

# **THE EFFECT OF MARKET ORIENTATION AND INNOVATION ABILITY ON ENTERPRISE PERFORMANCE: A PRACTICE OF STRUCTURAL EQUATION MODELLING ANALYSIS: A RESEARCH ON SMES**

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## **Abstract**

Enterprises can be successful in global competition by creating the useful information, which provides competitive superiority, and spreading this information to the whole enterprise, implementing it in a short time, developing new products, processes, markets and organizations. It is expected to make an effect which increases the performance of the enterprise by successfully implementing this information in the innovation process. For this, enterprises should listen their customers and make their products according to their demands and offer them to the market. Strategic orientations of the enterprises have an important effect on their performances. In order to meet the expectations of customers, the ideas to improve new product is dependent on developing a systematic novelty culture which is technology and innovation-oriented. Customer and market-oriented practices have important effects on enterprises' intellectual elements and profitability.

In this work, the effect of market orientation and innovativeness ability on the performance of the enterprise is studied. Market orientation is studied under three sub-dimensions: Competitor-oriented, customer-oriented and coordination among the functions. Market orientation, innovativeness ability and performance of the enterprise is analyzed with constitutional equality modelling. As a result, secret variables like competitor-oriented and coordination among the functions haven't a meaningful effect on enterprise performance, however innovativeness ability and competitor orientation

variables have a positive meaningful effect on enterprise performance. Innovativeness ability has more direct effect on enterprise performance than market orientation dimensions.

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**Keywords:** Market orientation, Innovativeness ability, Enterprise performance, Structural equation modeling.

## **Introduction**

For an enterprise, to be successful in an environment where market elements change constantly, new technologies improves frequently, products become outmoded quickly, competitors increase continuously, depends on creating the useful knowledge which will provide competitive superiority. It has an important effect on the enterprise success to spread this knowledge to the whole enterprise, to improve new products, processes, markets and organizations by implementing it in a short time. This knowledge is expected to make an effect to increase the performance of the enterprise in the innovation processes. In this process, enterprises should listen to their customers and make products according to their needs and demands and put them on the market.

Customers should be served with superior values in order to increase long term enterprise performance and profitability. Short term marketing, commercial and selling attempts may increase sales in a short time but it is more important to make the customers choose the enterprise again in long term. To provide long term superior values to the customers is related to innovative structure of the enterprise. Innovation process includes acquiring new knowledge, spreading this knowledge to relevant departments and usage of it. To acquire this knowledge is only possible by determining the customers' needs and demands with a market-oriented approach. Consequently, innovative orientation and market orientation have an direct effect on the enterprise performance.

One of the significant approaches which underlies the market orientation has been improved by Slater and Narver. According to this, market orientation was analyzed in cultural aspects and the term defined as high performance, developing and protecting a enterprise culture which creates high values via efficient and effective behaviors within the enterprise (Webb et al, 2000; Naktiyok, 2003: 97).

Slater and Narver (1990) studied the marker orientation with three behavioral and two decision criteria component. While behavioral components are customer-oriented, competitor-oriented and coordination among the functions, decision criteria components are defined as long term goals and profitability. Researchers studied market orientation as an enterprise culture by meeting 113 strategic department directors of an

enterprise. Slater and Narver studied market-oriented enterprises as not only customer-oriented but also competitor-oriented. Besides, they emphasized the inner coordination among departments (functions) as it is an organizational culture (Gudlaugsson and Schalk, 2009: 5).

In Figure 1, the market-oriented approach in the cultural aspect is shown which was mentioned. In cultural aspect, market-oriented components are customer-oriented, competitor-oriented and coordination among the departments.

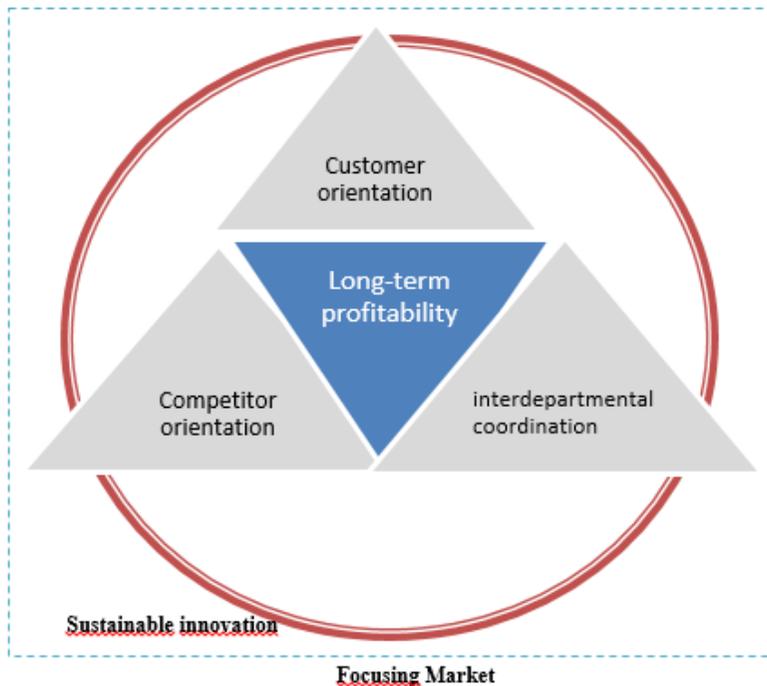


Figure 1: Market Orientation Perspective of Slater and Narver

Resource: Slater and Narver (1990); was adapted from Gudlaugsson and Schalk, 2009: 4.

According to Slater and Narver, constant innovation is an implicit connective of the components in Figure 1. Accordingly, if there is no innovation and constant knowledge collection, there will be no extra service to the customers. Customers should be served superior values in order to increase long term enterprise performance and profitability. Short term marketing, commercial and sale attempts may increase sales but it is more important to make the customers choose the enterprise again and have the reputation spread from ear to ear (Gudlaugsson and Schalk, 2006: 6).

In this study, the effect of competitor-oriented, customer-oriented, coordination among the functions and innovativeness ability based on market

orientation model, which was suggested by Slater and Nayer, on the enterprise performance was analyzed.

## **Literature and Hypothesis Development Process**

### **Market Orientation and Enterprise Performance**

In literature, there are many definitions about market orientation. Although every definition approach to market orientation from a different perspective, three perspectives have been accepted more than the others. These are behavioral (Kohli&Jaworski, 1990), cultural (Slater&Narver, 1990), and integrative (Homburg&Pfleffer, 2000) perspectives. Most of the researchers agree on collecting the market data, spreading this data and consequently implementing it in the enterprises which will respond to market. As Van Raaji and Stoelhorst summarized (2008), market-oriented enterprises have the information on the market and they have the advantage to use it to create superior values for their customers (Zebal and Goodwin, 2011: 1).

Market orientation is important in terms of responding rapidly and correctly to the customers' changing demands and needs. This causes the enterprise to be ahead in the competition. There are many studies which relate the market orientation dimensions and performance of the enterprise (Narver and Slater, 1990; Ruckert, 1992; Desphande et al 1993; Jaworski and Kohli, 1993; Greenley, 1995; Pelhan and Wilson, 1996; Pelham, 1997; Appiah-Adu, 1997; Van Egeren and O'Connor, 1998; Kumar, Subramanian and Yauger, 1998; Matsuno and Mentzer, 2000; Han, Namwoon and Srivastava, 1998; Danişman and Erkocaoğlan, 2008: 201). Some of these studies show that market orientation has increased the enterprise performance (Chang ve Chen, 1998; Narver ve Slater, 1990; Slater ve Narver, 1994; 2000; Haugland, Myrtveit ve Nygaard, 2007: 1192). In addition to this, some researchers have stated that there is no direct relation between market orientation and enterprise performance (Han et aş, 1998; Siguaw et al, 1998; Haugland, Myrtveit and Nygaard, 2007: 1192).

H1: Market orientation has a positive and important effect on enterprise performance.

H1a: Competitive orientation has a positive and important effect on enterprise performance.

H1b: Customer orientation has a positive and important effect on enterprise performance.

H1c: Coordination among the functions within the enterprise has a positive and important effect on enterprise performance.

## **Innovativeness Ability and Enterprise Performance**

Innovation concept is described as creating new idea, process, products and services, being accepted and implemented. Innovation process also includes acquiring the new knowledge, spreading this knowledge to relevant units and usage of it (Calantone, Çavuşgil and Zhao, 2002: 515) and at the same time, implementing the creative ideas successfully (Amabile et al, 1996; Erdil, O. Erdil and Keskin, 2003: 4).

Innovation capacity concept, which was first used in 1961 by Burns and Stalker, is described as the ability of the organizations to implement the new ideas, products and processes and carrying out the adaptation. Enterprise should gather characteristics and resources which create innovation in order to evaluate innovation concept as an enterprise culture (Hurley and Hult, 1998: 44).

Innovation is accepted as a key for corporation success process. In marketing, innovation concept is acquired if only it is market-oriented (Frambach and Schillewaer, 2002: 163). Slater and Narver (1994); Han, Kim and Srivastava (1998) are the writers who suggested the relation of innovation concept with market orientation for the first time. These writers emphasizes that innovation capacity has an critical role in enterprise performance and market orientation because thanks to market orientation, enterprise may adapt the market conditions more healthily and it makes the enterprise to have sustainable superior performance (Huhtala et al, 2011: 2).  
H2: Market orientation has an positive and important effect on enterprise performance.

## **Market Orientation and Innovativeness Ability**

Innovation processes should be realized in a way that competitive advantage with market orientation. These two facts are analyzed as a motive force in sustainable competitive advantage in the previous studies on market orientation and innovation. Kohli and Jaworski (1990) define organizational responsiveness to customers' changing demands and needs, which shape with market conditions, as a comprehensive action plan. With the innovative perspective writers, likewise, emphasize that market orientation contains all the things which is done in order to offer new and different options to the changing market conditions. In other words, writers define market orientation as a premise to innovation (Hurley and Hult, 1998: 43). It has critical effects to improve new knowledge (gathering and using them) on market orientation and enterprise performance. Innovativeness orientation again affects market orientation positively by helping the enterprises in terms of responding to customers' changing needs and demands quickly.

H3: Market orientation has a positive and important effect on innovativeness ability.

### Subject, Model of the Research and Hypothesis

In this study, the effects of market orientation and innovation ability on enterprise performance in the enterprises which are SME kind and operates in Istanbul. Main objective of this study is to determine the effects of market orientation and innovation ability on the enterprise performance.

In the light of these concepts and explanations, research model and hypothesis are below:

Basic hypothesis:

H1: Market orientation dimensions (competitor-oriented, customer-oriented and coordination among the functions) have a positive effect on enterprise performance.

H2: Innovation ability has a positive effect on enterprise performance.

H3: Market orientation has a positive effect on innovation ability.

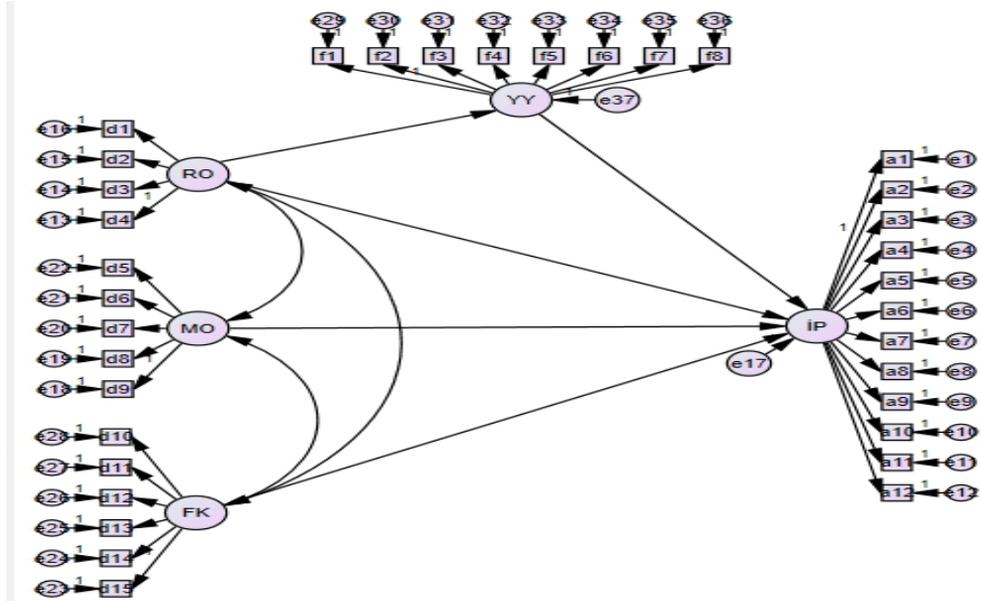


Figure 2: Research Model

### Methodology

In the scope of research, enterprises which are SME kind and operate in Konya OSB was chosen. Face to face survey is used as data collecting technique. 10 different enterprises (300 participants) have been reached in total, in the scope of the research.

The survey subject to the research consists of 4 main dimensions;

1.Section: Consists of 5 nominal scaled questions in order to determine demographic features.

2.Section: Consists of 17 Likert scaled questions about market orientation (competitor- oriented, customer-oriented and coordination among the functions).

3.Section: Consists of 8 Likert scaled questions about innovation ability (Daniel I. Prajogo and Amrik S. Sohal, 2003; 1: Very low; 5 Very high).

4.Sections: Consists of 12 Likert scaled questions about financial and growing performance of the enterprise (Zahra et al 2002; 1: Very low; 5: Very high).

In the scope of this research, constitutional equality modelling analysis was followed up. Constitutional equality model is a statistic technique which is used to test the models in which casual and correlation relations are together between observed variables and latent variables. It is a multivariate technique which forms by combining analysis like variant, covariant, factor and multi regression in order to guess the dependence relations among the variables. The main feature of the technique is it completely depends on theory and it accepts that there is a causality constitution between the set of latent variables. The most critical point in implementing the constitutional equality modelling is the created model has a quite tough substructure (Dursun and Kocagöz, 2010).

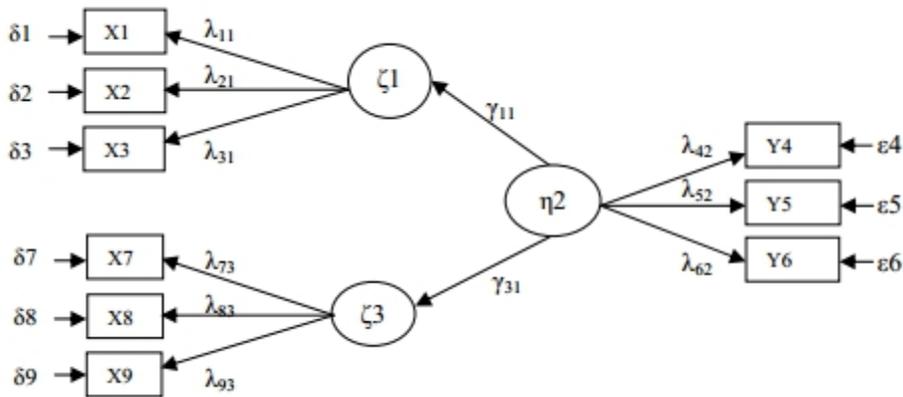


Figure 3: Scale model and Symbols

Meanings of the symbols on this scale model are on the table below.

Table 1: Symbols and Meanings

Symbol	Meaning
Y	observed variables (expression)
ε	errors in the observed variables
η	Implicit variable η (internal)
ζ	Implicit variable ζ (external)
γ	the path coefficient between extrinsic and intrinsic variables (dependent and independent variables)

### Analysis and Findings

Data was analyzed by SPSS and SPSS AMOS program. As analysis techniques, constitutional equality modelling analysis was used in multiple choice questions in order to identify the relation among frequency analysis, market orientation dimension, innovation ability and enterprise performance dimension.

### Demographic Variables

The number of the employees in the enterprises which participants operate are here: 5 enterprises have 11-50 employees; 4 enterprises have 51-66 and 250 employees; 1 enterprises have 251-500 employees.

Overall, companies has been established since 2000.

When we look into the enterprises of which supervisors participated in the research, we see that they mostly operate in machine/metal goods, automotive spare parts and petrochemistry/plastic sector.

### Results of Structural Equation Model

Modification indexes was analyzed since the models of which constitutional equality analysis doesn't contain acceptable values. According to the modification index results, model was analyzed again by adding covariance. Tested model and results are shown in Figure 4.

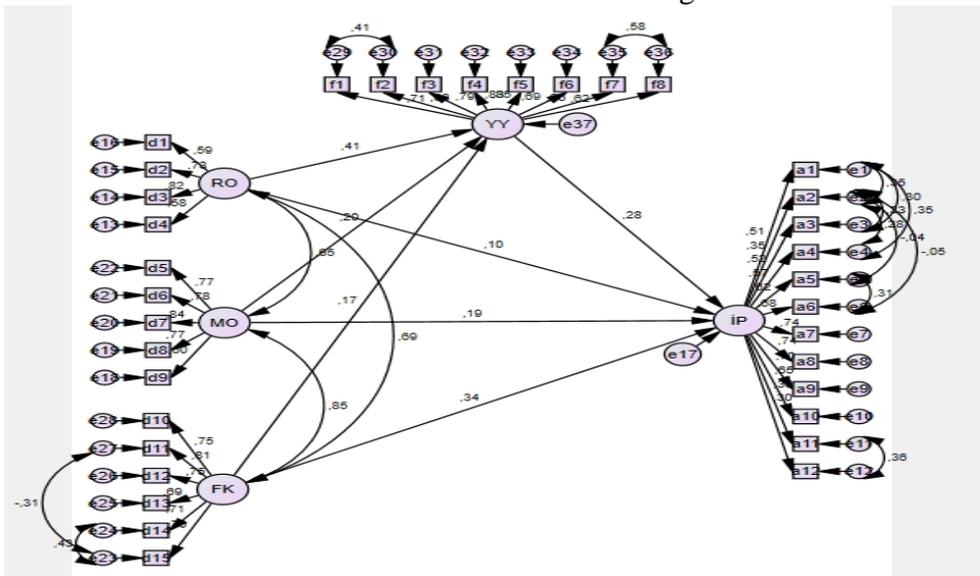


Figure 4: Results of Constitutional Equality Model

In the light of the literature, modification adjustments were made based on the recommendation of the results of the research model. In the estimated results of the model, all parameters have been found statistically meaningful (Figure 4).

Factor loads change between 0,59-0,82 for competitor-oriented latent variable; between 0,60-0,84 for customer-oriented latent variable; between 0,69-0,81 for coordination variable among the functions; between 0,62-0,88 for innovation ability latent variable and between 0,35-0,74 for enterprise performance latent variable.

For the enterprise performance, %46 of total explained variance was calculated with direct effect innovation ability and market orientation dimensions.

When the standardized regression coefficients ( $\beta$ : Beta) are analyzed, innovation ability has more effect on enterprise performance than market orientation dimensions;

- **Competitor orientation has a positive effect on Innovation ability ( $\beta= 0,535$ ;  $p<0,05$ ).**
- Customer orientation hasn't a positive effect on Innovation ability ( $\beta=0,268$ ;  $p>0,05$ ).
- Coordination among the functions hasn't a positive effect on Innovation ability ( $\beta=0,166$ ;  $p>0,05$ ).
- **Competitor orientation has a positive effect on enterprise performance ( $\beta=0,071$ ;  $p>0,05$ ).**
- Customer orientation hasn't a positive effect on enterprise performance ( $\beta=0,188$ ;  $p>0,05$ ).
- Coordination among the functions has a positive effect on enterprise performance ( $\beta=0,238$ ;  $p<0,05$ ).
- **Innovation ability has a positive effect on enterprise performance ( $\beta= 0,179$ ;  $p<0,05$ ).**

Table 2: Regression Coefficients

			Estimate	S.E.	C.R.	P
Innovation ability	<---	Competitor orientation	0,535	0,120	4,475	***
Innovation ability	<---	Customer orientation	0,268	0,163	1,642	0,101
Innovation ability	<---	Coordination among the functions	0,166	0,128	1,295	0,195
Enterprise performance	<---	Competitor orientation	0,071	0,076	,930	0,352
Enterprise performance	<---	Customer orientation	0,188	0,108	1,734	0,083
Enterprise performance	<---	Coordination among the functions	0,238	0,089	2,690	0,007
Enterprise performance	<---	Innovation ability	0,179	0,054	3,295	***

Table 3: Standardized Regression Coefficients

			Estimate
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			Estimate
Innovation ability	<---	Competitor orientation	,413
Innovation ability	<---	Competitor orientation	,204
Innovation ability	<---	Coordination among the functions	,169
Enterprise performance	<---	Competitor orientation	,079
Enterprise performance	<---	Competitor orientation	,206
Enterprise performance	<---	Coordination among the functions	,351
Enterprise performance	<---	Innovation ability	,259

When the model fit indexes are analyzed, Chi-Square value is 1160,793. Besides, the other fit index results are shown on Table 5.

Table 4: Model Results

Fit indexes	Acceptable values	Model results	
RMSEA	0,00<RMSEA<0,10	0,062	√
GFI	0,85<GFI<1,00	0,852	√
AGFI	0,80<AGFI<1,00	0,831	√
NFI	0,90≤NFI≤0,95	0,824	X
CFI	0,90≤CFI≤0,97	0,906	√
CMIN/DF	<4	2,158	√

Normally GFI and AGFI values are expected higher than 0.90 for the good model fit, while the RMSEA is expected to be smaller than 0.05. In contrast, an acceptable level of model fit is indicated by a GFI value of 0,85; by a AGFI value of 0,80 and by a RMSA value of 0,10(Gülbahar and Büyüköztürk, 2008; Çağlıyan, 2009).

According to these results, data set is enough to show the effects of market orientation and innovation variables on enterprise performance.

## Conclusion and Discussion

In this study, enterprise performance variable was analyzed with innovation ability and market orientation (competitor-oriented, customer-oriented and coordination among the functions) for the enterprises. Main purpose of the study is to present the effect of innovation ability and market orientation on the enterprise performance.

Hypothesis which were made in this context have been tested and following results have been reached;

- Competitor orientation has a positive effect on Innovation ability ( $\beta=0,535$ ;  $p<0,05$ ; **accepted**).
- Customer orientation hasn't a positive effect on Innovation ability ( $\beta=0,268$ ;  $p>0,05$ ; **not accepted**).
- Coordination among the functions hasn't a positive effect on Innovation ability ( $\beta=0,166$ ;  $p>0,05$ ; **not accepted**).

- Competitor orientation hasn't a positive effect on enterprise performance ( $\beta=0,071$ ;  $p>0,05$ ; **not accepted**).
- Customer orientation hasn't a positive effect on enterprise performance ( $\beta=0,188$ ;  $p>0,05$ ; **not accepted**).
- Coordination among the functions has a positive effect on enterprise performance ( $\beta=0,238$ ;  $p<0,05$ ; **accepted**).
- Innovation ability has a positive effect on enterprise performance ( $\beta=0,179$ ;  $p<0,05$ ; **accepted**).

Hypothesis improved and tested on enterprise performance in this study have features to be implemented on larger enterprises. It may conclude more meaningfully and effectively to provide the coordination among the functions, to analyze larger enterprises which will meet the costs about innovation and market orientation. Additionally, it may provide more effective advantages for larger scaled enterprises to develop market-oriented innovations in practice.

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