination with behavioral intelligence gathering, dissemination and action as basis for stakeholder orientation. Provide support for extending MO concepts to SO. The approach of combining cultural and behavioral items to estimate SO for the stakeholder groups – customers, employees, suppliers, shareholders, regulators and committees - provides an alternative formulation of stakeholder orientation which incorporates issues related to ethics and corporate social responsibility. Thus this formulation compared to Yau/Greenley et al. for essential stakeholders is a distinct viewpoint – complementary in some respects.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3 – Summary of Extant Scales Parts A - F

Part A (from Narver et al., 2004)

Proactive Market Orientation
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.

Responsive Market Orientation
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.

**Innovation Orientation**

1. Competitors in this market recognize us as innovation leaders.
2. We are recognized for being at the leading edge of technological innovation.
3. We are first to market with new products or services.

**Summary of Extant Scales Part B (from Yau et al., 2007)**

**Customer orientation**

1. Competitive strategies are based on understanding customer needs
2. Customer satisfaction is systematically and frequently assessed.
3. Our commitment of serving customer needs is closely monitored.
4. Close attention is given to after sales service.
5. Our objectives and strategies are driven by the creation of customer satisfaction.

**Competitor orientation**

6. Sales people share information about competitors. 0.769
7. Top management regularly discuss competitors’ strengths and weaknesses. 0.613
8. We achieve repaid response to competitive actions. 0.700
9. Customers are targeted when we have an opportunity for competitive advantage. 0.454

**Shareholder orientation**

10. Our objectives are driven by creating shareholder wealth. 0.594
11. Senior managers have regular meetings with shareholders. 0.808
12. We regularly compare our share value to that of our competitors. 0.709
13. We regularly carry out public relations aimed at shareholders. 0.735
14. Designated managers have responsibility for aiming to satisfy shareholders’ interests. 0.617

**Employee orientation**

15. We have regular staff appraisals in which we discuss employees’ needs. 0.768
16. We have regular staff meetings with employees. 0.814
17. As a manager, I try to find out the true feelings of my staff about their jobs. 0.820
18. We survey staff at least once each year to assess their attitudes to their work.

Summary of Extant Scales Part C (from Blocker et al., 2011)

Construct Measurement Items
Respondents marked their agreement on a scale from 1 (strongly disagree) to 7 (strongly agree). Except where noted, prompts included: "Compared to what we expect from our company's best providers, this service provider….

Responsive Customer Orientation (newly developed measure).
1. Always responds effectively when we ask them to make changes.
2. Takes immediate action when we tell them we've changed what we want from the relationship.
3. Reacts quickly to our requests for changes.
4. Is always flexible to adapt to changes we ask for.
5. Never stops short of fully accommodating our requests for changes.
6. Is always willing to accommodate our requests for changes.

Proactive Customer Orientation (newly developed measure)
1. Excels at anticipating changes in what we need from them before we even ask.
2. Seems to spend time studying changes in our business environment so they can exercise better foresight about our future needs.
3. Successfully anticipates changes in our needs.
4. Presents new solutions to us that we actually need but did not think to ask about.
5. Is always looking for clues that might reveal changes in what we value beyond what we currently ask of them.
6. Presents new ideas to us that help us keep pace with our changing environment.

Summary of Extant Scales Part D (Competitor and Employee Orientations)

Competitor Orientation (from Sorensen 2009)
1. We diagnose competitors’ goals
2. We track the performance of key competitors
3. We identify the areas where the key competitors have succeeded or failed
4. We attempt to identify competitors’ assumptions about themselves and our industry.
5. Top management regularly discusses competitors’ strengths and weaknesses.
6. Our salespeople regularly share information within our business concerning competitors’ activities.
7. All of our managers understand how every business function can contribute to information on competitive activities.
8. We target customers where we have an opportunity for competitive advantage.
9. We rapidly respond to competitive actions that threaten us.

**Employee orientation (from Zhang, 2010)**
1. In this organization people are rewarded in proportion to the excellence of their job performance.
2. We have a promotion system here that helps the best person to rise to the top.
3. This organization is characterized by a relaxed, easygoing working climate.
4. There is a lot of warmth in the relationships between management and workers in this organization.
5. The philosophy of our management emphasizes the human factor, how people feel, etc.
6. You don’t get much sympathy form higher-ups in this organization if you make a mistake.

**Reference Summary of Extant Scales for Item Generation Part E**

**Market Orientation Scale – MORTN (from Deshpande & Farley, 1998)**
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 the quality of our products and services.
10. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.


A. (N-S SCALE)
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 an 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&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 of 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.

B. (D-F-W SCALE)
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 products/services are the best in the business.
9. I believe this business exists primarily to serve customers.

C. (K-J-K SCALE)
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.
2. In this business unit, we do a lot of in-house market research.
3. We are slow to detect changes in our customers’ product preferences. (R)
4. We poll end users at least once a year to assess the quality of our products and services.
5. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, regulation). (R)
6. We periodically review the likely effect of changes in our business environment (e.g., regulation) on customers
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.

11. When one department finds out something important about competitors, it is slow to alert other departments. (R)

12. It takes us forever to decide how to respond to our competitors’ price changes. (R)

13. For one reason or another we tend to ignore changes in our customers’ product or service needs. (R)

14. We periodically review our product development efforts to ensure that they are in line with what customers want.

15. Several departments get together periodically to plan a response to changes taking place in our business environment.

16. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.

17. The activities of the different departments in this business unit are well coordinated.

18. Customer complaints fall on deaf ears in this business unit. (R)

19. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. (R)

20. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so. (R) = Reverse-scored

Measures of Performance

A. (N-S SCALE)

This section includes several measures of business unit Performance. Please give your own best estimate rather than attempting to ascertain an exact value from other sources. Rate how well your business unit has performed relative to all other competitors in your principal served market segment (PSMS) over the past year.
**Example:** If you believe that your sales growth is greater than that of approximately 60% of all competitors in your PSMS, rate yourself a 5 for Sales Growth.

- Customer Retention
- Sales Growth
- Return on investment
- Return on Sales

*For this study, we consider CROI, ROI, ROA, and RONA to be equivalent.

**B. (D-F-W SCALE)**

Please circle the appropriate answer.

Relative to our business unit’s largest competitor, we:

(a) Are much less profitable; Are less profitable; Are about equally profitable; Are more profitable; Are significantly more profitable.

(b) Are much larger; Are larger; Are about the same; Are smaller; Are much smaller size (R).

(c) Have a much larger market share; Have a larger market share; About the same market share, Have a smaller market share; Have a much smaller market share (R).

(d) Are growing much more slowly; Are growing more slowly; Are growing at about the same rate; Are growing faster Are growing much faster. (R) = Reverse-scored

**Reference Summary of Extant Scales Part F supplemental (from Blocker et al. 2011)**

**Offer Quality (Homburg et al., 2005; Ulaga and Eggert, 2006).**

1. Exceeds our standards for quality products and services.
2. Consistently provides quality products and services to us over time.
3. Provides us with excellent quality products and services.
Personal Interaction (Gremler and Gwinner, 2000; Ulaga and Eggert, 2006).
1. Maintains excellent personal interaction with our people.
2. Has built a very good working relationship with us.
3. Is very easy to work with.

Service Support (Ulaga and Eggert, 2006).
1. Offers excellent support services to help us deal with day-to-day issues.
2. Provides excellent support services.
3. Offers superior support services that always provide the appropriate information right when we need it.

Customer Desired Value Change Intensity (Flint et al., 2002).
1. Our needs from this provider are constantly changing.
2. What we want from this service provider changes very rapidly.
3. Due to significant changes we are experiencing, we often ask this provider to do things drastically different from the way they have done them in the past.
4. Changes in what we want from this provider reflect large shifts in our business needs for them.
5. Due to the rapid changes we are experiencing, we want this provider to make a large number of modifications in their services.

Customer Value (Gao et al. 2005; Ulaga and Eggert, 2006).
1. Creates superior value for us when comparing all the costs versus benefits in the relationship.
2. Considering the costs of doing business with this service provider. We gain a lot in our overall relationship with them.
3. The benefits we gain in our relationship with this provider far outweigh the costs.
4. Our company gets significant customer value from this provider relationship.

Satisfaction (Lam et al., 2004).
1. In general, my company is very satisfied with the services offered by this provider.
2. Overall, my company is very satisfied with its relationship with this provider.
3. Overall, how satisfied is your company with this provider - (extremely dissatisfied to extremely satisfied).

**Loyalty (Doney and Cannon, 1997) (Extremely unlikely-Extremely likely).**

1. Given that there is a need, we intend to continue doing business with this provider for the foreseeable future.
2. Given that there is a need, how likely is it that your firm will continue doing business with this provider during the next year?
3. Given that there is a need, how likely is it that your firm will continue doing business with this provider during the next 3 to 5 years?

**Organizational Communication Effectiveness (Judge and Elenkov, 2005).**

1. The flow of communication in our company between top executives, managers, and staff is highly effective.
2. In our company communication always occurs in a very timely fashion.
3. Communication flows effectively across our company's organizational and functional units.
4. Transnational Relationship Structure: This provider maintains in-country employees to service our company.
5. Global Relationship Scope: This provider delivers services to our company in more than one country.
Appendix 4 – Pilot 1 Survey: Responsive and Proactive Items for Stakeholder Groups, Innovation Orientation and Firm Performance Items

Management Perspectives Survey

Please take a few minutes to answer the survey questions below. There are no right or wrong answers. The estimated time to complete the survey is approximately 20 minutes. You may save and return to the survey in the event you are called away. Many issues explored in this survey are being examined for the first time and will be very useful in improving management decision making. Your thoughtful and complete responses are important. Confidentiality of all responses is assured. When answering the questions, please assume you are taking the perspective of the management team in your company. For example, when you see the term 'we' or 'our' you should answer in a way that represents your estimation of the management team's point of view.

We thank you.

Your responses are very much appreciated. Your participation is voluntary and may be withdrawn without penalty. The research has no risks to the respondent. By completing this survey you are agreeing to participation in the research process.

Survey filter questions – responders required to be Vice-President or above and 30 or more employees.

1. Your position in this firm - choose one:
   
   [ ] CEO/COO/CFO
   [ ] Other C-level
   [ ] Vice-President or above
2. How many employees are in your organization?

**Customer Orientation (Note: section headings not in actual electronic survey)**

The following statements represent actions your management team may or may not have taken in attempting to better serve your customers. Please indicate the extent to which the management team would Agree or Disagree that these actions have been taken in your organization. Please use the 10 point slider scale to respond (Note: ‘select’ denotes point and click continuous slider scale from strongly disagree to strongly agree).

**Responsive Customer Orientation**

RCst1_ We develop our business objectives to primarily achieve customer satisfaction.-Select

RCst2_ We constantly monitor our level of commitment to serving customer needs.-Select

RCst3_ We freely communicate information with our management about all our experiences regarding customers.-Select

RCst4_ Our strategy for competitive advantage is based on our understanding of customers’ needs.-Select

RCst5_ We measure customer satisfaction frequently.-Select

RCst6_ We regularly measure our quality of customer service.-Select

RCst7_ We work to be more customer focused than our competitors.-Select

RCst8_ We ensure our business exists primarily to serve customers.-Select

RCst9_ We poll customers often to assess the quality of our products and services.-Select

RCst10_ We provide user-friendly ways on our website for customers to provide feedback.-Select

RCst11_ Data on customer satisfaction are disseminated regularly to all levels of management.-Select
We use social media such as Facebook and/or Twitter to make it convenient for customers to provide comments. -Select

We ensure prompt response to all customer feedback. -Select

**Proactive Customer Orientation**

We help our customers anticipate developments in their markets. -Select

We continuously try to discover additional needs of our customers of which they may be unaware. -Select

We incorporate solutions to customer needs before they are able to tell us about their preferences. -Select

We frequently brainstorm on how customers use our products and services. -Select

We innovate even at the risk of making our own products obsolete. -Select

We search for opportunities in areas where customers have a difficult time expressing their needs. -Select

We use customer feedback data trends to deliver improvements in our products and services. -Select

We are highly focused on providing a superior customer experience. -Select

We often test new service improvements in selected markets. -Select

We incentivize employees to develop new product concepts. -Select

We forecast trends to determine what current users will need in the future. -Select

We often test new products in selected markets. -Select

**Competitor Orientation**

The following statements represent actions your management team may or may not have taken in attempting to be more competitive in the market place. Please indicate the extent to which the management team would Agree or Disagree that these actions have been taken. Please use the 7-point scale to respond.

**Responsive Competitor Orientation**

We regularly gather information on competitors' goals.
RCmp2_ We often track performance of key competitors.
RCmp3_ We regularly identify areas where key competitors have succeeded or failed.
RCmp4_ We often attempt to identify competitors’ assumptions about our industry.
RCmp5_ Top management regularly discusses competitors’ strengths and weaknesses.
RCmp6_ Our salespeople regularly provide feedback on competitors to management.
RCmp7_ We rapidly respond to competitor actions that threaten us.
RCmp8_ We regularly look for market opportunities that do not threaten competitors.
RCmp9_ We frequently monitor social media to obtain information on our competitors.

**Proactive Competitor Orientation**

PCmp1_ We frequently develop plans to stay ahead of our competitors.
PCmp2_ We often create teams to analyze competitors' products and services.
PCmp3_ We regularly analyze reports on our competitors' position to develop specific future action plans.
PCmp4_ Our sales and marketing teams frequently help develop plans for improving products and services.
PCmp5_ Top management regularly creates plans to exploit competitor weaknesses.
PCmp6_ We often target customers where we may have competitive advantages.
PCmp7_ We have a designated team to regularly provide competitor information for management action.
PCmp8_ Top management regularly creates plans to respond to competitor strengths.
PCmp9_ We generally implement technology advances in our products and services before our competitors do.
PCmp10_ We often develop strategic plans for markets which have few competitive threats.

**Employee Orientation**
The following statements represent actions your management team may or may not have taken in attempting to meet employee needs. Please indicate the extent to which the
management team would Agree or Disagree that these actions have been taken. Please use the 10-point slider scale to respond.

**Responsive Employee Orientation**

REmp1. We ensure people in this organization are rewarded based on their job performance. - Select

REmp2. The management team encourages a relaxed working climate. - Select

REmp3. We ensure a promotion system that helps the most capable person rise to the top. - Select

REmp4. The management team and workers in this organization develop trust in one another - Select

REmp5. We provide a user-friendly confidential website for employees to provide feedback to management. - Select

REmp6. The philosophy of our management team is based on meeting employees' needs. - Select

REmp7. You don’t get much sympathy from management in this organization if you make a mistake. - Select

REmp8. Management responds promptly to employee feedback. - Select

**Proactive Employee Orientation**

PEmp1. We carry out regular staff appraisals to determine merit based compensation. - Select

PEmp2. We routinely identify high potential employees for fast track development. - Select

PEmp3. Top management awards incentive pay that could be more than base pay to high performers. - Select

PEmp4. We routinely invite feedback on employee needs to determine areas of improvement. - Select

PEmp5. We maintain an employee bonus pool with cash and/or options incentives. - Select
PEmp6_ We analyze feedback from employees to quickly implement improvements. -Select
PEmp7_ Top management regularly examines compensation plans to ensure our plans are better than competition -Select
PEmp8_ Top management meets regularly to develop plans to improve employee job satisfaction. -Select
PEmp9_ We provide staff training to create a trust based working climate. -Select
PEmp10_ We provide counseling for employees when they make mistakes. -Select
PEmp11_ We provide training to all employees for personal development. -Select
PEmp12_ We implement industry best practices to improve working conditions for our employees. -Select
PEmp13_ We regularly obtain information from human resource organizations to identify new employee benefits. -Select

Shareholder Orientation
The following statements represent actions your management team may or may not have taken in attempting to serve your shareholders. Please indicate the extent to which the management team would Agree or Disagree that these actions have been taken. Please use the 7-point scale to respond.

Responsive Shareholder orientation
RShr1_ Our objectives are driven by creating shareholder wealth.
RShr2_ Our senior managers have frequent meetings with shareholders.
RShr3_ Our senior managers routinely meet with investment analysts to provide information.
RShr4_ We regularly compare our share value to that of our competitors.
RShr5_ We regularly carry out public relations aimed at shareholders.
RShr6_ Designated managers are given responsibility for satisfying shareholder interests.
Proactive Shareholder Orientation

PShr1_We often gather comparative information about our competitors to plan superior returns for our shareholders.

PShr2_We meet with shareholders regularly to develop plans to address their questions and concerns.

PShr3_We prioritize shareholder wealth in our strategic planning.

PShr4_We share our long-range plans and directions with shareholders.

PShr5_We maintain a user-friendly investor relations website that encourages comments and questions.

PShr6_We often examine feedback from our shareholders to develop plans to improve shareholder relations.

PShr7_Our website is updated regularly with comprehensive management communications.

PShr8_We frequently obtain insights from industry sector analysts to use in our strategic planning.

PShr9_We often use social media such as Facebook and/or Twitter to respond to emerging concerns expressed.

Innovation Orientation

The following statements relate to possible results or outcomes of your management team's efforts and also relate to representative characteristics your management team and firm may or may not have with regard to innovation. Please indicate the extent to which the management team would Agree or Disagree with the results and characteristics. Please use the 10-point slider scale to respond.

Inn1 Competitors in this market recognize us as innovation leaders. -Select

Inn2 Our CEO continually emphasizes innovations in all aspects of our business. -Select

Inn3 We are recognized for being at the leading edge of technological innovation. -Select

Inn4 We are first to market with new products and services. -Select

Inn5 We continually monitor technological developments to incorporate in our products and services.-Select
Inn6 We ensure news of innovations is disseminated regularly to all levels of our company.-Select
Inn7 We receive training in developing innovative products and services.-Select
Inn8 We have a designated group to regularly provide research on new product and services ideas for management -Select
Inn9 We regularly create an inventory of ideas to brainstorm development of new products and services.-Select
Inn10 We provide very substantial recognition and/or rewards to employees/teams for innovations.-Select
Inn11 We regularly analyze developments outside our primary business for product and services ideas to incorporate in our strategic plans. -Select
Inn12 We take a long-term view of market requirements for new products and services.-Select

**Firm Performance**

The following statements represent possible results or outcomes of you management team's efforts to deliver firm performance. Please indicate the extent to which you are Satisfied or Dissatisfied with these outcomes. Please use the 100-point scale to respond.

1. How satisfied are you with your firm's performance in terms of the following:-Sales growth
2. How satisfied are you with your firm's performance in terms of the following:-Profitability
3. How satisfied are you with your firm's performance in terms of the following:-Market share
4. How satisfied are you with your firm's performance in terms of the following:-Customer satisfaction
5. How satisfied are you with your firm's performance in terms of the following:-Employee job satisfaction
6. How satisfied are you with your firm's performance in terms of the following:-Overall firm performance relative to your competitors
### Appendix 5 – Pilot 1 EFA Analysis 5 Factor Solution

#### Pilot 1 - Overall Scale Alpha - 0.985

<table>
<thead>
<tr>
<th>Shareholder Orientation</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>PShr6_ We often examine feedback from our shareholders to develop plans to improve shareholder relations.</td>
<td>0.859</td>
</tr>
<tr>
<td>PShr3_ We prioritize shareholder wealth in our strategic planning.</td>
<td>0.858</td>
</tr>
<tr>
<td>RShr6_ Designated managers are given responsibility for satisfying shareholder interests.</td>
<td>0.840</td>
</tr>
<tr>
<td>PShr4_ We share our long-range plans and directions with shareholders.</td>
<td>0.829</td>
</tr>
<tr>
<td>RShr3_ Our senior managers routinely meet with investment analysts to provide information.</td>
<td>0.811</td>
</tr>
<tr>
<td>RShr5_ We regularly carry out public relations aimed at shareholders.</td>
<td>0.807</td>
</tr>
<tr>
<td>PShr2_ We meet with shareholders regularly to develop plans to address their questions and concerns.</td>
<td>0.800</td>
</tr>
<tr>
<td>RShr4_ We regularly compare our share value to that of our competitors.</td>
<td>0.778</td>
</tr>
<tr>
<td>RShr1_ Our objectives are driven by creating shareholder wealth.</td>
<td>0.756</td>
</tr>
<tr>
<td>PShr7_ website is updated regularly with comprehensive management communications.</td>
<td>0.731</td>
</tr>
<tr>
<td>RShr2_ Our senior managers have frequent meetings with shareholders.</td>
<td>0.727</td>
</tr>
<tr>
<td>PShr5_ We maintain a user-friendly investor relations website that encourages comments and questions.</td>
<td>0.716</td>
</tr>
</tbody>
</table>
PShr1. We often gather comparative information about our competitors to plan superior returns for our shareholders. 0.663

PShr9. We often use social media such as Facebook and/or Twitter to respond to emerging concerns expressed. 0.621

PShr8. We frequently obtain insights from industry sector analysts to use in our strategic planning. 0.521

RCmp9. We frequently monitor social media to obtain information on our competitors. 0.521

REmp7. You don’t get much sympathy from management in this organization if you make a mistake.

**Responsive Customer Orientation**

PCst8. We are highly focused on providing a superior customer experience.-Select 0.814

RCst7. We work to be more customer focused than our competitors.-Select 0.805

RCst3. We freely communicate information with our management about all our experiences regarding customers.-Select 0.791

RCst8. We ensure our business exists primarily to serve customers.-Select 0.778

RCst2. We constantly monitor our level of commitment to serving customer needs.-Select 0.749

REmp4. The management team and workers in this organization develop trust in one another.-Select 0.748

RCst4. Our strategy for competitive advantage is based on our understanding of customers’ needs.-Select 0.726

REmp1. We ensure people in this organization are rewarded based on their job performance.-Select 0.675

RCst5. We measure customer satisfaction frequently.-Select 0.647

REmp3. We ensure a promotion system that helps the most capable person rise to the top.-Select 0.636

RCst1. We develop our business objectives to primarily achieve customer satisfaction.-Select 0.591

RCst6. We regularly measure our quality of customer service.-Select 0.586
RCst13_ We ensure prompt response to all customer feedback. - Select

PEmp1_ We carry out regular staff appraisals to determine merit based compensation. - Select

RCst9_ We poll customers often to assess the quality of our products and services. - Select

RCst11_ Data on customer satisfaction are disseminated regularly to all levels of management. - Select

**Competitor Orientation**

RCmp6_ Our salespeople regularly provide feedback on competitors to management.

RCmp4_ We often attempt to identify competitors’ assumptions about our industry.

RCmp5_ Top management regularly discusses competitors’ strengths and weaknesses.

PCmp3_ We regularly analyze reports on our competitors' position to develop specific future action plans.

RCmp1_ We regularly gather information on competitors' goals.

RCmp2_ We often track performance of key competitors.

RCmp7_ We rapidly respond to competitor actions that threaten us.

PCmp4_ Our sales and marketing teams frequently help develop plans for improving products and services.

RCmp3_ We regularly identify areas where key competitors have succeeded or failed.

PCmp5_ Top management regularly creates plans to exploit competitor weaknesses.

PCmp8_ Top management regularly creates plans to respond to competitor strengths.

PCmp1_ We frequently develop plans to stay ahead of our competitors.
We often target customers where we may have competitive advantages.

We often create teams to analyze competitors' products and services.

We often develop strategic plans for markets which have few competitive threats.

We have a designated team to regularly provide competitor information for management action.

**Employee Orientation**

We provide training to all employees for personal development. -Select

We regularly obtain information from human resource organizations to identify new employee benefits.-Select

Top management meets regularly to develop plans to improve employee job satisfaction. -Select

Top management regularly examines compensation plans to ensure our plans are better than competition.-Select

The philosophy of our management team is based on meeting employees' needs.-Select

We provide staff training to create a trust based working climate. -Select

We provide counseling for employees when they make mistakes.-Select

We analyze feedback from employees to quickly implement improvements.-Select

We routinely invite feedback on employee needs to determine areas of improvement.-Select

We provide a user-friendly confidential website for employees to provide feedback to management.-Select

We maintain an employee bonus pool with cash and/or options incentives.-Select

We routinely identify high potential employees for fast track development.-Select

Management responds promptly to employee feedback.-Select
REmp2_ The management team encourages a relaxed working climate.-Select

RCmp8_ We regularly look for market opportunities that do not threaten competitors.

PCst10_ We incentivize employees to develop new product concepts.-Select

**Proactive Customer Orientation**

| PCst1_ We help our customers anticipate developments in their markets. -Select | 0.670 |
| PCst6_ We search for opportunities in areas where customers have a difficult time expressing their needs.-Select | 0.621 |
| PCst9_ We often test new service improvements in selected markets.-Select | 0.616 |
| PCst4_ We frequently brainstorm on how customers use our products and services. -Select | 0.597 |
| PCst2_ We continuously try to discover additional needs of our customers of which they may be unaware.-Select | 0.589 |
| PCst11_ We forecast trends to determine what current users will need in the future.-Select | 0.565 |
| PCst12_ We often test new products in selected markets.-Select | 0.558 |
| RCst12_ We use social media such as Facebook and/or Twitter to make it convenient for customers to provide comments.-Select | 0.538 |
| RCst10_ We provide user-friendly ways on our website for customers to provide feedback.-Select | 0.527 |
| PCst5_ We innovate even at the risk of making our own products obsolete. -Select | |
| PCst3_ We incorporate solutions to customer needs before they are able to tell us about their preferences.-Select | |
| PCmp9_ We generally implement technology advances in our products and services before our competitors do. -Select | |
### Rotated Component Matrix

<table>
<thead>
<tr>
<th>Original Item</th>
<th>Revised item</th>
<th>Component</th>
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</thead>
<tbody>
<tr>
<td>PShr6_We often examine feedback from our shareholders to develop plans to</td>
<td>We develop forward-looking plans to improve shareholder relations based on</td>
<td>1</td>
</tr>
<tr>
<td>improve shareholder relations.</td>
<td>their feedback.</td>
<td>2</td>
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<tr>
<td>PShr3_We prioritize shareholder wealth in our strategic planning.</td>
<td>No change.</td>
<td>3</td>
</tr>
<tr>
<td>RShr6_Designated managers are given responsibility for satisfying shareholder</td>
<td>Designated managers are responsible for satisfying shareholder interests.</td>
<td>4</td>
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<tr>
<td>interests.</td>
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<th>Shrhldrs</th>
<th>Cmp</th>
<th>Reust</th>
<th>Pemp/REmp1</th>
<th>Peust</th>
<th>Pemp/Remp2</th>
<th>RCst2</th>
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<td>PShr4</td>
<td>We share our long-range plans and directions with shareholders.</td>
<td>We share long-range action plans with major shareholders to invite their input.</td>
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<tr>
<td>PShr2</td>
<td>We meet with shareholders regularly to develop plans to address their questions and concerns.</td>
<td>We meet often with shareholders to find potential concerns before they develop.</td>
<td>.0818</td>
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<tr>
<td>RShr3</td>
<td>Our senior managers routinely meet with investment analysts to provide information.</td>
<td>PShr -Our senior managers keep major investors fully informed on major developments.</td>
<td>.814</td>
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<td>RShr5</td>
<td>We regularly carry out public relations aimed at shareholders.</td>
<td>We regularly provide public relations bulletins aimed at all shareholders.</td>
<td>.813</td>
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<tr>
<td>RShr4</td>
<td>We regularly compare our share value to that of our competitors.</td>
<td>We regularly compare our share value to our competitors to help improve our performance.</td>
<td>.776</td>
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<td>RShr1</td>
<td>Our objectives are driven by creating shareholder wealth.</td>
<td>No change.</td>
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<td>PShr7</td>
<td>Our website is updated regularly with comprehensive management communications.</td>
<td>Our website is updated frequently with important management communications.</td>
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<td>RShr2</td>
<td>Our senior managers have frequent meetings with shareholders.</td>
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<td>PShr5</td>
<td>We maintain a user-friendly investor relations website that encourages comments and questions.</td>
<td>We project shareholder sentiments from comments gathered on an investor relations website.</td>
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<td>PShr1</td>
<td>We often gather comparative information about our competitors to plan superior returns for our shareholders.</td>
<td>We gather market performance information to plan for improved shareholder value.</td>
<td>.674</td>
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<td>PShr9</td>
<td>We often use social media such as Facebook and/or Twitter to respond to emerging concerns expressed.</td>
<td>We use Facebook/Twitter/Social Media to discover emerging concerns of our shareholders.</td>
<td>.636</td>
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<td>PShr8</td>
<td>We frequently obtain insights from industry sector analysts to use in our strategic planning.</td>
<td>Eliminate</td>
<td>.527</td>
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<td>RCmp9</td>
<td>We frequently monitor social media to obtain information on our competitors.</td>
<td>Eliminate</td>
<td>.498</td>
<td>.416</td>
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<td>PCmp7</td>
<td>We have a designated team to regularly provide competitor information for management action.</td>
<td>We forecast trends from market information to develop action plans for staying ahead of competition.</td>
<td>.493</td>
<td>.449</td>
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<td>RCmp6</td>
<td>Our salespeople regularly provide feedback on competitors to management.</td>
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<td>.793</td>
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<td>RCmp5</td>
<td>Top management regularly discusses competitors' strengths and weaknesses.</td>
<td>No change</td>
<td>.770</td>
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<td>RCmp4</td>
<td>We often attempt to identify competitors' assumptions about our industry.</td>
<td>PCmp - We analyze reported competitor assumptions about our industry to make future plans.</td>
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<tr>
<td>PCmp3</td>
<td>We regularly analyze reports on our competitors' position to develop specific future action plans.</td>
<td>Designated managers analyze competitor reports to recommend strategic options for action.</td>
<td>.760</td>
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<tr>
<td>RCmp1</td>
<td>We regularly gather information on competitors' goals.</td>
<td>No change</td>
<td>.755</td>
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<td>RCmp2</td>
<td>We often track performance of key competitors.</td>
<td>No change</td>
<td>.737</td>
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<td>RCmp7</td>
<td>We rapidly respond to competitor actions that threaten us.</td>
<td>We respond fast to competitor actions that threaten us.</td>
<td>.711</td>
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<td>RCmp3</td>
<td>We regularly identify areas where key competitors have succeeded or failed.</td>
<td>We analyze major competitor successes to respond rapidly.</td>
<td>.679 .458</td>
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<tr>
<td>PCmp4</td>
<td>Our sales and marketing teams frequently help develop plans for improving products and services.</td>
<td>Our sales and marketing teams participate in future design improvements for products.</td>
<td>.645</td>
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<tr>
<td>PCmp5</td>
<td>Top management regularly creates plans to exploit competitor weaknesses.</td>
<td>Top management rapidly implements plans to exploit forecast competitor weaknesses.</td>
<td>.642</td>
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<tr>
<td>PCmp8</td>
<td>Top management regularly creates plans to respond to competitor strengths.</td>
<td>Top management regularly creates plans to stay ahead of competitor strengths.</td>
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<td>PCmp1</td>
<td>We frequently develop plans to stay ahead of our competitors.</td>
<td>Eliminate</td>
<td>.630 .415</td>
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<td>PCmp2</td>
<td>We often create teams to analyze competitors' products and services.</td>
<td>We often create teams to analyze competitors' products to improve our design and development work.</td>
<td>.601</td>
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<td>PCmp6_We often target customers where we may have competitive advantages.</td>
<td>Eliminate</td>
<td>.598</td>
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<td>PCmp10_We often develop strategic plans for markets which have few competitive threats.</td>
<td>We develop strategic plans for big niches competition may have overlooked.</td>
<td>.510</td>
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<td>RCst7_We work to be more customer focused than our competitors.-Select</td>
<td>No change</td>
<td>.821</td>
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<td>RCst8_We ensure our business exists primarily to serve customers.-Select</td>
<td>No change</td>
<td>.817</td>
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<td>PCst8_We are highly focused on providing a superior customer experience.-Select</td>
<td>We are always focused on creating an outstanding customer experience.</td>
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<td>RCst3_We freely communicate information with our management about all our experiences regarding customers.-Select</td>
<td>We freely communicate all customer information with our managers.</td>
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<td>RCst4_Our strategy for competitive advantage is based on our understanding of customers’ needs.-Select</td>
<td>We develop long-range forecasts of market trends to design future products.</td>
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<td>RCst2</td>
<td>We constantly monitor our level of commitment to serving customer needs. -Select</td>
<td>Eliminate – covered elsewhere, redundant</td>
<td>.687</td>
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<td>RCst13</td>
<td>We ensure prompt response to all customer feedback. -Select</td>
<td>Eliminate</td>
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<td>REmp3</td>
<td>We ensure a promotion system that helps the most capable person rise to the top. -Select</td>
<td>Our promotion system ensures the most capable employees rise to the top.</td>
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<td>RCst5</td>
<td>We measure customer satisfaction frequently. -Select</td>
<td>Eliminate</td>
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<td>RCst1</td>
<td>We develop our business objectives to primarily achieve customer satisfaction. -Select</td>
<td>Our business planning prioritizes outstanding customer satisfaction.</td>
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<td>REmp1</td>
<td>We ensure people in this organization are rewarded based on their job performance. -Select</td>
<td>People in this organization are rewarded based on their job performance.</td>
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<td>PCst</td>
<td>We believe trust between managers and workers results in improved customer experience.</td>
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<td>.733</td>
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<td>We constantly monitor our level of commitment to serving customer needs. -Select</td>
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</tr>
<tr>
<td>PEmp12</td>
<td>We implement industry best practices to improve working conditions for our employees.</td>
<td>Eliminate</td>
<td>.512</td>
<td>.471</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEmp2</td>
<td>We routinely identify high potential employees for fast track development.</td>
<td>Select</td>
<td>.475</td>
<td>.405</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>PEmp1</td>
<td>We carry out regular staff appraisals to determine merit based compensation.</td>
<td>Eliminate – low load and mixed category.</td>
<td>.473</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEmp1</td>
<td>We provide training to all employees for personal development.</td>
<td>Select</td>
<td>.754</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>PEmp13</td>
<td>We regularly obtain information from human resource organizations to identify new employee benefits.</td>
<td>Select</td>
<td>.420</td>
<td>.729</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEmp8</td>
<td>Top management meets regularly to develop plans to improve employee job satisfaction.</td>
<td>Select</td>
<td>.680</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>PEmp7_Top management regularly examines compensation plans to ensure our plans are better than competition. - Select</td>
<td>Top management ensures total employee compensation is better than competition.</td>
<td>.672</td>
<td></td>
<td></td>
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<tr>
<td>PEmp10_We provide counseling for employees when they make mistakes. - Select</td>
<td>We provide counseling with confidential professional help to employees.</td>
<td>.621</td>
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<tr>
<td>REmp6_The philosophy of our management team is based on meeting employees' needs. - Select</td>
<td>Our top management team is always focused on exceeding employee expectations.</td>
<td>.601</td>
<td></td>
<td></td>
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<tr>
<td>REmp5_We provide a user-friendly confidential website for employees to provide feedback to management. - Select</td>
<td>Employees are invited to provide frank comments on a confidential website.</td>
<td>.488</td>
<td>.492</td>
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<tr>
<td>RCmp8_We regularly look for market opportunities that do not threaten competitors.</td>
<td>Eliminate – marginal load and mixed category</td>
<td>.439</td>
<td></td>
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<tr>
<td>PCst4_We frequently brainstorm on how customers use our products and services. - Select</td>
<td>We regularly brainstorm future needs of our customers to create new product plans.</td>
<td>.710</td>
<td></td>
<td></td>
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<tr>
<td>PCst6</td>
<td>We search for opportunities in areas where customers have a difficult time expressing their needs.</td>
<td>We research product improvements customers would find attractive if we made them available.</td>
<td>.670</td>
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<tr>
<td>PCst2</td>
<td>We continuously try to discover additional needs of our customers of which they may be unaware.</td>
<td>We implement features to our products which customers would really like but cannot tell us about yet.</td>
<td>.473</td>
<td>.636</td>
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<tr>
<td>PCst1</td>
<td>We help our customers anticipate developments in their markets.</td>
<td>We help our clients plan for future needs of their customers.</td>
<td>.634</td>
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<tr>
<td>PCst9</td>
<td>We often test new service improvements in selected markets.</td>
<td>We regularly test product improvements with selected customers.</td>
<td>.400</td>
<td>.610</td>
<td></td>
<td></td>
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<tr>
<td>PCst11</td>
<td>We forecast trends to determine what current users will need in the future.</td>
<td>We regularly forecast market trends for future product requirements.</td>
<td>.599</td>
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<tr>
<td>PCst12</td>
<td>We often test new products in selected markets.</td>
<td>Eliminate</td>
<td>.556</td>
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<td>Action</td>
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<td>Score2</td>
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<tr>
<td>PCst7</td>
<td>We use customer feedback data trends to deliver improvements in our products and services.</td>
<td>Eliminate</td>
<td>.456</td>
<td>.525</td>
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<tr>
<td>RCst12</td>
<td>We use social media such as Facebook/Twitter/Social Media to obtain customer perception of our products.</td>
<td></td>
<td>.417</td>
<td>.428</td>
<td>.522</td>
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<tr>
<td>PCst5</td>
<td>We innovate even at the risk of making our own products obsolete.</td>
<td></td>
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<td>.517</td>
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<tr>
<td>RCst10</td>
<td>We provide user-friendly ways on our website for customers to provide feedback.</td>
<td>Eliminate</td>
<td>.459</td>
<td>.416</td>
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<tr>
<td>PCst3</td>
<td>We incorporate solutions to customer needs before they are able to tell us about their preferences.</td>
<td>Eliminate</td>
<td>.458</td>
<td>.410</td>
<td></td>
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<tr>
<td>PCst10</td>
<td>We incentivize employees to develop new product concepts.</td>
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<td></td>
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<td>.447</td>
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<tr>
<td>PEmp3</td>
<td>Top management awards incentive pay that could be more than base pay to high performers. - Select</td>
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<td>.610</td>
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<tr>
<td>PEmp6</td>
<td>Feedback from employees is regularly used to implement suggested improvements. - Select</td>
<td></td>
<td>.591</td>
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<tr>
<td>REmp8</td>
<td>Feedback from employees is regularly used to implement suggested improvements.</td>
<td>.410</td>
<td>.566</td>
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<tr>
<td>PEmp9</td>
<td>We provide team development programs to build trust among all employees. - Select</td>
<td>.493</td>
<td>.517</td>
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<tr>
<td>REmp2</td>
<td>Top management sets the example for a supportive workplace environment. - Select</td>
<td></td>
<td>.503</td>
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<tr>
<td>PEmp4</td>
<td>Eliminate</td>
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<tr>
<td>PEmp5</td>
<td>We pay bonuses to employees based on overall firm performance. - Select</td>
<td></td>
<td>.496</td>
<td></td>
<td></td>
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<tr>
<td>PCmp9 We generally implement technology advances in our products and services before our competitors do.</td>
<td>We often integrate advanced technology in our products before competitors.</td>
<td></td>
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<td>.473</td>
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<tr>
<td>RCst6 We regularly measure our quality of customer service. Select</td>
<td>We analyze customer satisfaction reports for needed rapid action.</td>
<td>.460</td>
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<td>.614</td>
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<tr>
<td>RCst11 Data on customer satisfaction are disseminated regularly to all levels of management. Select</td>
<td>Data on customer satisfaction are given to all levels of managers to brainstorm recommendations for improvement.</td>
<td></td>
<td></td>
<td>.604</td>
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<tr>
<td>RCst9 We poll customers often to assess the quality of our products and services. Select</td>
<td>Eliminate</td>
<td>.440</td>
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<td>.507</td>
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<tr>
<td>REmp7 You don’t get much sympathy from management in this organization if you make a mistake. Select</td>
<td>Eliminate</td>
<td>.406</td>
<td></td>
<td>.544</td>
<td></td>
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</tbody>
</table>
Appendix 7 – Pilot 2 Survey

Notes: The survey design was similar to Pilot 1 as to introduction and section instructions. Based on feedback, the visual design was improved to use slider scales from 0-10 and 0-100 throughout the survey.

Customer Orientation

Responsive Customer Orientation

RCst1 Our business planning ensures outstanding customer satisfaction is a priority.- Select

RCst2 We freely communicate all customer information with our managers.-Select

RCst3 We develop long range forecasts of market trends to design future products.-Select

RCst4 We analyze customer satisfaction reports for needed rapid actions.-Select

RCst5 We work to be more customer focused than our competitors

RCst6 Data on customer satisfaction are provided to all management levels to brainstorm recommendations for improvements.-Select

RCst7 We monitor FaceBook/Twitter/Social Media to obtain customer perceptions of our products.-Select

Proactive Customer Orientation

PCst1 We help our clients to plan for future needs of their customers.-Select

PCst2 We implement features for our products which customers would really like but cannot tell us about yet.-Select
PCst3 We regularly brainstorm future needs of customers to create new product plans. - Select

PCst4 We release new products even if they might compete with our existing products.- Select

PCst5 We research product improvements customers would find attractive if we made them available.-Select

PCst6 We are always focused on creating an outstanding customer experience.-Select

PCst7 We regularly test product improvements with selected customers.-Select

PCst8 Product improvement ideas from employees are well rewarded.-Select

PCst9 We forecast market trends for future customer requirements.-Select

**Competitor Orientation**

**Responsive Competitor Orientation**

RCmp1 We regularly gather information on competitors' goals. -Select

RCmp2 We often track performance of key competitors

RCmp3 We analyze major competitor successes to respond rapidly.-Select

RCmp4 We analyze reported competitor assumptions about our industry to make future plans.-Select

RCmp5 Top management regularly discusses competitors’ strengths and weaknesses.- Select

RCmp6 Our salespeople regularly provide feedback on competitors to management.- Select

RCmp7 We respond rapidly to competitor actions that threaten us.-Select
**Proactive Competitor Orientation**

PCmp1 We often create teams to analyze competitors' products to improve our design and development work. - Select

PCmp2 Designated managers analyze competitor reports to recommend strategic options for action

PCmp3 Our sales and marketing teams participate in future design improvements for products. - Select

PCmp4 Top management rapidly implements plans to exploit competitor weaknesses. - Select

PCmp5 We forecast trends from market information to develop action plans for staying ahead of the competitor. - Select

PCmp6 Top management regularly creates plans to stay ahead of competitor strengths. - Select

PCmp7 We often integrate advanced technology in our products before competitors. - Select

PCmp8 We develop strategic plans for important niches which the competition may have overlooked. - Select

**Employee Orientation**

**Responsive Employee Orientation**

REmp1 People in this organization are rewarded based on their job performance. - Select

REmp2 Top management sets the example for a supportive workplace environment. - Select

REmp3 Our promotion system ensures the most capable employees rise to the top. - Select
REmp4 We believe trust between managers and workers results in an improved customer experience. -Select

REmp5 Employees are invited to provide frank comments on a confidential website. -Select

REmp6 Our top management is always focused on exceeding employee expectations. -Select

**Proactive Employee Orientation**

PEmp1 We give rapid promotions to high performing employees. -Select

PEmp2 Top management awards large bonuses for high performers. -Select

PEmp3 We pay bonuses to employees based on overall firm performance. -Select

PEmp4 Feedback from employees is regularly used to act on suggested improvements for the company. -Select

PEmp5 Top management ensures total employee compensation is better than the competition. -Select

PEmp6 Top management regularly implements plans to improve employee job satisfaction. -Select

PEmp7 We provide team development programs to build trust among all employees. -Select

PEmp8 We provide counseling with confidential professional help to employees. -Select

PEmp9 We encourage all employees to obtain training for professional development. -Select

PEmp10 We continually implement improved employee benefits based on reports from human resource experts. -Select
Shareholder Orientation

Responsive Shareholder Orientation

RShr1 Our objectives are driven by creating shareholder wealth.-Select

RShr2 Our senior managers have frequent meetings with shareholders.-Select

RShr3 Our senior managers keep major investors fully informed on major developments.-Select

RShr4 We regularly compare our share value to that of our competitors to help improve our performance. -Select

RShr5 We regularly provide public relations bulletins aimed at all shareholders.-Select

RShr6 Designated managers are responsible for satisfying shareholder interests.-Select

Proactive Shareholder Orientation

PShr1 We regularly gather market performance information to plan for improved shareholder value.-Select

PShr2 We meet often with shareholders to identify potential concerns before they develop.-Select

PShr3 We prioritize shareholder wealth in our strategic planning.-Select

PShr4 We share our long-range plans with major shareholders to invite their input. -Select

PShr5 We project shareholder sentiments from comments gathered in our investor relations website.-Select

PShr6 We develop forward looking plans to improve shareholder relations based on their feedback.-Select
PShr7 Our website is updated regularly with important management communications.-Select
PShr8 We use Facebook/Twitter/Social Media to discover emerging concerns of our shareholders. -Select

Innovation Orientation

Inn1 Competitors in this market recognize us as innovation leaders. -Select
Inn2 Our CEO continually emphasizes innovations in all aspects of our business.-Select
Inn3 We are recognized for being at the leading edge of technological innovation. -Select
Inn4 We are first to market with new products and services. -Select
Inn5 We continually monitor technological developments to incorporate in our products and services.-Select
Inn6 We ensure news of innovations is disseminated regularly to all levels of our company.-Select
Inn7 We receive training in developing innovative products and services.-Select
Inn8 We have a designated group to regularly provide research on new product and services ideas for management.-Select
Inn9 We regularly create an inventory of ideas to brainstorm development of new products and services.-Select
Inn10 We provide substantial recognition and/or rewards to employees/teams for innovations.-Select
Inn11 We regularly analyze developments outside our primary business for product and services ideas to incorporate in our strategic plans.-Select
We take a long-term view of market requirements for new products and services.

**Firm Performance**

FP1 - SlsGr How satisfied are you with your firm's performance in terms of the following: Sales growth

FP2 - Prft How satisfied are you with your firm's performance in terms of the following: Profitability

FP3 - MktShr How satisfied are you with your firm's performance in terms of the following: Market share

FP4 - CstSat How satisfied are you with your firm's performance in terms of the following: Customer satisfaction

FP5 - EmpSat How satisfied are you with your firm's performance in terms of the following: Employee job satisfaction

FP6 - OvrPrf How satisfied are you with your firm's performance in terms of the following: Overall firm performance relative to your competitors
### Appendix 8 – Pilot 2 EFA 4 Factor Solution (<0.5 suppressed)

<table>
<thead>
<tr>
<th>Shareholder Orientation</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>RShr2 Our senior managers have frequent meetings with shareholders. -Select</td>
<td>0.895</td>
</tr>
<tr>
<td>PShr3 We prioritize shareholder wealth in our strategic planning. -Select</td>
<td>0.859</td>
</tr>
<tr>
<td>PShr2 We meet often with shareholders to identify potential concerns before they develop. -Select</td>
<td>0.858</td>
</tr>
<tr>
<td>RShr1 Our objectives are driven by creating shareholder wealth. -Select</td>
<td>0.849</td>
</tr>
<tr>
<td>PShr6 We develop forward looking plans to improve shareholder relations based on their feedback - Select</td>
<td>0.846</td>
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<tr>
<td>RShr5 We regularly provide public relations bulletins aimed at all shareholders. - Select</td>
<td>0.840</td>
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<tr>
<td>PShr4 We share our long-range plans with major shareholders to invite their input. - Select</td>
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<tr>
<td>RShr6 Designated managers are responsible for satisfying shareholder interests. - Select</td>
<td>0.834</td>
</tr>
<tr>
<td>PShr5 We project shareholder sentiments from comments gathered in our investor relations website - Select</td>
<td>0.816</td>
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<tr>
<td>PShr1 We regularly gather market performance information to plan for improved shareholder value. - Select</td>
<td>0.801</td>
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<tr>
<td>RShr3 Our senior managers keep major investors fully informed on major developments. - Select</td>
<td>0.784</td>
</tr>
<tr>
<td>PShr8 We use Facebook/Twitter/Social Media to discover emerging concerns of our shareholders. - Select</td>
<td>0.710</td>
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</tr>
<tr>
<td>RSr4</td>
<td>We regularly compare our share value to that of our competitors to help improve our performance.</td>
</tr>
<tr>
<td>PSr7</td>
<td>Our website is updated regularly with important management communications.</td>
</tr>
</tbody>
</table>

### Market Orientation - Provisional

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>RCst4</td>
<td>We analyze customer satisfaction reports for needed rapid actions.</td>
<td>Select</td>
</tr>
<tr>
<td>RCmp2</td>
<td>We often track performance of key competitors</td>
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<tr>
<td>RCst5</td>
<td>We work to be more customer focused than our competitors</td>
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</tr>
<tr>
<td>RCmp3</td>
<td>We analyze major competitor successes to respond rapidly.</td>
<td>Select</td>
</tr>
<tr>
<td>RCmp7</td>
<td>We respond rapidly to competitor actions that threaten us.</td>
<td>Select</td>
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<tr>
<td>RCmp5</td>
<td>Top management regularly discusses competitors’ strengths and weaknesses.</td>
<td>Select</td>
</tr>
<tr>
<td>RCmp4</td>
<td>We analyze reported competitor assumptions about our industry to make future plans.</td>
<td>Select</td>
</tr>
<tr>
<td>PCmp5</td>
<td>We forecast trends from market information to develop action plans for staying ahead of the competition.</td>
<td>Select</td>
</tr>
<tr>
<td>PCmp6</td>
<td>Top management regularly creates plans to stay ahead of competitor strengths.</td>
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</tr>
<tr>
<td>PCmp4</td>
<td>Top management rapidly implements plans to exploit competitor weaknesses.</td>
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</tr>
<tr>
<td>Rcml1</td>
<td>We regularly gather information on competitors' goals.</td>
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</tr>
<tr>
<td>PCst9</td>
<td>We forecast market trends for future customer requirements.</td>
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<tr>
<td>RCst6</td>
<td>Data on customer satisfaction are provided to all management levels to brainstorm recommendations for improvement.</td>
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</tr>
<tr>
<td>RCmp6</td>
<td>Our salespeople regularly provide feedback on competitors to management.</td>
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<tr>
<td>PCst6</td>
<td>We are always focused on creating an outstanding customer experience.</td>
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</table>
RCst3 We develop long range forecasts of market trends to design future products.-Select 0.520

**Employee Orientation**

REmp1 People in this organization are rewarded based on their job performance.-Select 0.830
REmp3 Our promotion system ensures the most capable employees rise to the top.-Select 0.793
PEmp5 Top management ensures total employee compensation is better than the competition.-Select 0.776
PEmp6 Top management regularly implements plans to improve employee job satisfaction.-Select 0.766
REmp6 Our top management is always focused on exceeding employee expectations.-Select 0.761
PEmp1 We give rapid promotions to high performing employees.-Select 0.749
PEmp7 We provide team development programs to build trust among all employees.-Select 0.728
REmp2 Top management sets the example for a supportive workplace environment.-Select 0.706
PCSt8 Product improvement ideas from employees are well rewarded.-Select 0.681
PEmp4 Feedback from employees is regularly used to act on suggested improvements for the company.-Select 0.679
PEmp10 We continually implement improved employee benefits based on reports from human resource experts.-Select 0.622
PEmp2 Top management awards large bonuses for high performers.-Select 0.598

**Proactive Customer Orientation**

PCst5 We research product improvements customers would find attractive if we made them available.-Select 0.670
PCst7 We regularly test product improvements with selected customers.-Select 0.647
PCst2 We implement features for our products which customers would really like but cannot tell us about yet.-Select 0.618
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<th>PCmp7</th>
<th>We often integrate advanced technology in our products before competitors. -Select</th>
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<td>We regularly brainstorm future needs of customers to create new product plans. -Select</td>
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Appendix 9 – Final Survey Items Retained

Notes:

1. Section and survey instructions were the same as for previous surveys – scales for innovation orientation and firm performance were unchanged. Respondent profile information questions were also unchanged. The latter items are not reproduced.

2. Proactive designated items in previous surveys are marked (***) for reference for competitor, employee and shareholder items. Items were responsive unless otherwise noted.

Responsive Customer Orientation
RCst1 We analyze customer satisfaction reports for needed rapid actions.-Select
RCst2 We work to be more customer focused than our competitors.-Select
RCst3 Data on customer satisfaction are provided to all management levels to brainstorm recommendations for improvement.-Select

Proactive Customer Orientation
PCst1 We regularly test product improvements with selected customers.-Select ***
PCst2 We implement features for our products which customers would really like but cannot tell us about yet.-Select ***
PCst3 We often integrate advanced technology in our products before competitors.-Select ***
PCst4 We regularly brainstorm future needs of customers to create new product plans. – Select ***

PCst5 We brainstorm product improvements customers would like if we made them available.-Select ***

**Competitor Orientation**

CMp1 We often track performance of key competitors.-Select

CMp2 We analyze major competitor successes to respond rapidly.-Select

CMp3 We respond rapidly to competitor actions that threaten us.-Select

CMp4 We analyze reported competitor assumptions about our industry to make future plans.-Select

CMp5 Top management regularly discusses competitors’ strengths and weaknesses.-Select

**Employee Orientation**

EM1 People in this organization are rewarded based on their job performance.-Select

EM2 Top management sets the example for a supportive workplace environment.–Select

EM3 Our promotion system ensures the most capable employees rise to the top. -Select

EM4 Our top management is always focused on exceeding employee expectations.-Select

Em5 We give rapid promotions to high performing employees.-Select ***

EM6 Top management ensures total employee compensation is better than the competition.–Select ***

EM7 Top management regularly implements plans to improve employee job satisfaction.–Select ***
EM8 We provide team development programs to build trust among all employees.—Select ***

**Shareholder Orientation**

SH1 Our objectives are driven by creating shareholder wealth.—Select

SH2 Our senior managers have frequent meetings with shareholders.—Select

SH3 We regularly provide public relations bulletins aimed at all shareholders.—Select

SH4 We develop forward looking plans to improve shareholder relations based on their feedback.—Select ***

SH5 We meet often with shareholders to identify potential concerns before they develop.—Select ***

SH6 We prioritize shareholder wealth in our strategic planning.—Select ***

SH7 We share our long-range plans with major shareholders to invite their input.—Select ***

SH8 We use Facebook/Twitter/Social Media to discover emerging concerns of our shareholders.—Select ***

SH9 Designated managers are responsible for satisfying shareholder interests.—Select
## Appendix – 10 Full Measurement Model Convergent, Reliability and Discriminant Analysis

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**Squared Interconstruct Correlations - Discriminant Validity**

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Appendix 11 – XSO, Innovation Orientation and Firm Performance Measurement Model Analysis

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