

Chapter 3 Conceptual Framework and Hypotheses

Purpose of Study

A question of how a business survives competition through achieving and maintaining a competitive advantage has long been the main concern in the study of marketing (Day, 1994). To answer this question, this study is designed to conceptualize the relationship among the following variables that are thought to be antecedents to performance: market orientation, learning orientation, and innovation. The study is also designed to broaden current research on these variables by introducing the variable of networking, which is one of three components of market orientation. The variable of networking contains the following components: supply chain and informal relationship. For sample selection, the study focuses on the sample of South Korean apparel SMEs.

The objectives of this study are as follows:

- a. To identify the relationships among market orientation, learning orientation, innovation, and performance for SMEs in the apparel sector of the South Korean textile and apparel industry
- b. To test the role of informal relationships in the proposed model in the apparel sector of the South Korean textile and apparel industry

Conceptual Framework and Hypotheses

Various studies have explored what are the antecedents or indicators of profitable performance for manufacturing firms. The variables that are most often linked to performance are market orientation, including formal and informal relationships; learning orientation; and innovation. The relationship among these variables has been studied both in pairs of variables and

in multiple sets. This chapter provides the conceptual framework and associated theoretical background for this framework. The framework for this study is based on Baker and Sinkula's (1999) conceptual model and Keskin's (2006) model adjusted for the SMEs' context. These two frameworks are based on a series of studies on the topic. The first framework on the relationship of these variables is the findings from a study by Slater and Narver (1995). Their study provided support for the proposition that market orientation is an antecedent to innovation and it is the information sources of learning orientation that are pertinent to the development of innovation. This finding was supported in the study by Hurley and Hult (1998) and Baker and Sinkula who found that innovation is an outcome of both market orientation and learning orientation, and that market orientation is a basis for learning orientation. In their empirical study, they tested a conceptual framework proposing that market orientation is not relevant directly to performance but rather indirectly as organizational learning positively leads firms to advantageous positions or improved performance. Therefore, a learning orientation for an organization is an interceding variable between marketing orientation and performance. In SMEs studies, Keskin and Hyvonen and Tuominen (2006) proposed an opposing opinion that market orientation is not significant to SMEs' performance.

In summary, although market orientation, learning orientation, and innovation are interchangeable in some definitions, organizational learning, a major aspect of learning orientation, is shown through several studies to precede innovation; and when it combines with other business environments, it has an influence on innovation. Based on the fact that previous studies include conflicting information, this study includes market orientation as a direct variable to influence SMEs' performance. In addition, this study conceptualizes that market orientation influences SMEs learning orientation directly and learning orientation directly influences innovation and

SMEs performance. Based on previous research and the need to modify previous models to be culture specific, the following model is proposed (see Figure. 3).

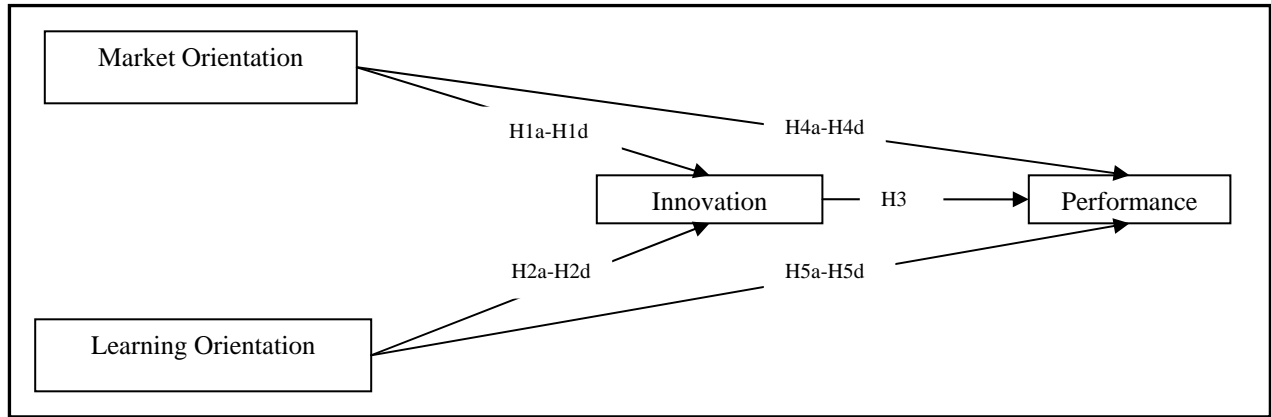


Figure 3. Factors Related to South Korean Apparel SMEs' Performance

While these studies contributed to the generalized model developed by in studies of firms, primarily in Western and Mediterranean countries, these studies do not provide complete direction for SMEs in NICs because most of the previous studies were conducted in countries with cultures that are different from the cultures in NICs. Considering the unique characteristics of cultures that are found in NICs, and particularly, features in the South Korean culture, the impact of informal relationships can not be neglected in a study of SMEs in South Korea. For this reason, this study included the informal network as a component of the network variable (i.e., a component of marketing orientation) in the proposed model to measure the impact of market orientation on learning orientation, innovation, and SMEs' performance.

Relationship between SMEs Market Orientation Components and Innovation (Hypothesis 1)

Among the variables in the model, several variables are composed of various components. The market orientation variable is defined through three components: customer orientation, competitor orientation, and network. These three variables were first proposed by Narver and

Slater (1995) and either the three variables or some variation of these have remained in the literature through various studies. While several studies measure networks by using the concept of formal relationships (Kohli & Jaworski, 1990; Narver & Slater, 1990; Hurley & Hult, 1998; Hyvonen & Tuominen, 2006; Keskin, 2006), this study includes two measurements for this variable: supply chain (i.e. formal relationship) and informal relationship. The component or measure of informal networks is added because of the importance of the informal relationship in South Korean apparel SMEs.

Innovation, which is measured by innovativeness and innovation capacity, is measured by innovativeness in many studies rather than innovation capacity (e.g. Calantone, Cavusgil, & Zhao, 2002; Han, Kim, & Srivastava, 1995; Hurley & Hult, 1998). To take into account the cultural aspect of innovativeness, an important role in this aspect is that it stimulates adoption of technological and managerial innovation (i.e. innovation capacity) in the organizations (Hurley & Hult). In most studies, innovativeness is measured by the introduction of a new product, a new production process, entry into or exit from a market, a new service program, and the adoption of new systems or equipment for the production or delivery of products and services (Calantone, Cavusgil, & Zhao; Hurley & Hult; Keskin, 2006). Some suggested items for innovativeness are also identified as the same measurements used for innovation capacity by many authors (e.g. Hyvonen & Tuominen, 2006; Han, Kim, & Srivastava). This study excludes innovation capacity to measure innovation because of the overlap between innovativeness and innovation capacity of measurement item statements, and it assumes that innovativeness as measured can be a comprehensive measurement of innovation. Each variable component is proposed to have a relationship with other variables in the model (see Figure. 4).

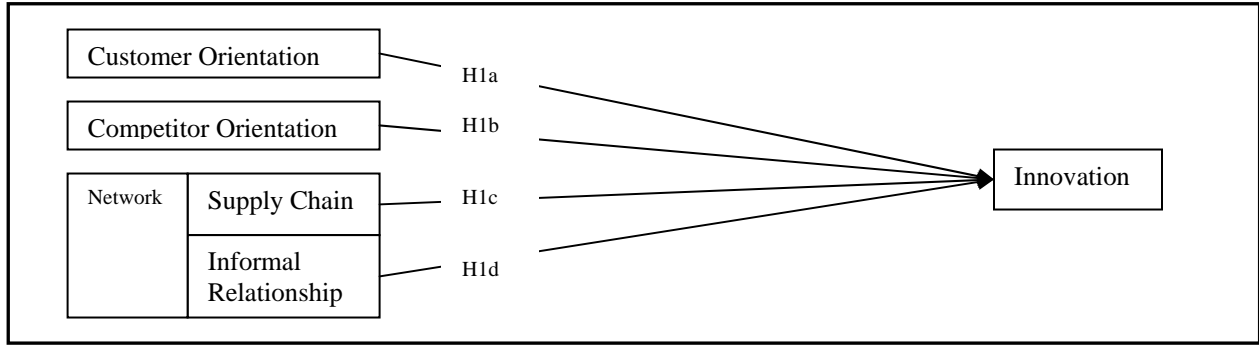


Figure 4. Market Orientation Components Related to South Korean Apparel SMEs' Innovation

Customer Orientation and Innovation. One way to approach innovation is with the customer-oriented approach. The role of customers is pivotal in innovation processes as they provide novel ideas for product and services development. If customers engage in the early stages of product innovation, they provide valuable resources for generating new product development and finding new market opportunities; therefore, customer involvement can encourage firms to be more innovative (Pittaway, Robertson, Munir, Denyer, & Neely, 2004).

Competitor Orientation and Innovation. Customer orientation, alone, is not sufficient to create customers' satisfaction. If a firm focuses too much on customer orientation, it is more likely to fail in building a proper business strategy. Competitor orientation supplements this void and encourages firms to build an appropriate strategy; therefore, competitor orientation positively influences market orientation and it subsequently contributes to an increase in a firm's innovation (Han, Kim, & Srivastava, 1998). In the four strategy types comprising competitor orientation, defenders, prospectors, and analyzers outperform reactors (Snow & Hrebiniak, 1980). Therefore, the competitor orientation of defenders, prospectors, and analyzers are proposed to have more influence on innovation than firms with a reactors' orientation.

Network - Supply Chain and Innovation. In a competitive market, managers have shown an increasing interest in suppliers who provide products and services to assist them in maintaining a profitable relationship with customers. Optimization of the network of internal structures and infrastructures (i.e., supply chains) is not a simple problem in a competitive environment, but rather a complex and multifaceted problem. Previous research has shown that manufacturers can be successful if they carefully align their internal processes to external suppliers and customers and formalize supply chains that are appropriate for their firms, products and customers (Froehlich & Westbrook, 2001). Efficient communication among supply chain members has been shown to help generate innovation. If suppliers are motivated to innovate through interaction, they help buyers innovate (Roy, Sivakumar, & Wilkinson, 2003).

Network - Informal Relationship and Innovation. The importance of informal relationships, both as a component of networking and as an individual variable, has received increased attention in the management literature (Kohli & Jaworski, 1990; Smircich, 1983). Kohli and Jaworski emphasized the important role of informal relationships in market orientation because it facilitates information flow within and moderates conflicts across departments in an organization. By facilitating information flow and improving market orientation, informal relationships contribute to increases in innovation.

On the basis of the reviewed literature the following hypotheses are proposed for the relationship between marketing orientation and innovation.

H_{1a}: In South Korean apparel SMEs, increased customer orientation is related to the SMEs' increased innovation.

H_{1b}: In South Korean apparel SMEs, competitor orientations will influence the SMEs' innovation.

H_{1c}: In South Korean apparel SMEs, increased use of formalized supply chain activities will increase the SMEs' innovation.

H_{1d}: In South Korean apparel SMEs, increases in informal relationships will increase the SMEs' innovation.

Learning Orientation and Innovation (Hypothesis 2)

The promotion of organizational learning in a firm motivates and positively influences innovation because it fosters faster learning, which results in more and faster changes than the types and rate of changes accomplished by competitors without this type of learning (Hurley & Hult, 1998). Because learning orientation, comprised of four components (i.e., commitment to learning, shared vision, open-mindedness, intraorganizational knowledge sharing), can promote changes by encouraging the firm to pursue customer satisfaction through new products, services, and management, it can be considered as effecting innovation (Calantone, Cavusgil, & Zhao, 2002). Baker and Sinkula (1999) identify significant effects of learning orientation on innovation. Mavondo, Chimhanzi, and Stewart (2005) and Keskin (2006) suggest that innovation can be enhanced by learning orientation and propose a group of measurement variables (i.e., commitment to learning, shared vision, open-mindedness, intraorganizational knowledge sharing) that facilitate a firm's innovativeness. Each variable component is proposed to have a relationship with other variables in the model (see Figure. 5)

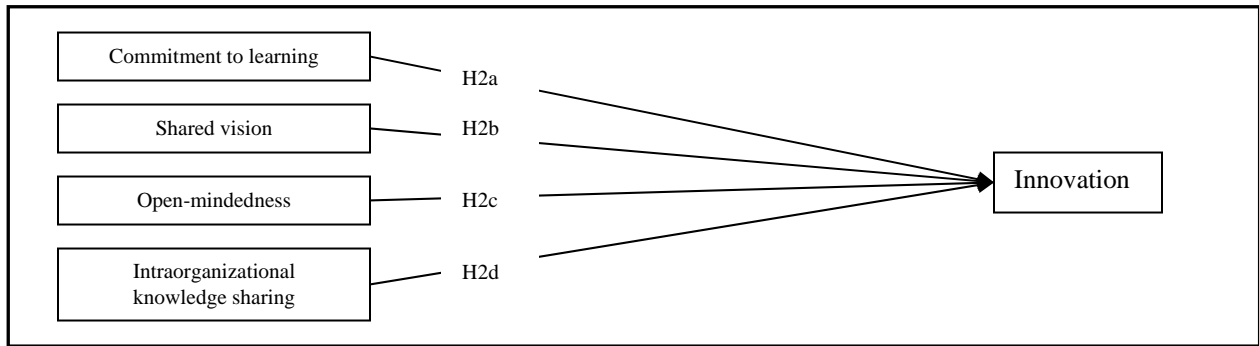


Figure 5. Learning Orientation Components Related to South Korean Apparel SMEs' Innovation

On the basis of the reviewed literature the following hypotheses are proposed for the relationship between learning orientation and innovation.

H_{2a}: In South Korean apparel SMEs, increases in commitment to learning components are related to increases in SME's innovation.

H_{2b}: In South Korean apparel SMEs, increases in shared vision components are related to increases in SME's innovation.

H_{2c}: In South Korean apparel SMEs, increases in open-mindedness components are related to increases in SME's innovation.

H_{2d}: In South Korean apparel SMEs, increases in intraorganizational knowledge sharing components are related to increases in SME's innovation.

Innovation and Performance (Hypothesis 3)

Innovation is defined by Hult, Hurley and Knight (2004) as both a means of changing an organization and the organization's adoption of new strategy, products, and technologies.

Innovation can increase a firm's competitive advantage either by providing a forum for responding to changing environment or by assisting the firm to create ways to influence to the environment (Hult, Hurley & Knight). Ultimately an influx of innovation within a firm should lead to enhanced performance (Damanpour, 1991; Han, Kim, & Serivastava, 1998). Performance is measured in

numerous ways and is often measured with direct financial measures by examination of such items as ROI, ROA and ROS (Calantone, Cavusgil, & Zhao, 2002; Keskin, 2006; Mavondo, Chimhanzi, & Stewart, 2005). In other studies, performance is measured by subjective measures, asking the respondents to compare their firm's performance to the performance of other firms (Calantone, Cavusgil, & Zhao, 2002; Han, Kim, & Srivastava, 1998) The relationship between market orientation and performance is proposed in the model (see Figure. 6).

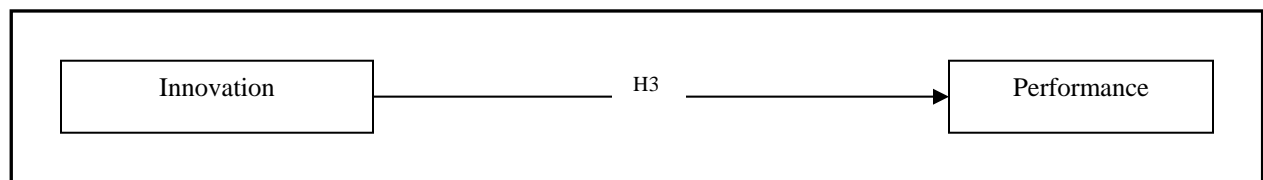


Figure 6. Relationship between Innovation and South Korean Apparel SMEs' Performance

On the basis of the reviewed literature, the following hypothesis is proposed for the relationship between innovation and performance.

H₃: In South Korean apparel SMEs, innovation is related to performance as measured by financial (i.e. ROI, ROA, and ROS) and subjective performance.

Market Orientation and Performance (Hypotheses 4)

In general marketing studies and SMEs studies the information about the relationship between market orientation and performance is conflicting. Through various studies, researchers have found that market orientation is not significant to the organization's performance (Baker & Sinkula, 1999; Han, Kim, & Srivastava, 1998; Keskin, 2006); it is significant to performance (Narver & Slater, 1990; Ruekert, 1992); or it is partially significant to performance (Kohli & Jaworski, 1990; Hyvonen & Tuominen, 2006). Because of these inconsistent findings on the relationship between market orientation and performance, this study examines market orientation's

effect on performance for apparel SMEs in South Korea. The relationship between market orientation and performance is proposed in the model (see Figure. 7).

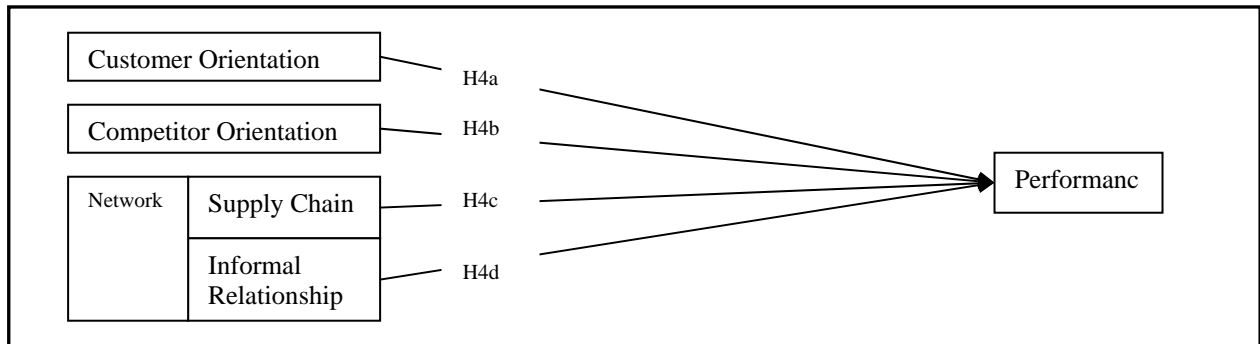


Figure 7. Relationship between Market Orientation and South Korean Apparel SMEs' Performance

On the basis of the reviewed literature the following hypothesis is proposed for the relationship between market orientation and performance.

H_{4a}: In South Korean apparel SMEs, increased customer orientation is related to the SMEs' performance.

H_{4b}: In South Korean apparel SMEs, competitor orientations will influence the SMEs' performance.

H_{4c}: In South Korean apparel SMEs, increased use of formalized supply chain activities will increase the SMEs' performance.

H_{4d}: In South Korean apparel SMEs, increases in informal relationships will increase the SMEs' performance.

Learning Orientation and Performance (Hypothesis 5)

The effect of learning orientation can lead to new product success, to superior customer satisfaction, and finally to the growth and/or profitability (i.e., increased performance) of firms (Keskin, 2006). Narver and Slater (1995) note that a firm with a learning orientation is more likely

to outperform other firms through its innovative products, services, and management systems. Sinkula, Baker, and Noordewier (1997) suggest that learning orientation, including commitment to learning, shared vision, and open-mindedness, enhances a firm's competitive advantage. Reinforcing this point, Baker and Sinkula (1999) empirically tested Sinkula, Baker, and Noordewier's suggestion and found that learning orientation significantly affects a firm's performance. Calantone, Cavusgil, and Zhao (2002) also propose that learning orientation is measured by commitment to learning, shared vision, open-mindedness, and intraorganizational knowledge sharing and it has positive influence on the firms' performance. The relationship between learning orientation and performance is proposed in the model (see Figure. 8).

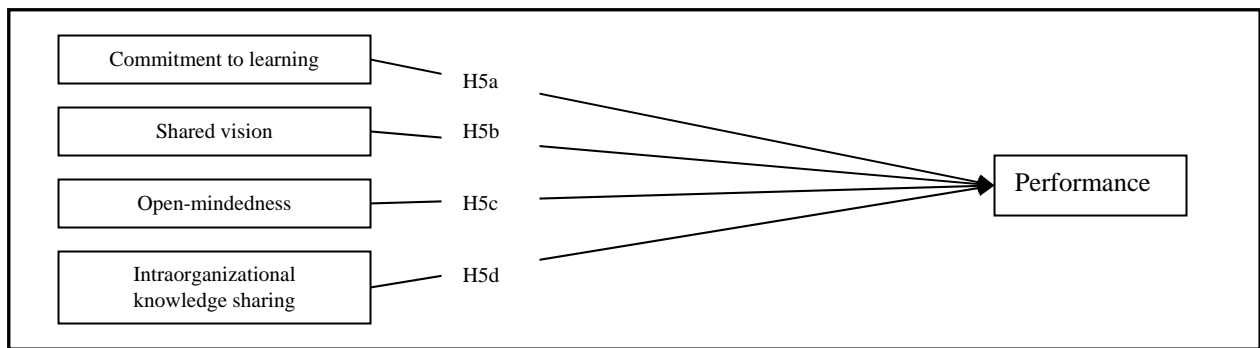


Figure 8. Relationship between Learning Orientation and South Korean Apparel SMEs' Performance

On the basis of the reviewed literature, the following hypotheses are proposed for the relationship between learning orientation and performance.

H_{5a}: In South Korean apparel SMEs, increases in commitment to learning components are related to increases in SME's performance as measured by financial (i.e. ROI, ROA, and ROS) subjective performance.

H_{5b}: In South Korean apparel SMEs, increases in shared vision components are related to increases in SME's performance as measured by financial (i.e. ROI, ROA, and ROS) subjective performance.

H_{5c}: In South Korean apparel SMEs, increases in open-mindedness components are related to increases in SME's performance as measured by financial (i.e. ROI, ROA, and ROS) subjective performance.

H_{5d}: In South Korean apparel SMEs, increases in intraorganizational knowledge sharing components are related to increases in SME's performance as measured by financial (i.e. ROI, ROA, and ROS) subjective performance.

Chapter 4 Methods

This quantitative study is designed to examine relationships among market orientation, learning orientation, and innovation and to explore, specifically, the role of informal relationship as a subcomponent of market orientation. Many authors, such as Kohli and Jaworski (1990), Slater and Narver (1990), Hurley and Hult (1995), and Sinkula (2002), reveal that a firm is more market oriented when the market is competitive and dynamic. For this reason, an investigation of how the apparel SMEs best utilize these variables for enhanced performance, especially in South Korea where competition is both dynamic and severe in this industry was proposed.

Research Method

In order to determine the use of market orientation, learning orientation and innovation as critical factors for SMEs' performance and, specifically, the role of informal relationships in the associated model, a quantitative study using a survey was undertaken in South Korean apparel SMEs. According to Creswell (2003), when a research study is designed to examine significant factors that is designed to predict positive/negative relationships between variables, a quantitative study is considered as the most useful method. This quantitative study adopts a non-experimental single cross-sectional sample design using the survey technique for the data collection method. The greatest advantage of a cross-sectional study with a survey is the simplicity of performing them, while also providing better quality data than other quantitative studies. It is a one-time survey or observation of one or more groups of subjects and is very useful for collecting preliminary data to support subsequent, more extensive studies (Creswell, 2003). This type of research method is appropriate for and often used with managerial and marketing data (Malhotra, Agarwal & Peterson, 1996).

Instrument Selection

In this study, a questionnaire was constructed to measure the variables of market orientation – including informal relationships, learning orientation, and innovation. The questionnaire contained the following three parts: (a) 41 items used to measure the variables of market orientation, learning orientation, and innovation; (b) 5 items for the following measures performance: Return on Investments (ROI), Return on Assets (ROA), Return on Sales (ROS), general profitability and general market share, and (c) 3 demographic items about the type and size of firm and organizational positions of respondents (see Appendix A). Items for the questionnaire were adopted from items in previous empirical studies (e.g. Calantonea, Cavusgila, & Zhaob, 2002; Keskin, 2006; Ko, Kincade, & Brown, 2000; Narver & Slater, 1990; Saara & Tuominen, 2006; Sinkula, Baker, & Noordewier, 1997). All variable items were translated from English to Korean, and were checked by a bilingual Korean professor who knows the apparel field and who knows the purpose of this study. The enumeration of items and variables are provided in Table 5.

Table 5

Variables and Item Numbers for the Survey Questionnaire

Variables	Components	Locations in the Questionnaire	Wording of the Items	Source for the Items
Market Orientation	Customer orientation	Section I Items 1-4	<ol style="list-style-type: none"> 1. Credibility with customers due to being well established in the market. 2. Company or brand name and reputation among customers 3. Relationship with key target customers 4. Providing superior levels of customer service and support. 	Saara & Tuominen (2006)
	Competitor orientation	Section I Items 5-8	<ol style="list-style-type: none"> 1. Salespeople share competitor information 2. Respond rapidly to competitors' actions 3. Top managers discuss competitors' strategies 4. Target opportunities for competitive advantage 	Narver & Slater (1990)

Variables	Components	Locations in the Questionnaire	Wording of the Items	Source for the Items
	Networking - formal	Section I Items 9-13	<ol style="list-style-type: none"> 1. Information sharing with suppliers/retailers 2. Forecasting with suppliers/retailers 3. The distributor can be trusted at all times 4. The distributors can be counted on to do what is right. 5. The distributor has high integrity 	Lee & Kincade (2003) Anbler, Styles, & Wang (1999)
	Networking - informal	Section I Items 14-18	<ol style="list-style-type: none"> 1. Exchanging gifts 2. Personal favors for each other 3. Spending social time together 4. The firms' key managers banquet together 5. Gives/receives favors and information beyond contract with business partners 	Anbler, Styles, & Wang (1999)
Innovation	N/A	Section II Items 1-6	<ol style="list-style-type: none"> 1. Our company frequently tries out new ideas. 2. Our company seeks out new ways to do things. 3. Our company is creative in its methods of operation. 4. Our company is often the first to market with new products and services. 5. Innovation in our company is perceived as too risky and is resisted. 6. Our new product introduction has increased over the last 5 years. 	Calantonea, Cavusgila & Zhaob (2002).
Learning Orientation	Commitment to learning	Section III Items 1-4	<ol style="list-style-type: none"> 1. Managers basically agree that our organization's ability to learn is the key to our competitive advantage. 2. The basic values of this organization include learning as key to improvement. 3. The sense around here is that employee learning is an investment, not an expense. 4. Learning in my organization is seen as a key commodity necessary to guarantee organizational survival. 	Calantonea, Cavusgila & Zhaob (2002).
	Shared vision	Section III Items 5-8	<ol style="list-style-type: none"> 1. There is a commonality of purpose in my organization. 2. There is total agreement on our organizational vision across all levels, functions, and divisions. 3. All employees are committed to the goals of this organization. 4. Employees view themselves as partners in charting the direction of the organization. 	Calantonea, Cavusgila & Zhaob (2002).

Variables	Components	Locations in the Questionnaire	Wording of the Items	Source for the Items
	Open-mindedness	Section III Items 9-12	<ol style="list-style-type: none"> 1. We are not afraid to reflect critically on the shared assumptions we have made about our customers. 2. Personnel in this enterprise realize that the very way they perceive the marketplace must be continually questioned. 3. We rarely collectively question our own bias about the way we interpret customer information. 4. We continually judge the quality of our decisions and activities taken over time. 	Calantonea, Cavusgila & Zhaob (2002).
	Intraorganizational knowledge sharing	Section III Items 13-17	<ol style="list-style-type: none"> 1. There is a good deal of organizational conversation that keeps alive the lessons learned from history. 2. We always analyze unsuccessful organizational endeavors and communicate the lessons learned widely. 3. We have specific mechanisms for sharing lessons learned in organizational activities from department 4. Top management repeatedly emphasizes the importance of knowledge sharing in our company. 5. We put little effort in sharing lessons and experiences. 	Calantonea, Cavusgila & Zhaob (2002)5
Performance	N/A	Section IV Items 1-5	<ol style="list-style-type: none"> 1. Return on investment 2. Return on asset 3. Return on sales 4. Overall profitability 5. Change in market share relative to your largest competitor 	Calantonea, Cavusgila & Zhaob (2002). Narver & Slater (1990)

Selection of these items, based on previous marketing and management studies of performance, increased the content validity of the questionnaire. Many of the items are selected from studies that focused either on apparel firms, including large and small firms, or on SMEs in several industries. Details for each variable covered in the questionnaire are provided in the following sections.

Market Orientation

While Kohli and Jaworski (1990) viewed market orientation as organizational culture, Narver and Slater, (1990) considered it as behavior. From the behavioral view, market orientation can be measured by customer orientation, competitor orientation and interfunctional coordination, which are very important antecedents of innovation in subsequent studies (e.g., Han, Kim & Srivastava, 1998; Keskin, 2006; Narver & Slater, 1990; Saara & Tuominen, 2006; Slater & Narver, 1996). This study employed these three components for the constructs of market orientation.

Four statements were used to represent customer orientation and were adopted from Saara and Tuominen's (2006) study, which is one of the most recent studies of SMEs and is based on previous studies. Each statement was measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Construct reliability (Cronbach alpha) of the measure in the Saara and Tuominen's study is .76 and construct validities using factor analysis for customer orientation components are noted in Table 6. Four statements representing competitor orientation were selected from Narver and Slater (1990). Each statement was measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The construct reliability (Cronbach alpha) construct validities represented as correlations and obtained from the Narver and Slater study are in Table 6.

The network measurement variable was divided into two categories: supply chain and informal relationship. Two item statements measuring supply chain were from Lee and Kincade's (2003) study of U.S. apparel manufacturers. In addition, three item statements, developed by Saara and Tuominen (2006) in their SME study, were adapted to measure supply chain. Each statement was measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). To measure the informal relationship, this study used items, which are originally developed

by Ambler, Styles, and Wang (1999) with no modification for the SME firm and the apparel sector (see Table 6).

Table. 6.

Validity and reliability scores from previous studies and reliability scores from the pilot test for dependent and independent variables

Dependent and Independent Variables		Reliabilities from the Previous Study (Cronbach alpha)	Validities from previous studies (F: factor loading score, C: correlation)	Reliabilities from the Pilot Study (Cronbach alpha)	
Market Orientation	Customer Orientation	.76	.82, .76, .76, and .60 for each item (F)	.84	.85
	Competitor Orientation	.72	.55, .60, .54, and .36 for each item (C)		.74
	Supply Chain (formal network)	N/A	N/A		.77
	Informal Network	N/A	N/A		.79
Learning Orientation	Commitment to Learning	.80	.82, .69, .71, and .75 for each item (F)	.95	.86
	Shared Vision	.79	.85, .73, .70 and .75 for each item (F)		.87
	Open-mindedness	.72	.65, .73, .88 and .63 for each item (F)		.78
	Intraorganizational Knowledge Sharing	.75	.75, .81, .92, .75, and .67 for each item (F)		.80
Innovation		.89	.78, .82, .92, .76, .67, and .76 for each item (F)	.69	
Performance		N/A	N/A	.86	

Learning Orientation

Sinkula, Baker and Noordewier (1997) suggested the following components of the learning orientation variable: (a) commitment to learning (COMMIT), (b) shared vision (VSHARE), and (c) open-mindedness (OMND). Subsequent to the study of Sinkula, Baker and Noordewier (1997),

learning orientation constructs were also operationalized in an empirical study by Calantonea, Cavusgila & Zhaob (2002). They modified the statements used by Sinkula, Baker and Noordewier. Within their 17 modified statements, they developed the following items (a) four statements indicating commitment to learning from Galer and Heijden (1992) and Sinkula, Baker and Noordewier; (b) four statements describing shared vision from Sinkula, Baker and Noordewier; (c) four statements representing open-mindedness from Sinkula, Baker and Noordewier and Hult and Ferrell (1997); and (d) five statements describing interorganizational knowledge sharing from a survey by Hult and Ferrell and field research of Calantonea, Cavusgila and Zhaob. For the current study, the 17 items were used from Calantonea, Cavusgila and Zhaob's study and have no modifications. Each of these statements was measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). From the Calantonea, Cavusgila and Zhaob's study, the construct reliabilities (Cronbach alpha) were reported (see Table 6). The construct validities, analyzed by Churchill's multiple-step and multi-validation method from the Calantonea, Cavusgila and Zhaob's study are also reported in Table 6.

Innovation.

As Calantonea, Cavusgila and Zhaob (2002), Han, Kim, and Serivastava (1998) and Keskin (2006) note, innovation has been measured by innovativeness when examining its importance to the firm's performance. This study employed five item statements to measure innovation and each of these statements was used in the current questionnaire as written in the Calantonea, Cavusgila and Zhaob's study and was measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The construct reliability (Cronbach alpha) value from the Cavusgila and Zhaob's study and the construct validities are reported in Table 6.

Performance

Given the sensitivity surrounding profit information, and a concern about reduced response rates when asking for financial data, researchers have often limited their requests for data to performance measures of firm growth in sales volume and/or numbers of employees. To bridge this problem identified in survey literature, this study used subjective measures and perceptions of objective measurements. The subjective measurement reflected the direct perceptions of respondents, and the perceptions of objective measurement included indirect indications of performance. The subjective measures included two questions concerning a firm's assessment of its overall performance of the business and market share measured as its performance relative to major competitors. This is an idea that was proposed by numerous researchers (e.g., Jaworski & Kohli, 1993; Verhees & Meulenber, 2004). Perceptions of objective measure of performance were those that request information about change in market share relative to competitors (Jaworski & Kohli, 1993; Mavondo, Chimhanzi, & Stewart, 2005; Verhees & Meulenber, 2004). For these objective-type measures, the following three metrics were used: return on investment (ROI), return on assets (ROA), and return on sales (ROS) (Calantonea, Cavusgila & Zhaob, 2002). Five item statements representing those components were measured by using a five-point Likert-type scale, ranging from 1 (much worse than competitors) to 5 (much better than competitors).

Demographic questions included multiple choice questions about the position of respondents, number of employees, and how many years the respondent's company has been in apparel industry for reliability. These questions were based on demographic questions from the studies of Sinkula, Baker, and Noordewier (1997) who have examined manufacturers in diverse industries and from Jang, Dickerson, and Hawley (2005) and Lee and Kincade (2003), who have examined apparel manufacturers including SMEs.

Validity and Reliability

After IRB approval, a pilot test was conducted to evaluate reliability in comparison with the information noted from previous studies and to evaluate the questions that were adapted or newly generated. The sample profile and size for the pilot test were managers at 50 Korean apparel SMEs. Before the pilot study, phone interviews were conducted with ten managers to finalize the wording of the questionnaire. In addition to responding to the questionnaire, the managers were also asked to provide input about any wording or other grammatical changes that are needed. Of the 50 collected surveys, 18 were identified as having too many unusable data (i.e., more than five missing items per questionnaire) for the pilot test; therefore, 32 questionnaires were usable.

Following the data collection for the pilot test, the researcher used the SPSS reliability analysis to check the inter-item consistencies in each multi-item measure for construct validity. A Cronbach's alpha score larger than .7 is considered to be a reliable measure (Ott & Longnecker, 2000). The single component variables and the multiple components were formed based on the preset formation of items from previous studies and pilot test results. According to the SPSS reliability test, all Cronbach alphas were higher than .7 except for the value for learning orientation, which was .69 (see Table 6). These values have an excellent correspondence with the values from previous studies. For this reason, no further analysis of reliability was done for the variables in the study's data set.

Sample

The definition of SMEs has often varied from study to study, country to country, and from one researcher's view point to another; however, one of the primary ways to define SMEs is according to the size of the company. Prior to selecting the sample on the basis of company size,

management and other literature was reviewed as to where the size range should fall in the definition of SMEs in the South Korean perspective. The South Korean Small and Medium Enterprise Authority and Federation of Small and Medium Enterprises (2006) defined employee numbers for manufacturing SMEs as firms having less than 300 in 2000, while a similar organization in the European Union (EU) considered SMEs to include firms with fewer than 250 employees (Eurostat, 2006). Based on the numbers found in these two sources, SMEs with less than 250 employees or with less than Euro 50 million of Net Worth were subjects of this study. Sinkula, Bakers and Noordewier (1997) suggested that a sample for an SME survey should include upper-level managers as the recipients of the questionnaire. This is similar to the sample addressing strategy of the surveys done by Kincade (1995), Ko and Kincade (1998), and Lee and Kincade (2003) in surveys of firms in the U.S. apparel sector. Employees at the upper-level management stage are considered to have the expertise to respond to questions about operational strategies (e.g., marketing orientation) and performance measures. Thereby, samples of this study were top managers.

For cost and time efficiency based on availability of complete listings, this study used sample selection from a convenience sampling frame by surveying subcontractors and vendors of a Golf Wear, a Women's Wear, and a department store located in Seoul, South Korea. Using multiple convenience sampling units in the sampling process was used by Park, Burns, and Rabolt (2007) in a study with 222 apparel manufacturers. Although this seems to be a narrow sample, the units in this sampling frame are actually quite large in number and are diverse in composition. This convenience sampling technique is one of nonprobability sampling methods to increase internal and external validity. According Ott and Longnecker (2000), nonprobability sampling method is

an effective and practical sampling tool and is more economic than probability sampling method because of its simplicity. It is frequently used in management research.

According to the South Korea Standard Industry Code (KSIC), the apparel sector within the apparel and textile industry is categorized by code 18 and 19. These codes contain the categories of *Manufacture of Sewn Wearing Apparel and Fur Articles* and *Manufacture of Leather, Bags and Footwear* (Korea National Statistical Office, 2007). The subcategories within code 18 and 19 are listed in Table 6. These subcategories contain firms that manufacture apparel or apparel related products. In this study, subcontractors refer to firms that provide necessary materials to the manufacturers. They collect parts that do not belong to the manufacturers. Manufacturers imply firms that produce and sell final goods. This study not only included apparel manufacturers who own their own manufacturing plants and retail stores but also included the subcontractors who produce and provide apparel goods to contractors, which is a common practice in apparel related studies (e.g., Kincade, 1995; Ko & Kincade, 1998; Lee & Kincade, 2003).

The numbers of South Korean apparel SMEs, which fall into KSIC categories of 18 and 19, are 23,974 companies for *Manufacture of Sewn Wearing Apparel and Fur Articles* and 23,155 for *Manufacture of Leather, Bags and Footwear*, resulting in a total of 47,129 firms eligible to receive the survey (Small and Medium Enterprise Authority and Federation of Small and Medium Enterprises, 2006). This study excluded manufacturers of bags and footwear because they have very different manufacturing systems from those of apparel. Footwear requires very technology and capital intensive production equipments while apparel products need labor intensive manufacturing systems (Endo & Kincade, 2005). This practice of using only products made from textiles and not fur or leather has been used by numerous researchers in the apparel industry (e.g., Ko & Kincade, 1998; Lee & Kincade, 2003). To increase the accuracy of the lists used for

sampling, which should increase return rate, and to be inclusive of the targeted population desired for sampling, this study selected three major sources for the sample. Being accurate and inclusive is needed to improve both the reliability and the validity of the sample.

Table 7.

Korean Apparel and Textile Industry Category by KSIC

Industrial Group Code of Manufacturing	Industry Code	Industry Code of Apparel	First Subcategory	Second Subcategory	
D	18				Manufacture of Sewn Wearing Apparel and Fur Articles
D	18	1			Manufacture of Sewn Wearing Apparel
D	18	1	1		Manufacture of Suits and Coats
D	18	1	1	1	Manufacture of Men's Suits and Coats
D	18	1	1	2	Manufacture of Women's Suits and Coats
D	18	1	2		Manufacturer of hosiery products
D	18	1	2	0	Manufacturer of hosiery products
D	18	1	3		Manufacturer of Korean Custom
D	18	1	3	0	Manufacturer of Korean Custom
D	18	1	4		Other Sewn Wearing Apparel
D	19	3			Manufacturer of Footwear
D	19	3	0		Manufacturer of Footwear
D	19	3	0	1	Men's and Ladies' Shoes
D	19	3	0	2	Manufacturer of Other Footwear products
D	19	3	0	3	Manufacturer of shoe accessories and cutting products

The following sources were used for the sampling frame: (a) subcontractors and parts of department stores which must be involved in apparel industry and be SMEs; (b) subsidiaries and subcontractors of a large-sized golfwear company, and (c) subsidiaries and subcontractors of a medium-sized women's apparel company.

The first source was a listing of the companies, which are vendors of the biggest department stores in South Korea, Hyundai Department Store. This department store captures 28.4% of the share in the South Korean retail market and has 11 franchise department stores throughout South Korea (Annual Audited Statement, 2006). Total employees in the department

store firm are 25,000, and its sales revenue is mostly derived from apparel related product sales (i.e. 80.39%). Total sales revenue was \$3,276,000,000,000 in 2004. The SMEs included in their vendor list are considered significant manufacturers of apparel merchandise as sold in the department stores. Lists of companies that are vendors for the department stores were available from the deputy managers of the department store. From this source, 200 South Korean apparel and textile SMEs, categorized by the KSIC were available. They included women's, mens, young mens, childrens, and active wear manufacturers.

The second source was a listing of the subcontractors for the biggest golf wear company in South Korea, Lee Dong Soo Golf Wear Company. This golfwear company is a major manufacturer in South Korea with approximately 300 employees and total sales of \$ 35.7 million in 2006 (An audit of financial statements, 2007). This company owns two brands, which are targeted to 35 year old women with the concept of "High Quality Designer Character Boutique" and to 35 year old men and women with the concept of "High Quality Designer Character Golf-Wear". These brands originated in South Korea. Considering that the South Korean golf wear market is comprised mostly of foreign brands such as Ralph Lauren, Arnold Parma, and Munsing, this brand's success is important in the South Korean golf wear industry and this firm is a major manufacturer for South Korea. Firms within this firm's subcontractor list included firms that manufacture knit wear, women and men's wear, general sports wear, and textile manufacturing companies (Manager of Subsidiaries, Personal Interview, November 10, 2007). A list of subcontractors of the Lee Dong Soo Golf Wear Company was acquired from this company's manager of subcontractors. Eighty South Korean apparel and textile SMEs were available through this source.

A third source was the listing of contractors working for a major women's apparel company in South Korea (i.e., Diaprer Women's Wear). This company was launched in 1996. The

products of this company are targeted to 35-60 year old women, and it produces women's wear and golfwear. Employee numbers of this company are approximately 80 and total sales revenue is \$7 million in 2006. They have 22 retail shops in South Korea and two retail shops in China. Among their vendors, this company has (a) 30 contractors, (b) five main suppliers for necessary raw materials and numerous temporary suppliers, and (c) three main logistics companies in South Korea. In China, this company has two manufacturing plants, five main contractors and ten business partners (The Owner of Diaprer, Personal Interview, October 12, 2007). In addition to the contractor list, a list of Korean Apparel and Textile Industrial Association members was available because the owner of Diaprer Women's Wear, who is a member of the association, provided a member directory. Approximately 80 companies were acquired through this source.

Data Collection

A protocol submission package including the procedures and data collection methods was sent to the Institutional Review Board (IRB) for Research Involving Human Subject for approval following the approval by the proposal defense committee. After IRB approval for this study of human subjects, a pilot test on 50 respondents, who were not part of the final study, was conducted. When the questionnaire was finalized, a self-administrated survey, through a technique used by Kwon, Joshi and Jackson (2007) in their empirical study with 1,026 samples in apparel industry, was sent to the sources of the lists (i.e. manager of subcontractors of Lee Dong Soo, two deputy managers of the Hyundai Department Store, and owner of Diaprer Women's Wear). These representatives knew the purpose and objective of this study. They were contacted by e-mail. They distributed hard copies of the questionnaires to respondents using face-to-face meetings in South Korea whenever the potential respondents visited their office. Data collection took two weeks for

pilot test and another four weeks for final test. After reliability analysis with data for pilot test, data for final test were collected in South Korea. Three packages of questionnaire were made by mail to the deputy manager of the Hyundai Department Store, and he sent the final package of questionnaires to the researcher in the United States by mail.

Data Analysis

Following the data collection, both single component variables and the multiple components were formed based on the preset formation of items from previous studies and pilot test results. Averages for the items were used to form scores for each variable or for the components of multiple component variables. For example, scores of the four customer orientation measurement items in the questionnaire, as identified in Table 5, were averaged to form the value for the customer orientation component score.

After variable and component formation, single and multiple linear regression analyses, as appropriate, were used for assessing the relationships between the two independent variables (i.e., marketing and learning orientation) and innovation and between the three independent variables (i.e., the two orientations and innovation) and the one dependent variable (i.e. SMEs' performance), according to Hypotheses 1-5. Linear regression analysis helps to predict the direction and strength of the relationship between variables (Ott & Longnecker, 2000).