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The Effect of Market Orientation, Learning Orientation and Innovativeness on Firm Performance: A Research from Turkish Logistics Sector

Engin Deniz Eris¹, Omur Neczan Timurcanday Ozmen²

Abstract

As it is emphasized in marketing, management, and strategic management literature, “market orientation”, “learning orientation”, and “innovativeness” are regarded together as having a significant impact on a firm’s performance. The objective of this study is to find out the interrelationships of these variables and their impact on performance in the Turkish logistics sector by using Structural Equation Modeling. The research findings revealed that the firms in the logistics sector in Turkey are market oriented, learning oriented, and innovative and that all variables are effective on performance enhancement.

Keywords: Market Orientation, Learning Orientation, Innovativeness, Performance, Logistics

JEL classification: L25, M10, M31

1. Introduction

A variety of strategies aimed at gaining a competitive advantage are discussed in the management and marketing literature. One of the most important variables examined at a theoretical and practical dimension within such competitive strategies has been performance. Interactions of variations were analyzed in various discussions and studies concerning increase in performance, which is discussed as an important conclusive variable in the literature. This approach depends on the Resource Based Theory in common and dealt with in strategy paradigm as a way of being strategic oriented.

The strategy, dealt initially in the marketing literature since the 1990s, but later discussed in management literature as well, was to increase overall firm performance by using market orientation, learning orientation and innovation together. For this purpose, when the literature was examined, first the impact of three variables on performance was independently evaluated; later explanations were put forward concerning the impacts of these variables in conjunction with performance.

Market orientation in the marketing literature is analyzed in terms of different aspects,

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such as a source (Hunt and Morgan, 1995), a decision-making instrument (Shapiro, 1988), a behavior and actions (Kohli and Jaworski, 1990), an organization culture variable (Day, 1994a; Deshpande et al., 1993; Narver and Slater, 1990; Slater and Narver, 1995a; 1995b). The concept, as discussed by Kohli and Jaworski (1990), becomes prominent on the basis of behavior (creating market information and the spreading of this information within the organization) and processes (formation of the marketing plan to satisfy customer wishes), and in terms of cultural orientations (competitor orientation and customer orientation as well as interfunctional coordination) as discussed again by Narver and Slater (1990). Empirical studies are generally carried out on the basis of these two approaches. Research studies conducted in recent years also discuss different dimensions in the measurement of market orientation. For instance, Narver and Slater, two of the researchers conducting primary studies concerning the concept in the early 1990s, together with MacLachlan, assessed these two dimensions in market orientation through different assessment tools aimed at customers' existing requirements (responsive) and customers' requirements which they are not yet aware of (proactive) (Narver et al., 2004).

Sinkula (1994), Slater and Narver (1995b), by also mentioning the impact of learning orientation among marketing operations, put forward the conclusion that market orientation will be substantially more effective with the help of learning orientation. Han et al. (1998) stressed that innovation must also be analyzed to identify the relationship between market orientation and performance, while Calantone et al. (2002) stressed the importance of innovative capacity between learning orientation and performance. These two approaches laid the foundations of the relationship pattern between market orientation - learning orientation and innovativeness and performance. Other researches regarding this relation pattern have been carried out by Hurley and Hult (1998), Baker and Sinkula (1999b) and Hult et al. (2005).

In 1990s, while logistics came to the agenda as a strategically important matter for companies, the fact that research studies have to be guided for theorization and strategic positioning in logistics (Olavarrieta and Ellinger, 1997) was pointed out; subsequently, in the following period, there was an increase in the number of studies carried out in the fields of supply chain management and logistics, and some empirical studies were also conducted (Steinman et al., 2000; Baker et al., 1998; Panayides, 2004b; 2007a). However, while it is expressed that the number of studies conducted was insufficient and that theoretical discrepancies existed, studies were grounded on resource based theory and analyzed in terms of strategic aspects.

We find that the study's approach was discussed in production firms during the 1990s when such an approach was conceptualized, while it was dealt with by the service sector in the 2000s. The approach was basically adopted in the United States of America, followed by Germany, Australia, Belgium, the United Kingdom, Bulgaria, China, Ghana, Finland, France, the Netherlands, Hong Kong, Scandinavia, Spain, Japan, Canada, Hungary, Malta, Poland, Russia, Slovenia, Saudi Arabia, Taiwan, Ukraine, New Zealand, and Greece, where it was analyzed on the basis of different variable components and under various impacts of mediation and regulations.

As explicitly mentioned by researchers (Deshpande and Farley, 1998,a,b); Kaynak and Kara, 2004; Zhou et al., 2005) working on the market orientation concept, market orientation and other related variables generally discussed in western countries must be discussed in developing economies, too. With market orientation being the basic variable in Turkey, some theoretical and empirical studies have been carried out examining the learning orientation and innovativeness and relationship between each of these variables, as well as relationship between the variables and firm performance (e.g. Keskin, 2006). However, the model in this study is still new in Turkey and, therefore, no comprehensive analysis has been conducted. The model has not yet been tested for the logistics sector, which is the main research field of the study.

As is examined in previous studies, there is a causal relationship between variables. The findings of the research studies leads to the conclusion that the organizations in the logistics sector in Turkey are market oriented, learning oriented and innovative, and in addition to the variables indicated, they are all contributing to performance enhancement.

2. Market Orientation Behaviour

While the first theses on market orientation were first put forward by Drucker, the conceptual framework was established in the 1990s (Narver et al., 1998); it was also ethnographically discussed (Arnould and Wallendorf, 1994) and then examined through different variable components in 2000s.

Three different approaches are observed in the market orientation literature. In the first approach, Kohli and Jaworski (1990) structured the market orientation theory and placed it in the marketing concept. Having examined the 35 year old marketing literature as well as other related literature in their studies, Kohli and Jaworski (1990) expressed that along with the fact that there is no explicit and clear definition regarding the concept, no interest was shown in the assessment of the concept and there is no theory based on an empirical basis. In the second approach, Narver and Slater (1990) conducted the first functional computation regarding the concept and argued that there was a positive correlation between market orientation and operational profitability. Both papers have pioneered those studies conducted in 1990, which exhibit the impact of market orientation on the outputs of enterprises (Narver et al., 2004). In the third approach, Becker and Homburg (1999) studied the concept in terms of its managerial aspects through a system-based approach.

In the literature, researchers put a variety of variables on market orientation forward. Kohli and Jaworski (1990), pioneers of the concept, referred to three basic dimensions: i) intelligence generation, ii) intelligence dissemination and iii) responsiveness. Other pioneers Narver and Slater (1990), on the other hand, identified sub-dimensions of market orientation as customer orientation, competitor orientation and inter functional coordination. In the studies which have been conducted to date, researchers carried out their investigations on these two basic paths, while restructuring studies concerning the concept are still under way (pls. refer to Lings, 2004; Narver et al., 2004).

Empirical studies on the relationship between market orientation and performance,

conducted in 1990s, were found insufficient (Greenley, 1995). While in most studies, there were findings indicating that market orientation increases firm performance positively and significantly (Peterson, 1989; Narver and Slater, 1990; Kohli and Jaworski, 1990; Meziou, 1991; Ruekert, 1992; Jaworski and Kohli, 1993; Deng and Dart, 1994; Slater and Narver, 1994; Fritz, 1996; Lambin, 1996; Pelham and Wilson, 1996; Pitt et al., 1996; Horng and Chen, 1998; Oczkowski and Farrell, 1998; Pulendran et al., 2000; Slater and Narver, 2000; Calantone et al., 2002; Maydeu-Olivers and Lado 2003; Pulendran et al., 2003; Hult et al., 2004; Tse et al., 2004; Panayides, 2004a; Aldas-Manzano et al., 2005); other studies argued that there was no significant or direct relationship of that kind (Greenley, 1995; Bhuian, 1997; Han et al., 1998; Caruana et al., 1999; Sargeant and Mohammad, 1999; Noble et al., 2002; Perry and Shao, 2002; Olavarrieta and Friedmann, 2008). Even though it was asserted that there was no significant relationship (Hart and Diamantopoulos, 1993) or that there was a composite relationship (Jaworski and Kohli, 1993; Greenley, 1995), some studies again mentioned that market orientation, by means of, for instance, some exterior factors and the regulatory impact, enhance performance (Hart and Diamantopoulos, 1993; Slater and Narver, 1994a; Greenley, 1995; Appiah-Adu, 1997; Appiah-Adu, 1998; Chang and Chen, 1998; Kumar et al., 1998; Harris, 2001). One of the other conclusions reached was that the relationship between market orientation and performance appeared to be positive in studies carried out in the United States of America, while studies conducted in other countries found a diminished relationship and even that it became ineffective (Kumar et al., 1998). Similar results have been obtained in studies carried out in different countries and cultures in recent years.

3. Learning Orientation Behaviour

Authors discussing the concept express market orientation, as a system of values aimed at an entire organization, the creation of information and sharing it across the organization (Kohli and Jaworski, 1990; Day, 1994a; 1994b; Sinkula, 1994; Slater and Narver, 1995b). The focus on the creation of customer value and market orientation (Shapiro, 1988; Kohli and Jaworski, 1990; Narver and Slater, 1990; Deshpande et al., 1993; Day, 1994a; Slater and Narver, 1995a; 1995b) requires proper analysis of customers and competitors as well as the ultimate creation and sharing of proper information by collecting correct data. Firms, by properly determining any type of learning source (suppliers, customers, competitors, other sectors, etc.) must ensure dataflow. Deshpande and Webster (1989) argued that because each organization is a cognitive entity, they represent an appropriate means to obtain information from the market by focusing on the organizational memory. Similarly, in their research studies, Hult and Ferrell (1997) questioned the relationship between the market data processing process and organizational learning. The learning orientation concept is related to an organization's learning capability, as well as its culture and system structure. At this point, it is argued that firms are required to possess an organizational learning capability in order to be learning-oriented.

While it is well known that learning oriented firms create a culture which conducive to a learning environment, it is possible to argue from explanations of Narver and Slater (1990)

and Slater and Narver (1995b) that market and learning orientations have institutionalized similar approaches in terms of creating customer value. On the other hand, as the point that can also be expressed as an inadequacy, market orientation generally supports conformist learning; however, in order to be learning oriented, creative learning is required (Farrell and Oczkowski, 2002). Here, the goal is not only to learn something new or to adapt an innovation, but also to create new information and innovations in line with data obtained from the market, as well as to establish a system to share it across the organization.

Learning orientation is discussed as a concept relevant to organizations' knowledge reation and usage capabilities (Sinkula et al., 1997). Learning orientation is also the initial indicator forming organization learning capability (Hult and Ketchen, 2001) and expresses an organizational framework of values defining information creating, sharing and usage capability (Sinkula et al., 1997). The examination of individual learning in terms of organizational processes is also in question (Cohen, 1991); first of all, individual learning must be allowed in firms if they are to be learning oriented. For this, either the learning level of the employees within the organization must be raised, or members from outside, who are equipped with new information, must join the organization (Simon, 1991). When analyzed in terms of market orientation, Celuch et al. (2000) discussed individual learning and market orientation as a subject which is required for organizations to be market oriented. Again, Celuch et al. (2002) probed learning orientation together with market orientation and in terms of organizational capabilities. However, since only learning orientation at a macro organizational level is considered in line with the purpose of the study, the subject of individual learning is off-topic.

In literature, three fundamental organizational values (commitment to learning, shared vision, open-mindedness) (Sinkula et al., 1997) aimed at organizations' learning tendency and a basic variable (intra organizational knowledge sharing) (Calantone et al., 2002, p. 516), which is necessary for the organizational learning structure, are discussed.

While learning orientation is mostly directly linked to the performance of the firms, some researchers reached such conclusions that there is no such direct relation. Santos-Vijade et al. (2005) express on one hand that learning orientation has no direct or significant impact on the performance of the firm; they also reached the conclusion that learning orientation supports market orientation and thus, impacts the performance of the firm. Yılmaz et al., (2005) held face-to-face talks with the managers of 143 production firms in Turkey and thus, reached at the conclusion that there was a meaningful and positive correlation between learning orientation and objective performance.

4. Innovativeness

Organizations' tendency towards markets and innovations is discussed within the approach of strategic orientation and is questioned in terms of its relationship with various performance outputs of firms, such as their productivity, effectiveness and efficiency (Zhou et al., 2005). The foundations of this approach are based on the discussion of the innovativeness concept in literature, usually as a part of firm strategies from past to present (Capon et al., 1992).

When studies in literature are examined (Han et al., 1998; Berthon vd, 1999; Berthon et al., 2004), it is found that it is difficult to express clear definitions for and to set definite boundaries between concepts such as innovation, innovativeness, innovation orientation and innovation capacity. Although there is no clear classification for these concepts in literature, there are definitions which are generally accepted by researchers and authors. While authors were generally using concepts such as innovation and innovativeness in their studies in 1990s, some others (e.g. Berthon et al., 1999; Nambisan, 2002; Narver et al., 2004; Olson et al., 2005; Siguaw et al., 2006; Simpson et al., 2006) subsequently begun using the concept known as innovation orientation, but lack a clear distinction between innovativeness and innovation orientation in their studies.

Innovation is a concept with an important bearing on economic performance. However, it is discussed through three basic approaches at the organizational level. In the first approach, innovation is the determinant of economic performance, whereas in the second approach economic performance is deemed to be a determinant for innovation activities. The third approach, on the other hand, discussed a bidirectional dynamic relation between innovation and economic performance (Cainelli et al., 2006).

5. Relationships between Market Orientation, Learning Orientation, Innovativeness and Performance

Within the framework of Resource Based Theory, market orientation, innovation and organizational learning altogether bear a unique source for firms (Hult and Ketchen, 2001). In 1990 in particular, following the studies carried out by Narver and Slater and Kohli and Jaworski, the market orientation concept was linked to various variables and today, the impacts of concepts such as market orientation, learning orientation and innovativeness on each other and on the performance of enterprises, first discussed by Hurley and Hult (1998) are still examined.

5.1 Market Orientation – Learning Orientation – Performance

In the organizational learning literature, it is questioned how organizations learn and how they turn what they learn through their own market/marketing capabilities into a competitive advantage (Bell et al., 2002). As it is stated there are similarities between organizational learning and market orientation. However, researchers have yet to reach any consensus on which variable is the reason or result of another variable (Santos-Vijande et al., 2005). The most dominant approach linked to the subject is based on the idea that, as mentioned by Narver and Slater (1995), the market orientation approach must be a basis for the improvement of the learning environment. On the other hand, it is expressed that market orientation and learning orientation essentially take joint norms and values as a basis and thus, need to be analyzed together and on a common ground, without taking the direction of influence into account (Bell, 2002).

In market oriented firms where a market data processing process is required, it is

obvious that there is lack of interpretation and memory functions. In this context, the need for learning orientation arises (Baker and Sinkula, 1999a; 1999b). In literature, along with market orientation, learning, particularly learning from customers is essential (Ottesen and Gronhaug, 2004).

The answer to the question of how market oriented firms learns has to be considered as individual learning and discussed as the creation, interpretation and memorization of information. As for individuals, such organizations have to find what they need to learn, and how they need to learn it, from the market at the same time (Day, 1994b). Learning from the market is common for market orientation and learning orientation, both processes being effective in raising the performance of the firm. Some of the research studies examining the relationship between these three variables and findings are shown in Table 1.

**Table 1: Summaries of Some Studies Concerning Market Orientation –
Learning Orientation and Firm Performance**

Researchers	Countries	Type of Enterprises	Findings
Baker Sinkula 1999a	USA	411 Small and Big Sized Enterprises	<ul style="list-style-type: none"> - Market orientation has impact on performance. - Learning orientation has impact on performance. - Market orientation has more impact on performance with the mediation of learning orientation. - Market orientation has impact in the increase of market share with the mediation of learning orientation. - Market orientation and new products' performance decrease with the mediation of learning orientation.
Farrel Oczkowski 2002	Australia	340 Manufacturing Enterprises	<ul style="list-style-type: none"> - Market orientation and learning orientation have impact on performance. - Learning orientation is more dominant on performance than market orientation is.
Liu Luo Shi 2003	China	304 State Enterprises	<ul style="list-style-type: none"> - Market orientation enhances performance. - High market orientation supports higher learning orientation.
Santos-Vijande Sanzo-Perez Alvarez-Gonzalez Vazquez- Casielles 2005	Spain	272 Middle and Big Sized Enterprises	<ul style="list-style-type: none"> - Learning orientation supports market orientation. - Market orientation has impact on performance. - Learning orientation has no significant impact on performance.

Source: Generated by authors.

5.2 Market Orientation – Innovativeness – Performance

Drucker, one of the leading pioneers to discuss the philosophy related to the marketing concept in the field of business administration, envisaged that firms have two basic functions: marketing and innovation. In this context, while there was such an early tendency towards discussing market orientation and innovativeness together (Olavarrieta and Friedmann, 2008), studies in the literature concerning market orientation and innovativeness only began to be analyzed empirically towards the end of the 1990s (Han et al., 1998; Berthon et al., 1999; Berthon et al., 2004).

Market orientation and innovation orientation are shown as two basic concepts related to strategic orientation, particularly by Berthon et al., (1999). It is stressed that these two concepts must definitely exist within an organization for the innovation outputs of such organization (Zhou et al., 2005; Laforet, 2008).

Market orientation essentially requires innovative action in accordance with the market's conditions and expectations. Therefore, it is deemed as an innovative act, and these two concepts are approached together. The item of importance in terms of marketing is the satisfaction of customers' needs, which will be eased through innovative practices and new goods and services.

Marketing and innovativeness are discussed in the marketing literature, particularly in terms of product innovativeness. While a study conducted by Lawton and Parasuraman in the 1980s found no significant relationship between the marketing approach and product innovativeness, researchers such as Atuahene-Gima (1996), Gatignon and Xuereb (1997), and Lukas and Ferrell (2000) have, in the following periods, reached the conclusion that there was a positive and significant correlation between market orientation and product innovativeness.

The impact of market orientation and innovativeness, which assume an important place in marketing literature, on firm performance is clearly accepted (Theoharakis and Hooley, 2008). Related studies are summarized in Table 2.

Table 2: Summaries of Some Studies Concerning Market Orientation – Innovativeness and Firm Performance

Researchers	Countries	Type of Enterprises	Findings
Deshpande Farley Webster 1993	Japan	50 Manufacturing Enterprises	- Customer orientation has impact on performance. - Innovativeness has impact on performance.
Han Kim Srivastava 1998	USA	134 Bank	- Innovativeness acts as a mediator between market orientation and performance. - Particularly customer orientation has impact on innovation. - Innovation has direct impact on performance.
Matear Osborne Garrett Gray 2002	New Zealand	231 Service Enterprises	- Market orientation has positive and meaningful impact on performance. - When market orientation, innovativeness and performance are approached together, it is observed that innovativeness acts as a mediator between market orientation and financial performance.
Salavou 2002	Greece	61 Small and Middle Sized Enterprises	- Market orientation enhances performance. - Product innovation is a mediator between market orientation and performance.
Maydeu-Olivers Lado 2003	European Union	122 Insurance Enterprises	- Market orientation has impact on operational performance. - Innovativeness is a mediator variable between market orientation and operational performance. Innovation performance and the level of being innovative act as separate mediators in such relation.
Erdil Erdil Keskin 2005	Turkey	55 Manufacturing Enterprises	- Market oriented strategies are directly related to the enterprise's innovativeness. - Innovativeness affects performance positively.
Olavarrietta Friedmann 2008	Chile	116 Commercial Enterprises	- Innovativeness has impact on the general performance of the enterprise. - Innovativeness is a mediator variable between market orientation and general performance of the enterprise.

Source: Generated by authors.

5.3 Learning Orientation – Innovativeness – Performance

Innovation is the name given to the transformation of knowledge into economic actions. Innovation, which is dealt as a process based on learning from different sources and adaptation, is a basic prerequisite for economic growth (Tang, 2006). While importance is attached to the impact of organizational factors on innovation, it is assumed that organizational learning, in particular, plays a key role in defining innovation (Aragon-Correa, 2007). Knowledge management within learning, on the other hand, plays a crucial role for innovation (Prajogo and Ahmed, 2006).

One of the definitions given for organizational learning in literature is that organizational learning raises quality, strengthens customer - supplier relations, eases implementation of business strategies and provides sustainable profitability (Mills and Freisen, 1992). Sustainable profitability is an indication of top-level performance and learning from the past and learning with experience, in particular, is required to provide it. Learning is realized with the procurement of information from the right place as well as its proper usage. Innovative results are obtained through the proper use of knowledge (Padmore et al., 1998). In this context, firms develop strategies related to learning and thereby form a basis for processes regarding innovativeness as well.

A significant issue that Greenhalgh et al., (2004) mentioned in their studies concerning the acceptance of innovation in service sector enterprises has been use of information for innovation within the organization. A fundamental purpose of innovativeness in firms is to create new information and instruments, which will ensure organizational development, and many researchers argue that organizational performance - the indicator of such development - is closely related to organizational learning (Aragon-Correa, 2007).

One of the other issues discussed in the literature is the need for developing different types of learning methods for different types of innovation (McKee, 1992). Learning and innovation can be discussed together but within different structures. As mentioned by Stata (1989), the basic problem in firms is not the incapability of creating innovation or unsuccessful innovative attempts, but incapability of teaching the management of innovation. Innovation is a term used for creation, acquirement and adaptation of new ideas, processes, goods or services. Due to the nature of dataflow within a cycle, learning orientation and innovation are seen to be closely related. Among values required for organizational innovativeness, use of information and continuous learning approach are included, a situation which shows that there is a high level of correlation between the two concepts (Wong and Chin, 2007).

An important point in the relationship between learning and innovation is that learning lays a foundation for innovation, because an organization's dependence on learning increases its innovation capacity, while at the same time influencing its overall firm performance. Some of the studies concerning relationships between learning orientation, innovativeness and performance and findings obtained through these studies are summarized in Table 3.

Table 3: Summaries of Some Studies Concerning Learning Orientation – Innovativeness and Firm Performance

Researchers	Countries	Type of Enterprises	Findings
Calantone Cavusgil Zhao 2002	USA	187 Research & Development Enterprises	- Learning orientation has impact on innovativeness. - Learning orientation has impact on performance. - Innovativeness has impact on firm performance. - Age of the organization is regulatory between learning orientation and innovativeness.
Flint Larsson Gammelgaard Mentzer 2005	USA Scandinavia Europe	7 Logistics Enterprises	- Organization learning has impact on innovativeness.
Panayides So 2005	Hong Kong	251 Logistics Enterprises	- Organizational learning and innovativeness are positively correlated. - Innovativeness enhances performance.
Aragon-Correra Garcia-Morales Cordon-Pozo 2007	Spain	408 Big Enterprises	- Innovativeness has direct impact on performance. - Organizational learning has direct impact on innovativeness. - Organizational learning and performance are directly related. - Organizational learning and innovativeness together have bigger impact on firm performance.

Source: Generated by authors.

5.4 Market Orientation – Learning Orientation – Innovativeness – Performance

In initial research studies questioning the relationship between market and learning orientations and firm performance, innovativeness has been a neglected variable. On the other hand, Deshpande et al. (1993) and also Menon and Varadarajan (1992) associated market orientation with the innovativeness culture. In another study, Jaworski and Kohli (1996) also argued that innovativeness was missing in the model. A study regarding the model was also conducted in Turkey by Keskin (2006) and the impact of three variables on performance was tested in small and middle-sized enterprises in Turkey. In the literature, market orientation, learning orientation and innovativeness are discussed as a fundamental strategic approach and research studies are made on the basis of various variable components concerning the subject. Some of the studies conducted in this context are summarized in Table 4.

Table 4: Summaries of Some Studies Concerning Market Orientation – Learning Orientation – Innovativeness and Firm Performance

Researchers	Country	Type of Enterprises	Findings
Hurley Hult 1998	USA	R&D Enterprises	<ul style="list-style-type: none"> - Market orientation and learning orientation are antecedents for innovativeness. - Innovativeness raises innovation capacity. - Firms with high innovation capacity show higher performance.
Baker Sinkula 1999b	USA	Small and Big Sized Enterprises	<ul style="list-style-type: none"> - Product innovativeness is a function of market orientation and learning orientation. - Market orientation has no direct impact on performance. - Market orientation has impact on performance through the mediation of product innovativeness. - Learning orientation has direct impact on performance, but also indirect impact through product innovativeness.
Noble Sinha Kumar 2002	USA	Retail Chain Stores	<ul style="list-style-type: none"> - Competitor orientation is related to performance in any occasion. - Customer orientation is not related to performance. - Impact of a mediator between market orientation and performance must be searched for. - There is a positive relation between learning orientation and performance; and learning orientation acts as a mediator between market orientation and performance.
Hult Hurley Knight 2004	USA	181 Middle and Big Sized Enterprises	<ul style="list-style-type: none"> - Innovativeness is positively related to operational performance. - Market orientation is positively related to innovation. - Learning orientation is positively related to innovativeness.
Keskin 2006	Turkey	157 Small and Middle Sized Industrial Enterprises	<ul style="list-style-type: none"> - Market orientation has no direct impact on operational performance. - Innovativeness has direct positive impact on performance. - Learning orientation has positive impact on innovativeness. - Market orientation has positive impact on learning orientation. - Learning orientation acts as a mediator between market orientation and innovativeness.

Source: Generated by authors.

In this approach, which forms the model of the study, it is presumed that the market orientation approach must essentially exist in firms, but only the market orientation culture is simply not meaningful in terms of the performance of organizations. For organizations to properly obtain and interpret market information, they must also be learning-oriented. On the other hand, these two approaches are seen as a necessity to be innovative at a high level. Therefore, the basic hypothesis of the research is as follows:

H1: Learning orientation and innovation act as a mediator in market orientation's impact on firm performance.

Sub-hypotheses related to the H1 hypothesis:

H1a: Market orientation has an impact on learning orientation.

H1b: Learning orientation has an impact on innovativeness.

H1c: Innovativeness has an impact on performance.

H1d: Learning orientation acts as a mediator in market orientation's impact on innovativeness.

H1e: Innovativeness acts as a mediator in learning orientation's impact on performance.

In order to test the hypotheses, a survey designed and the Structural Equation Modeling (SEM) technique was used in the present study by Lisrel 8.3.

6. Method

6.1 Sample and Procedure

Survey was consisting of four scales and they were administered to the firms serving in the logistics sector in Turkey. All scales were administered by the researcher. In order to motivate the managers to get fully involved in filling the questionnaires, they were told that they would be informed about the results of the study.

Data for this study was collected from 102 dyads. The sample universe is composed of firms serving in the logistics sector in Turkey. In this context, the member list of the Association of International Transportation and Logistics Service Providers (UTIKAD) (352 members) was used. Firms subject to the research are usually native partnerships (47.1%), have an operating period range of 6-10 years (35.3%) and employ 1-50 people (32.4%). The study was carried out with the participation of enterprises owners, CEOs, deputy CEOs, region/branch managers, marketing directors and other executives.

6.2 Measurement

In order to measure the variables, four questionnaires were used; in each one, items are measured according to a 7-point Likert Scale (for market orientation, learning orientation and innovativeness 7=Strongly Agree...1=Strongly Disagree and for performance 7=Very

High...1=Very Low) to rank each of the items, with a higher score indicating a greater orientation or performance.

Market Orientation: There are direct and indirect measurement methods to measure the level of market orientation. Direct measurement refers to the measurement of how much managers comply with the philosophies of the firm and the classification of the organization's tendencies. However, due to various restrictions, research studies had to develop indirect measurement instruments. These instruments may be classified as cultural (Narver and Slater, 1990), information-based (Kohli and Jaworski, 1993) and alternative (Ruekert, 1992; Deng and Dart, 1994) scales (Harris, 2002).

Various scales designed for market orientation are as follows: MKTOR developed by Narver and Slater (1990); Ruekert's (1992) market orientation scale; MARKOR developed by Kohli and et al. (1993); the scale which Deshpande et al. (1993) developed via the Quadrant analysis, and in which they approached market orientation as customer orientation; Deng and Dart's (1994) scale of multi-factor and multi-variable approach; MORTN, developed by Deshpande and Farley (1998); the limited question scales developed by Gray et al. (1998) by taking existing scales as a basis; MOS developed by Lado et al. (1998) and MOS-R, a version of MOS which was later developed; and MOPRO, which is based on MKTOR, developed by Narver et al. (2005) by conducting rearrangements over variables and items in MKTOR.

As a result of these findings unearthed by the researchers, as also mentioned by Farrel and Oczkowski (2002), the first market orientation scale MKTOR whose validity is already approved (Lado et al., 1998), developed by Narver and Slater (1990), was preferred due to its psychometric features and advantages.

While the Cronbach alpha (α) value related to the market orientation was .82, the reliability at sub-dimensions was .67 for customer orientation, .80 for competitor orientation and .78 for interfunctional coordination.

Learning Orientation: In the literature, three basic organizational values (commitment to learning, shared vision, open-mindedness) aimed at organizations' tendency towards learning are discussed (Day, 1991; 1994b). These three values were measured by means of a scale including eleven items in total by Sinkula and his colleagues (1997). The scale was later developed by Baker and Sinkula (1999a; 1999b) through addition, and then applied by other researchers as well with identical or similar items included in order to measure organizations' tendency towards learning.

Among three variables mentioned in the literature in relation with learning orientation, the commitment to learning was developed and measured through 4 items by Sinkula et al. (1997) which depends on Galler and van der Heijden (1992), Garratt (1987) and Tobin (1993) scales and then again developed and measured through 6 items by Baker and Sinkula (1999a,b).

The scale related to the shared vision was developed and measured through 4 items by Sinkula et al. (1997) which depends on Senge (1990; 1992) and Tobin (1993) scales and then again developed and measured through 6 items by Baker and Sinkula (1999a; 1999b).

The open-mindedness scale was developed and measured through three items by

Sinkula et al. (1997) which depends on Day (1991; 1992), Senge (1990; 1992) and Slater and Narver (1994) scales and then again developed and measured through six items by Baker and Sinkula (1999a; 1999b). In addition to these three basic variables, the sub-variable known as organizational information sharing was measured through five items which were dealt together with other elements of the learning orientation by Calantone et al. (2002) and developed by Hult and Ferrel (1997). There are five reverse expressions on the learning orientation scale. These expressions were indicated with an “®” mark and included in the measurement by being reverse coded in analyses. While the α value of the learning orientation scale was .92, and the reliability at sub-dimensions was as high as .86 for the commitment to learning, .89 for shared vision, .80 for open-mindedness and .82 for intra organizational knowledge sharing.

Innovativeness: Different types of scales were designed for concepts which are sometimes meshed and otherwise used as replacements for each other, such as innovation, innovation capacity, innovation performance, innovativeness, innovation orientation, etc. However, for the sake of the purpose of the study’s and in terms of the compliance with the study’s variables, items adapted by Calantone et al. (2002) from Hurt et al. (1977), Hurt and Teigen (1977) and Hollenstein (1996) and also used by Keskin (2006) in Turkey were preferred. There is no sub-dimension on the innovativeness scale and reliability was found to be at .82 level.

Performance: In research studies based on the approach of this study, although objective performance criteria (investments made, investments’ return rate, turnover, sales volume, market share, etc.) are usually used, perceived performance criteria of a subjective nature are also frequently used. For this purpose, the subjective measurement technique was preferred by researchers in order to increase the reply rate, and also because it was an approach which researchers frequently apply to. As the scale, criteria that are important and generally accepted in performance measurement as in the literature were used. There is no sub-dimension in this variable, which is known as the dependent variable with a reliability of .90 level.

Since various researchers have used measurement instruments related to the variables for many years, as set forth in the literature, in different countries, sectors and samplings, there is no problem in regard to its structure, validity and reliability. When correlation between variables is considered, all variables are meaningful at the $p < .01$ level, as shown in Table 5.

Table 5: Structural Correlations

	Market Orientation	Learning Orientation	Innovativeness	Performance	Mean	Standard Deviation
Market Orientation	1.000	.680(**)	.451(**)	.508(**)	5.9986	.42727
Learning Orientation		1.000	.607(**)	.422(**)	6.0145	.50476
Innovativeness			1.000	.529(**)	5.7794	.68945
Performance				1.000	5.4199	.95807

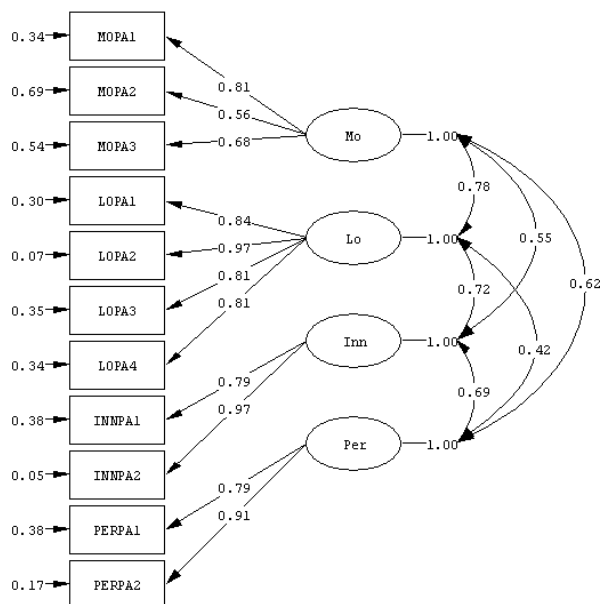
Note: ** $p < .01$

6.3 Analysis and Results

The structural equation modeling (SEM), which is a technique aimed at examining the relationship between implicit variables mentioned in the theory, by removing manipulation in relations between variables, eliminates measurement errors and presents researchers with truer and more refined results when compared to other techniques. This technique becomes effective, especially in the simultaneous explanation of a series of related variables in managerial and behavioral matters (Cheng, 2001). The most fundamental feature of SEM studies is that they are fully based on theory and able to test specific hypotheses. Structural equation modeling (SEM) was performed using the maximum likelihood method to test the hypotheses. This procedure permitted an assessment of the integrity of the measures, as well as an evaluation of the degree to which the observed relations among variables fitted the hypothesized network of causal relationships, as shown in Figure 1.

One of the techniques which used in SEM studies is parceling. Bandalos and Finney (2001) mentioned that among the most frequently confronted situations concerning the reasons for use of the item parceling comes the number of variables on the scale and insufficiency of the number of universal units (Holt, 2004). Kline (1998) expresses that, if sample is <100, a small-scaled volume is referred to and a limited number of analyses are permitted; if sample is 100-200, a mid scaled volume is referred to, if sample is >200, a large-scaled volume is referred to and thus, more meaningful results can be achieved as the number of samples increases. Again, it is mentioned in research studies related to this scale that if the ratio of sample volume to the number of items is 5:1, statistically suspicious

Figure 1: Measurement Model Standardized Solution



Note: Chi-Square = 71.12, df = 37, p-value = 0.00063, RMSEA = 0.086

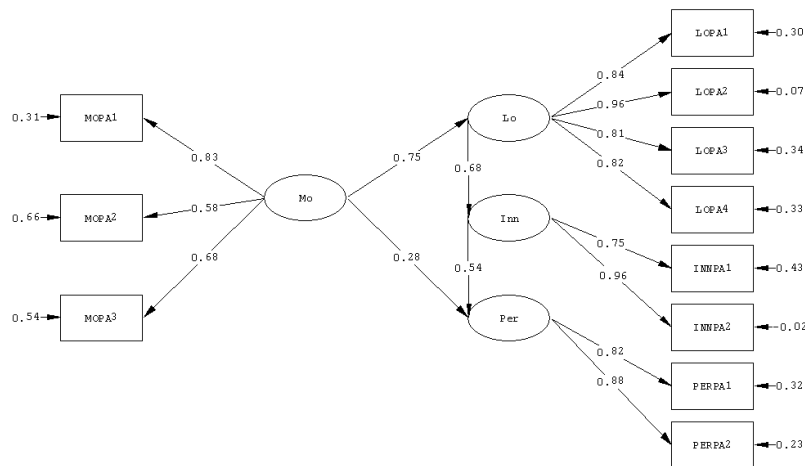
results will be obtained; if 10:1, realistic results and if 20:1, expected and reliable results will be achieved (Kline, 1998, p. 112).

The number of items (observed variables) on the study's scales are Market Orientation (MO)=14, Learning Orientation (LO)=23, Innovation (INN)=6, Performance (PER)=6 and N=102. In this case, when the 1:10 ratio is requested to be used in order to obtain realistic results, it will be seen that this criterion cannot be met in testing of the learning orientation scale. This situation leads to some deviations in factor analysis. On the other hand, although the factor structure of the observed variables which are again related to implicit variables is clearly mentioned in the theory and this scale structure has been used for many years, a deviation is observed in the factor distribution of some variables due to problems originating from respondents' perception or casualty of the variables. The fact that observed variables does not demonstrate an orthogonal structure may be one of the reasons to be considered. The parceling technique was used in the structural equation modeling in the study due to listed reasons.

One of the parceling techniques is the parceling based on the factor analysis structure, mentioned by Aluja and Blanch (2004) among different parceling techniques. Therefore, parcel determination as many as the number of factor groups included in each of the latent variables is a way. The market orientation scale was sorted into three, learning orientation scale into four, innovation scale into two and performance scale into two by taking into account such criteria as the following: determination of at least two parcels for each latent variable and the necessity that determined parcels have to express a one dimensional variable.

In the measuring model, the relationships between each of the latent variables and the degree to which parcels related to the latent variable explain such a variable are presented. A standardized analysis in respect to the measuring model is shown in Figure 2. When the measuring model is examined, it is seen that there is no discrepancy regarding error variances.

Figure 2: Structural Model Standardized Solution



Note: Chi-Square = 85.46, df = 39, p-value = 0.00003, RMSEA = 0.109

As can be understood from Figure 1, and as shown in Table 6, there is a relationship between all latent variables. These relations are meaningful at the $p < .01$ level.

Table 6: Correlations between the Latent Variables in Standardized Solution

	Market Orientation	Learning Orientation	Innovativeness	Performance
Market Orientation	1.000	.78(**)	.55(**)	.62(**)
Learning Orientation		1.000	.72(**)	.42(**)
Innovativeness			1.000	.69(**)
Performance				1.000

Note: ** $p < .01$

Having established that there is a meaningful relationship between latent variables; the direction of such relationships is tested and identified in the structural model. In the measurement model, t values with respect to whether the latent variable each parcel belongs to are statistically meaningful or not indicated. When standardized values and t Values shown in Table 7 are analyzed, all values are found to yield meaningful results.

Table 7: Measurement Model Values

Latent Variables	Parcells	Standardized Values	t Values
Market Orientation	MOPA1	0.81	8.78
	MOPA2	0.56	5.55
	MOPA3	0.68	7.07
Learning Orientation	LOPA1	0.84	10.30
	LOPA2	0.97	13.10
	LOPA3	0.81	9.76
	LOPA4	0.81	9.84
Innovativeness	INNPA1	0.79	9.14
	INNPA2	0.97	12.49
Performance	PERPA1	0.79	8.86
	PERPA2	0.91	10.69

The acceptability of the standardized values and t values shown in Table 7 indicates that the model is reasonable; however, the Goodness of Fit Indices (GFI) must be taken into account for an adequate assessment. The GFI in respect to the measurement model are shown in Table 8.

Table 8: Measurement Model Goodness of Fit Statistics

Goodness of Fit Statistics		Values	Estimated Values
Absolute Fit	RMR	0.46	≤.05
	SRMR	0.05	≤.05
	RMSEA	0.86	≤.80
	GFI	0.89	≥.90
	AGFI	0.89	≥.90
Comparative Fit	NFI	0.90	≥.90
	NNFI	0.92	≥.90
	CFI	0.94	≥.90
	IFI	0.94	≥.90
	ECVI	1.31 < 8.39	M < DM
Parsimonious Fit	PNFI	0.61	≥.05
	AIC	129.12 < 132.00	M < DM
	CAIC	234.24 < 371.25	M < DM

GFI in respect to the measurement model indicate whether data collected within the scope of the research fits the model built on theoretical foundations. When the indices are examined, it is found that the expected values for RMSEA, GFI and AGFI in precision of fit were not exactly achieved; however, all other fits were at the expected levels. Since X^2/df (71.12/37) is less than five and generally the goodness of fit values are at acceptable and reasonable levels, it is understood that the measurement model was verified within the framework of the structural equation modeling and that it is time to move on to the next step, the testing phase of the structural model.

After the conformity of the measurement model was tested, the relationships between variables in the suggested theoretical model were subject to analysis. The structural model was tested by means of nested models in line with the suggested model. Figure 2 shows standard analysis of the structural model. Four meaningful paths were identified in the structural model and the model was drawn up accordingly.

The strength and meaningfulness of relations between the variables in the structural model is shown in Table 9.

Table 9: Structural Models Values

Latent Variables and Parcels	Standardized Values	t Values
MO – PER Market Orientation → Performance	0.28	2.35
MO – LO Market Orientation → Learning Orientation	0.75	6.81
LO – INN Learning Orientation → Innovation	0.68	5.86
INN – PER Innovation → Performance	0.54	4.64

In the modeling based on the theory and in line with hypotheses, no meaningful relationship between market orientation and innovativeness was found (the path value was less than 10); therefore this path was removed from the model. The GFI for the structural model shown in Table 10 indicate conformity of data gathered within the scope of the research with the model, which is based on theoretical foundations.

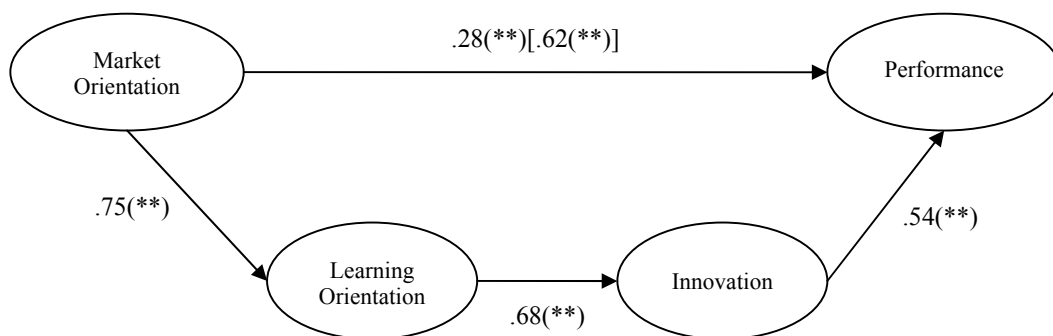
Table 10: Structural Model Goodness of Fit Statistics

Goodness of Fit Statistics		Values	Estimated Values
Absolute Fit	RMR	0.05	≤.05
	SRMR	0.06	≤.05
	RMSEA	0.11	≤.80
	GFI	0.87	≥.90
	AGFI	0.87	≥.90
Comparative Fit	NFI	0.89	≥.90
	NNFI	0.90	≥.90
	CFI	0.93	≥.90
	IFI	0.93	≥.90
	ECVI	1.31 < 8.39	M < DM
Parsimonious Fit	PNFI	0.63	≥.05
	AIC	132.00 < 847.04	M < DM
	CAIC	371.25 < 886.92	M < DM

When the indices are examined, it was found that the obtained values were convergent with the expected values. The fact that X^2/df (85.46/39) is less than five and the CFI, SRMR and RMSEA values in particular were at the expected levels with $N < 250$ and $m \geq 30$ shows that the GFI values are generally reasonable (Hair et al., 2006, p. 753). In this context, it can be concluded that the structural model was verified within the framework of the SME and that a model, which fits the tested hypothesis of the research, emerged. As far as it is understood from the structural model, and due to the fact that the GFI are at acceptable levels, the thesis of research, which is “learning orientation and innovativeness are variables in the relationship between market orientation and performance”, is confirmed. The verified model of the research is presented in Figure 3.

The results obtained support the hypotheses of the research. First of all, it is shown that the market orientation’s impact on performance is significantly provided through learning orientation and innovativeness (H1). The market orientation’s total impact on performance (which was originally .62) showed a dramatic fall (down to .28) as learning orientation and innovativeness are statistically controlled; in other words, as they are defined as mediator variables in the model. Thus, we see that the relationship between market orientation and performance is meaningful; however, such a relationship becomes meaningless as learning orientation and innovativeness variables are included in the model. It is seen that market

Figure 3: Conceptual Diagram of the Study



orientation – learning orientation and innovativeness have an impact on performance, while learning orientation and innovativeness also act as a partial mediator variable in the relationship between market orientation and performance.

It is clear that such a conclusion supports the main hypothesis of the research study, as well as its sub-hypotheses. As can be understood from the model, the fact that the impact of market orientation on performance is provided through learning orientation and innovation firstly states that market orientation has an impact on learning orientation (H1a), that learning orientation has an impact on innovativeness (H1b) and innovativeness has an impact on performance (H1c). Thus, it is clear that learning orientation mediates between market orientation and innovation (H1d) and that the learning orientation's impact on performance is provided through innovation (H1e), which, in turn, is a verification of the main hypothesis (H1) and all other sub-hypotheses.

As again can be understood from Figure 3, parameters in respect to market orientation-learning orientation, learning orientation-innovativeness, innovativeness-performance, market orientation-learning orientation-innovativeness and learning orientation-innovativeness-performance have an impact size at middle and high levels, which, in turn, refers to the fact that they are also statistically meaningful.

In respect to hypothesis H1a, in the relationship between market orientation and learning orientation, the t value is 6.81 and p is meaningful at the $p > .01$ level.

In respect to hypothesis H1b, in the relationship between learning orientation and innovativeness, the t value is 65.86 and p is meaningful at the $p > .01$ level.

In respect to hypothesis H1c, in the relation between innovativeness and performance, the t value is 4.64 and p is meaningful at the $p > .01$ level.

In respect to hypothesis H1d, while the t value regarding the relationship between market orientation and learning orientation is 6.81, as set out in hypothesis H1a, the t value regarding the relationship between learning orientation and innovativeness is 5.86 as mentioned in hypothesis H1b. Here, the learning orientation acts as a full mediator variable between market orientation and innovativeness, which can be explained as follows: in the measurement model, the relation between market orientation and innovativeness is

clearly seen (.55), but in the structural model, as learning orientation is included in this relationship, the degree of the relationship between variables drops (0.02) and becomes fully meaningless.

In respect to hypothesis H1e, while the t value regarding the relationship between learning orientation and innovativeness is 5.86, as mentioned in hypothesis H1b, the t value regarding the innovativeness-performance path is 4.64 as mentioned in hypothesis H1c. At this point, we reach the conclusion that innovativeness acts as a partial mediator variable between learning orientation and performance, which can be explained as follows: the relationship between learning orientation and performance, which is .42 in the measurement model, falls away to become meaningless in the structural model.

In conclusion, concepts such as market orientation, learning orientation and innovativeness, which are discussed to increase corporations' performance and to provide a competitive advantage, were analyzed in the sampling composed of logistics service providers in Turkey. The results obtained bear similar qualifications with the results of the researches, which have been conducted in different countries, sectors and, types of organizations since the 1990s.

7. Conclusions and Discussion

It is concluded that values such as market orientation – learning orientation and innovation are important in terms of increasing the performance of service providers operating in the logistics sector in Turkey, and that the such three variables have a compound impact on increasing performances of logistics service providers.

When the nature of the sector is considered, it can be stipulated that if supply chain elements, with which logistics service providers have some relation, exhibit similar features, this situation is expected to create a synergic impact on performance. Logistics enterprises' ability to guide their customers will be facilitating in this aspect.

In this research study, analysis was conducted at the unit (enterprise) level. Classified analyses specific to logistics service providers can be carried out in following studies. Again, through qualitative research design, deeper findings can be achieved through a case study in logistics enterprises showing high performance.

This study can be conducted as a comparison of replies of the two sides, service users and service providers. Thus, it would be possible to reach more comprehensive deductions in respect to the sector.

In future research studies, such studies for obtaining comparative results through the use of MKTOR and MARKOR scales may be considered together in the same research and deriving a new scale which is valid, reliable and adapted to the Turkish culture via studies to be made on scales.

This study aims to be pioneering to the extent that a model which is not frequently seen in the literature scanning conducted in Turkey is tested within a sector in which it is never questioned and by means of a unique method. Later research studies are expected to lead to further expansions specific to the Turkish Logistics Sector, while guiding the development

of suggestions that are aimed at increasing performance in terms of practitioners within the framework of cultural and sector-specific conditions.

8. Implications for Management

Various research studies performed by different researchers in respect to the impacts of market orientation – learning orientation and innovativeness on operational performance indicate that there is a strong relationship between these concepts. As is known, there are various tendencies, which increase operational performance. In theories set forth as well as in empirical research studies conducted, various relationships have been established between market orientation and performance, learning orientation and performance, market orientation-learning orientation and performance, in particular. As studies are advanced in the theory, such hypotheses underlining that innovativeness, like learning orientation, has an impact on the relationship between market orientation and performance are set forth and then confirmed in such studies.

Logistics has been a rising sector, particularly in the last decade within the new economic structure in which services have gained importance. As a field of services based on technology and information, it is a sector, which requires a focus on customers. Market orientation is a necessary approach in terms of meeting customers' needs, satisfying them and defining those needs which customers are not yet aware of. In the logistics sector, where diversified services are expected to be presented to different customers, the collection of correct information on customers, presentation of more advantageous solutions by analyzing the competitors and establishment of a joint strategy by sharing gathered information across the organization must be deemed as practices of market oriented enterprises.

Market orientation refers to the recognition and identification of customers within the supply chain, while providing them with a cost advantage. In respect to market orientation, organizations have to bear the learning ability in order to gather market information, and use and share it. The learning ability that must be possessed, also as an important element of the supply chain, must be attached further importance to by logistics service providers. For an effective supply chain operation and performance, a maximum level of information sharing among the links is required. From this point of view, logistics service providers act as an important center where information is produced, stored and distributed within the chain. Therefore, the existence of a learning-oriented approach is compulsory within the organizational culture of logistics service providers.

Since market orientation sometimes causes a tendency towards merely satisfying the existing requirements of customers, it may lead to myopia, and in this aspect, may reduce innovativeness. Therefore, it must be stressed particularly that in the market oriented approach, organizations should not just tend towards customers' requirements and expectations.

The fact that the logistics sector is based on information and communication provides sector practices to be innovative and efforts shown to create continuous cost advantage within the supply chain become a forcing power for enterprises to produce more

innovative solutions. Innovation, for the logistics sector, can aim at both its own processes and processes of the customers. When considered from this point of view, innovative practices of logistics service providers will contribute to their own success, as well as their customers' success through the advantageous methods they offer their customers. A basic task of logistics service providers is to reflect technological developments and innovative practices to their customers as well as other elements within the supply chain.

9. Directions for Future Research

Theoretical discussions and empirical research studies have put forward, both in management and marketing literatures, the relationships between market orientation and performance, learning orientation and performance, innovativeness and performance and between these three concepts and various components of performance. In research studies conducted according to the sales, types and sectors of different enterprises, three-way relationships were found. While generally positive relationships (Narver and Slater, 1990; Ruekert, 1992) are found, some others presented opposite results (Hart and Diamantopoulos, 1993). Some of the research studies, on the other hand, revealed that there is a compound relationship (Kohli and Jaworski, 1993). After the year 2009 research stream is changed and researches started to examine market orientation, learning orientation and innovativeness with some other variables (*e.g. organizational competencies Subramanian et al. (2009), corporate social responsibility Qu (2009), innovation speed Carbonell and Escudero (2010), job satisfaction and commitment Rodrigues and Pinho (2010), autonomy barnabas and Mekoth (2010), JIT, TQM and Agility Zelbest et al. (2010), e-marketing Tsiotsou and Vlachopoulou (2011), six sigma Eng (2011)*).

In future research studies, it is necessary to conduct new research studies and ensure validity of the model through use of different scales and comparisons between sectors.

10. Strengths and Limitations

The basic limitation of the research is the fact that, in the relations between market orientation, learning orientation and innovativeness variables, it is not yet fully clear which one is the primary variable, as well as the fact that different results are obtained in different studies when these variables are evaluated within the same model. The assumption adopted in this study is that market orientation is a pioneer for the other two variables.

Another limitation is that logistics is a new sector in the world but particularly in Turkey. Therefore, academic studies in respect to the sector are just recent. Within the framework of conducted scans, no study was discovered in respect to the variables establishing the study's model and linked to general operational performance, which are market orientation, learning orientation and innovativeness.

The fact that the database related to the Turkish logistics sector is not yet established causes all data regarding the classification of enterprises in the sector to the sectors they provide to be disordered and inadequate. Although there are some associations in the

logistics sector, which people and corporations playing key role in the sector are members of databases prepared by these associations are far from giving clear and healthy information about the sector. Selection of the universe and sampling of logistics service providers to be included in the scope during the design of the research has been an important limitation for it.

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