

The Investigation of Business Performance in an Automotive Firm

*Dr.Bilgin Şenel and **Mine Şenel
Faculty of Engineering, Anadolu University, İkieylül Campus,
Eskişehir/Turkey,(222)3213550/6431
[*bsenel@anadolu.edu.tr](mailto:bsenel@anadolu.edu.tr), **mines@anadolu.edu.tr

Abstract

The purpose of this study is to reveal the effect of being strategic, implementing total quality management, and adopting an aggressive or innovative strategy on the performance of an automotive firm, one of the leading ones in the Turkish automotive industry, in its factories located in Gebze and Inonu. Only the white collar employees were included within the study. Structural equation modeling was established following a reliable analysis, factor analysis and confirmatory analysis on the data. The study concluded that being strategic (Competitor Orientation, Technology Orientation and Customer Orientation) and implementing innovative strategies have a positive influence on the performance of the firm, but implementing Total Quality Management and adopting an aggressive strategy does not have a positive impact on the performance.

Keywords: Performance, Strategic Orientation, Total Quality Management, Aggressive Strategy Innovative Strategy

Introduction

With increased means of communication, consumers and sellers are now able to get information about from product properties and prices to consumer experiences in an easy and quick way. In this way, customers and producers can buy and produce products by comparing their own products with those of competitors. In this way, especially the automotive industry, the locomotive of Turkish economy, has proven to be the triggering element of technological advances, for the industry has a market in such fundamental industrial areas as iron-steel, petrochemical and tire. Under the current market conditions marked by fierce competition and instability in macro-economic conditions, a firm that can recognize the change in demand earlier than its competitors get an edge over others. The competition in the automotive industry has forced firm managers to monitor current trends, changing conditions and firm performances in a constant manner. A firm gets an edge over its competitors when its management gets current information about the changes and new trends in both the products and services of its competitors and customer expectations and requirements, processes that information within the firm and caters to the market in a quick way (Kohli and Jaworski, 1990). Catering to market requirement in a quick way requires, first of all, an evaluation of firm performance. Firm performance means the extent to which organizational strategies achieve their goals in practice and output over a certain period, namely the level of achievement (Porter, 1991). As well as the level of achieving fundamental economic goals, firm performance is also an indicator of its ability to adapt itself to changing environmental conditions and its achievement in innovation for surviving in the competition (Hagedoorn and Cloudt, 2003).

The factors in firm performance are dealt with under two headings in the literature, namely financial factors and non-financial factors (Wen, 2010). There are a number of non-financial factors in firm performance. Strategy orientation is one of them and consists of three main components. These are competitor orientation, customer orientation and technology orientation (Gatignon and Xuereb, 1997). The first one, competitor orientation, is significantly intertwined with firm performance (Noble et al., 2002). It is defined as the ability to study, describe, analyze and react to the activities of competitors (Gatignon and Xuereb, 1997).

The second main component of strategy orientation, customer orientation, includes attending to customer demands and complaints, attaching importance to after-sale services, regularly searching for ways to create a superior product or service value and gradually measuring the level of customer satisfaction (Micheeles, 2010). The literature includes a number of studies on the correlation between firm performance and customer orientation (Harrison and Walker, 2001; Singh and Ranchhod, 2004; Marti'n-Consuegra and Esteban, 2007). Their results suggest that customer orientation has a positive effect on firm performance. Technology orientation, the final component, refers to the use of technological information for catering to and even foreseeing new expectations and requirements of customers (Gatignon and Xuereb, 1997). It requires firms to be open to new ideas and to tend to adopt new technologies during the process of developing new products (Hurley and Hult, 1998; Li, 2005: 428). Technology orientation affects general firm performance, as a result of its impact on technical performance and productivity (Jeong et al., 2006: 352).

Another factor in firm performance is innovative strategy. The purpose of this strategy is to develop and introduce a new product or a new process of production earlier than its competitors and thus to take over market leadership. Innovative strategy requires firms to be closely intertwined with worldwide information and technology system, to be based on a powerful process of research and development and to benefit from advances, techniques and developments in a quick manner. Although firms adopting an innovative have high expectations of income, high risks are involved (Taskin and Adali, 2003: 103).

Company Performance

Performance can be defined as the level of achievement over a certain period and reaching the level of skill required by superiors or the job itself in parallel with organizational goals. Firm performance means the extent to which organizational strategies achieve their goals in practice and output over a certain period, namely the level of achievement (Porter, 1991). Performance measurements through periodical evaluations provide important data on how successful our strategic preferences are. The process of making strategic decisions includes, for getting and sustaining a competitive edge over competitors, determining alternative ways, as well as instruments and resources, choosing the most suitable ones for organizational structure, implementing them and evaluating and revising their efficiency. The strategy implemented during the period preceding the performance evaluation is an important criterion for firm performance. Whereas strategies tell us about the activities to be carried out in the next period, performance evaluation is concerned with those carried out in the previous period. The latter makes it possible to measure the efficiency of strategies, to revise them and thus to ensure constant improvement.

As well as the level of achieving fundamental economic goals, firm performance is also an indicator of its ability to adapt itself to changing environmental conditions and its achievement in innovation for surviving in the competition (Hagedoorn and Cloudt, 2003).

The Factors in Performance

The factors in firm performance are dealt with under two headings in the literature, namely financial factors and non-financial factors (Wen, 2010). The present study investigates non-financial factors under three headings, namely Strategy Focus, Company Focus and Total Quality Management. In the model, firm performance is the dependent variable whereas Strategy Focus (Rival Focus, Technology Focus), Company Strategy (Aggressive Strategy, Innovative Strategy) and Total Quality Management are the independent variables.

1. Strategy Focus

Strategy means creating and controlling a change. It refers to having the kind of intuition, common sense and vision to foresee the necessity of a change and power to put these characteristics into practice. Strategy is the ability to recognize opportunities and threats not recognized by others. It means noticing individual and corporate strength and weakness in a clear way and to adopt a realistic approach. Strategy is to create friends and obtain support, to avoid from enemies or inhibiting factors and to benefit from each when necessary. Strategy orientation consists of three main components. These are competitor orientation, customer orientation and technology orientation (Gatignon and Xuereb, 1997). The contents of these components are explained below.

Competitor orientation

Competitor orientation is the ability to study, describe, analyze and react to the activities of competitors (Gatignon and Xuereb, 1997). It is the key to understanding weakness and strength, capacity and strategies of potential competitors. As for the time horizon, defining competitor orientation as getting and sustaining a competitive edge is critically important to understanding firm behaviors (Porter, 1985) In other words, it helps one to create opportunities by discovering weakness of competitors and to eliminate threats by studying their strength. It refers to taking market requirements into account and determining which characteristics should be considered.

Customer Orientation

Customer orientation is to properly understand customers in order to create superior values in a constant way. According to Narver and Slater (1990), customer orientation is to collect and use information about customer expectations and requirements, to develop a strategy that will satisfy their requirements and to implement that strategy. Customer orientation includes attending to customer demands and complaints, attaching importance to after-sale services, regularly searching for ways to create a superior product or service value and gradually measuring the level of customer satisfaction (Micheeles, 2010). A customer-oriented firm has the ability to define, analyze and understand customer requirements and to satisfy them (Gatignon and Xuereb 1997; Zhang and Doll 2001). This means adopting the approach “the customer is king”. It includes finding out both current and prospective customer requirements and creating value for them (Mavondo, 2000).

Technology Orientation

Competition and market conditions undergo constant and quick changes. Therefore, technology-oriented firms are forced to create new resources that will enable them to get an edge over their competitors. Technology plays a key role in the strategies of firms competing with each other under such conditions (Kelly and Rice, 2001). A technology-oriented firm can be defined as one that can create a powerful technological infrastructure and use it for developing new products. Technology orientation refers to the use of technological

information for catering to and even foreseeing new expectations and requirements of customers (Gatignon and Xuereb, 1997). It requires firms to catch up with technological advances and to turn them into advantages over their competitors.

2. Company Strategy

Strategy is the configuration of necessary resources, products, processes and systems in order for firms to adapt themselves to the obscurity within the environment they operate in. Firms need to determine what functions and jobs they will perform and in what kind of a market they will operate (Lawson and Samson 2001). Strategy can also be defined as behaviors created and exhibited by an organization in order to obtain constant maximum performance (Zhang and Doll 2001). Firm strategy is concerned with how the firm will compete with its competitors in order to survive and succeed in the industry.

Aggressive Strategy

Aggressive Strategy is generally concerned with the efforts of a firm to compete with its competitors in the industry (Lumpkin and Dess 2001) and means the way it reacts to the current competitive trends and demands in the market. Aggressiveness can be defined as adopting an agonistic attitude towards competitors and the tendency to employ fierce and severe competition (Lyon et al., 2000). With aggressive strategy, firms produce immediate, quick and efficient reactions to the activities of their competitors. In order to do so, they compare their situation to that of their competitors (Morgan and Strong). By acting earlier than their competitors, they allocate their resources quickly in order to improve their status in the market.

Innovative strategy

Innovative strategy requires a firm to search for the opportunities brought about by the changes and developments in its environment, to create new opportunities by foreseeing future demands, to develop new products-services-processes by utilizing such opportunities and to compete with its competitors through innovation (Morgan and Berthon 2008). Pro-activity is the ability to change the environment through new products and technologies. Naidoo (2010) defines pro-activity as “the search for new opportunities related or not related to current products, definition of new products and brands, and abolishment of the activities that are at the stage of maturity (olgunluk) and recession”. Pro-activity is the perspective whereby new opportunities are sought for and future is taken into account.

3. Management Approach

Total quality management

Total quality management is a customer-oriented philosophy of management, whose purpose is to assign responsibility to each individual in an organization and, accordingly, to develop new processes in a constant manner (Au and Choi, 1999). Management is concerned with human beings. Its duty is to make human beings achieve common performance, to reinforce their strength and to make their weakness unimportant. The chief purpose of a management is to make performance sufficient through training and development programs in order to enable them to have common goals, common values, a proper structure and decent performance and to react to changes. Total quality management not only prepares the kind of environment in which employees can improve their performance but also assigns the responsibility for doing so to the individuals themselves. The best kind of performance development is to make individuals desire to improve themselves. Those organizations that adopt total quality management need to take the following five principles into consideration

(Kaufman and Zahn, 1993): directing organizational attention to customer expectations and requirements, superior managers as role models to provide high-quality products in all kinds of activities, providing members of the organization with the opportunity for training, development and innovation in order for them to provide the best service possible, systematic innovation processes for each member towards development and advancement, and a human-centered approach to management. Flynn et al. (1994) defines total quality management as “an integrated approach for achieving and sustaining high-quality outputs. Total quality management is focused on constant improvements on the processes and preventing errors at all stages of all organizational functions in order to satisfy customer requirements and to go beyond such expectations (Martínez-Costa et al., 2008).

Research Methodology

The data collection instrument for the study was the survey method. The questions for the survey were based on the articles in the literature.

The survey form is comprised of two sections and a total of 36 questions. The first section includes six questions about the demographic characteristics of white collar workers such as their gender, age, faculty, organizational position and monthly income.

The second section makes an attempt to measure six observable variables under the heading “Three Latent Variables (Independent, X), namely Strategy Orientation, Firm Strategies and Management Approach. There are 12 questions for the observable variables “competitor orientation”, “customer orientation” and “technology orientation” under the heading “Strategic Orientation”; six questions for the observable variables “aggressive strategy” and “defensive strategy” under the heading “Firm Strategies”; and another six questions for the observable variable “total quality management” under the heading “Management Approach”.

There are six questions for the observable variable “firm performance” under the heading Non-Observable Performance Variable. The complete form of the survey form is presented in Figure 1. The references for the questions included within the survey form are presented below according to their titles.

Under the heading “Strategy Orientation” three questions for customer orientation, five questions for competitor orientation and four questions for technology orientation were designed as inspired by the studies conducted by Yılmaz et al., (2005), Varinli and Yaras (2009), Zolfagharian and Cortes (2010), Martin-Consuegra and Esteban (2007), Morgan and Strong (1997) and Mueller et al. (2001). Under the heading “Firm Strategy”, two questions for aggressive strategy and four questions for innovative strategy were designed as inspired by the studies conducted by Yang (2007), Gatignon and Xuereb (1997), Morgan and Berthon(2008) and Naidoo (2010). Five questions for total quality management were designed as inspired by the studies carried out by Elghamrawy and Shibayama (2008), Bernold et al., (2008), Choi and Eboch (1998). The 5 point Likert-type scale consists of five optional answers for the participants: Strongly Disagree, Disagree, Partly Agree, Agree and Strongly Agree.

Participants

The population of the study is comprised of the white-collar employees who work for a world-famous automotive firm operating in Eskisehir and Gebze. Out of the 900 white-collar employees, 607 are male and the remaining 293 are female. The survey forms were submitted to a total of 900 white-collar employees. Nevertheless, only 245 of them were turned. In the end, 167 male employees and 78 female employees returned the survey form

Experimental Method and Hypothesis

Figure 4.1 presents the conceptual model established as a result of an intensive review of literature. The model has six observable variables determined in order to measure three non-observable (Latent, Independent, X) variables (Strategy Orientation, Firm Strategies and Management Approach).

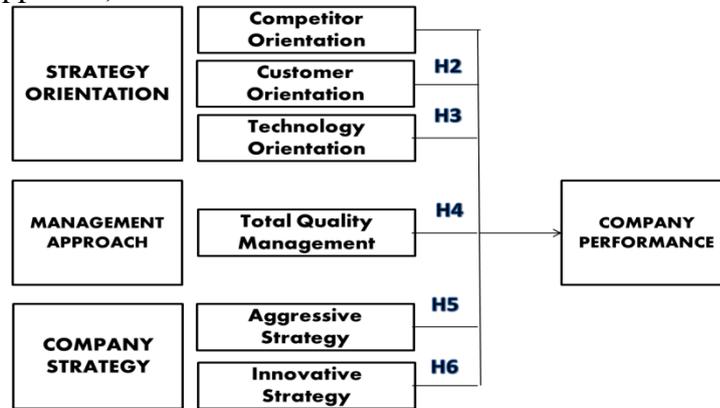


Figure 1. The Conceptual Model

The hypotheses: Direct correlations among the non-observable (Latent) variables will be tested.

H1: Practices based on competitor orientation have a positive influence on firm performance.

H2: Practices based on customer orientation have a positive influence on firm performance.

H3: Practices based on technology orientation have a positive influence on firm performance.

H4: Practices based on total quality management have a positive influence on firm performance

H5: Practices based on aggressive strategy have a positive influence on firm performance.

H6: Practices based on innovative strategy have a positive influence on firm performance.

The Data Collection Instrument

The data collection instrument for the study was the survey method. Previous similar surveys were drawn on. The survey form is comprised of a total of 36 questions. The six of them are about demographic characteristics and the remaining 30 are concerned with implied structures. The 5 point Likert-type scale consists of five optional answers for the participants: Strongly Disagree, Disagree, Partly Agree, Agree and Strongly Agree.

Data Analysis Method

What followed the conceptual model was the process of data collection. The scheme on the stages of the study is presented in Figure 1. For data collection purposes, a survey form was designed with questions that were thought to measure the problem. Accordingly, the findings were subjected to multiple-variable statistical analyses. Prior to the testing of the hypotheses through the YEM, the data obtained from the participants were studied for validity and reliability. For validity purposes, the scales included in the study were subjected to a factor analysis. The total variance each factor accounted for was analyzed. Investigating the root of the interdependent correlations between the variables, factor analysis enables one to present and interpret data in a more summarized way. 0.50 or above is recognized as acceptable in the literature.

Findings and Discussion

Reliability Analysis

Cronbach's Alpha for the study is 0.92, i.e. above the reliability limit recommended in the literature- 0.70- which suggests how reliable the survey form is. The analyses through SPSS are presented in Table 1.

Table 1. Reliability Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
,920	29

Demographic Characteristics

The demographic characteristics of the participants and the percentages are presented in the form of sections in the tables below.

Table 2. The Values of Demographic Variables of The Participants

For Factory in İnönü		Person	%	For Factory in Gebze		Person	%
Gender	Men	63	%78,8	Gender	Men	99	%61,9
	Women	17	%21,2		Women	61	%38,1
Age	18-25	12	%15	Age	18-25	21	%13,1
	26-34	64	%80		26-34	124	%77,5
	35-44	4	%5		35-44	15	%9,4
Marital Status	Married	27	%33,8	Marital Status	Married	105	%65,6
	Unmarried	53	%66,2		Unmarried	55	%34,4
Bachelor's degree	Engineering	75	%93,8	Bachelor's degree	Engineering	146	%91,2
	Bussines	4	%5		Bussines	13	%8,1
	Economics	1	%1,2		Economics	1	%0,6
Position in Factory	Engineer	76	%95	Position in Factory	Engineer	132	%5,6
	Civil Servant	4	%5		Civil Servant	9	%82,5
	Administrator	0	0		Administrator	19	%11,9
Net Income (TL-Per month/per person)	1501-2000	1	%0,06	Net Income (TL-Per month/per person)	1501-2000	1	%0,6
	2001-2500	11	%6,8		2001-2500	16	%10
	2501-3000	25	%15,5		2501-3000	29	%18,1
	3001-3500	12	%7,5		3001-3500	40	%25
	3501-4000	0	0		3501-4000	4	%2,5
	4001-4500	3	%1,9		4001-4500	6	%3,8
	4501-5000	2	%1,2		4501-5000	6	%3,8
5001 and more	26	%16,1	5001 and more	58	%36,2		

Explanatory Factor Analysis

As explained in a detailed way under the chapter Data and Information Analysis, necessary validity and reliability studies were carried out prior to the multiple-variable analyses. At the first stage of the factor analysis, 43 variables were subjected to the factor analysis. The purpose of this stage is to determine those variables with a factor load below 0.50 and to obtain completely distinct factor sizes. The table for the factor analysis is presented below.

The factor analysis yielded seven different factors (Table 3). A review of the factor groups and factor sizes suggests that factors gather under the dimensions that are dealt with and studied. The analysis revealed that the total variance accounted for (KMO- kaiser-meyer-olkin Measure) is 0.883, highly above the acceptable limit- 0.50- in the literature. Afterwards, the available variables were subjected to another reliability analysis for the YEM. The reliability analysis following the factor analysis yielded the result= alfa=0.92, a value higher

than the accepted 0.70, which suggests that it is highly reliable. The results of the factor analysis are presented in Table 3.

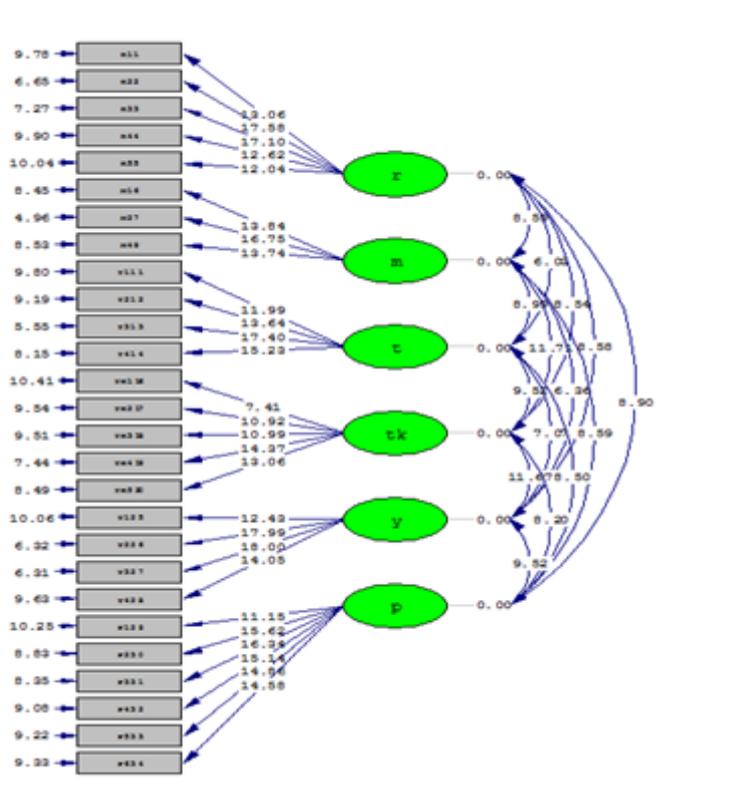
Table 3. Factors Name and Ranking

FACTORS NAME AND EXPRESSIONS	Factor Degree
COMPETITOR ORIENTATION	
(R11) Advances made by the competitors accelerate the use of technological applications in the firm I work for.	0.754
(R22) The firm I work for has the ability to determine its current and potential competitors..	0.844
(R33) The firm I work for has the ability to analyze its current and potential competitors.	0.871
(R44) The firm I work for attaches constant importance to the development of its products in order to be superior to its competitors in the market.	0.620
(R55) The firm I work for conducts market analyzes in the sector..	0.692
CUSTOMER ORIENTATION	
(M16) The firm I work for conducts regular studies to determine customer complaints..	0.745
(M27) The firm I work for conducts periodical studies to determine current and potential customer expectations.	0.828
(M49) The firm I work for attaches enough importance to after-sale services.	0.744
TECHNOLOGY ORIENTATION	
(T111) The firm I work for has a powerful technological infrastructure for production and development	0.780
(T212) The firm I work for has a technological infrastructure powerful enough to take risks in the markets.	0.828
(T313) The firm I work for has the ability to integrate software updates with its own systems.	0.809
(T414) The firm I work for has efficient systems incorporated into its e-service policies.	0.739
MANAGEMENT APPROACH	
(Tk116) The firm I work for has a management approach centered on processes..	0.698
(Tk217) The firm I work for has a management approach that assigns responsibility to each individual within the organization.	0.763
(Tk318) The firm I work for has a customer-oriented management approach that ensures constant improvement on the processes.	0.666
(Tk419) The firm I work for has role-model superior managers in order to provide high-quality products in all activities.	0.610
(Tk520) The firm I work for provides its employees opportunities necessary for training, development and innovation.	0.520
INNOVATIVE STRATEGY	
(Y125) The firm I work for has the ability to improve market conditions through new products and technologies	0.685
(Y226) The firm I work for consistently foresees prospective demands and creates new opportunities.	0.844
(Y327) The firm I work for has the ability to foresee changes, developments and requirements in the market.	0.851
(Y428) The firm I work for analyzes the threats posed and opportunities provided by the sector.	0.771
COMPANY PERFORMANCE	
(P129) The firm I work for has a large market share in the sector..	0.709
(P230) The firm I work for has a satisfactory image in the sector..	0.829
(P331) The firm I work for has a high brand value.	0.838
(P432) The firm I work for has high financial rates.	0.851
(P533) The firm I work for has a high customer satisfaction level.	0.691
(P634) The firm I work for has a high after-sale service satisfaction	0.656

Confirmatory Factor Analysis

The confirmatory factor analysis studied the consistency of the measuring model that will be tested through both factor analysis and regression analysis with structural equation modeling and the correlations among latent variables.

The CFA revealed that the representation percentage of the aggressive strategy is above 1. Therefore, the model was revised and the aggressive strategy was excluded from the model. The new model was subjected to the CFA again. The results of the second CFA are presented in Figure 2.



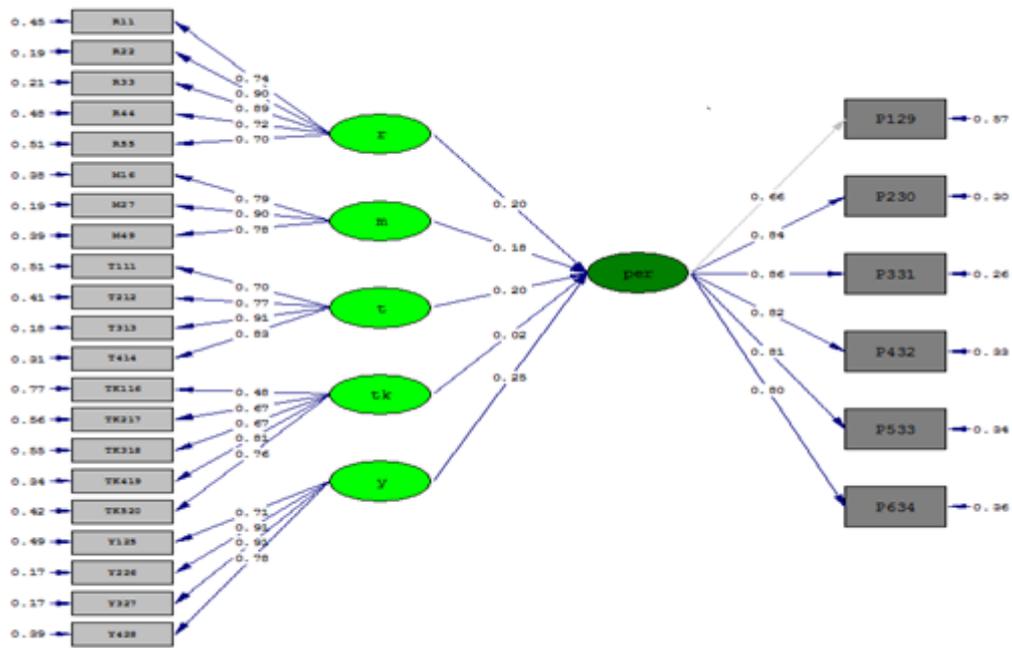
Per; Company Performance, R; Competitor Orientation, M; Customer Orientation, T; Technology Orientation, S; Aggressive Strategy, Y; Innovative Strategy, Tk; Total Quality Management

Figure 2. Confirmatory Factor Analysis

The most important part of investigating the consistency of a model is the part where best fit values for evaluating the model as a whole are displayed. Table 4 presents the best fit statistics in the file OUT taken for the model once Lisrel is run. The model is an acceptable one. When it is evaluated in accordance with best fit intervals, the proportion of Chi-Square value (1223,01) to the degree of independence (309) (serbestlik derecesi) is below 2, which is an indicator of best fit. Furthermore, RMSEA (0.11), NFI(0.90), NNFI(0.92), CFI(0.93), AGFI(0.66) and GFI(0.73) are within the boundaries of best fit, which suggests how reliable the model is (Fox (1984), Browne (1984), Kaplan (2000), Yilmaz and Celik (2004)).

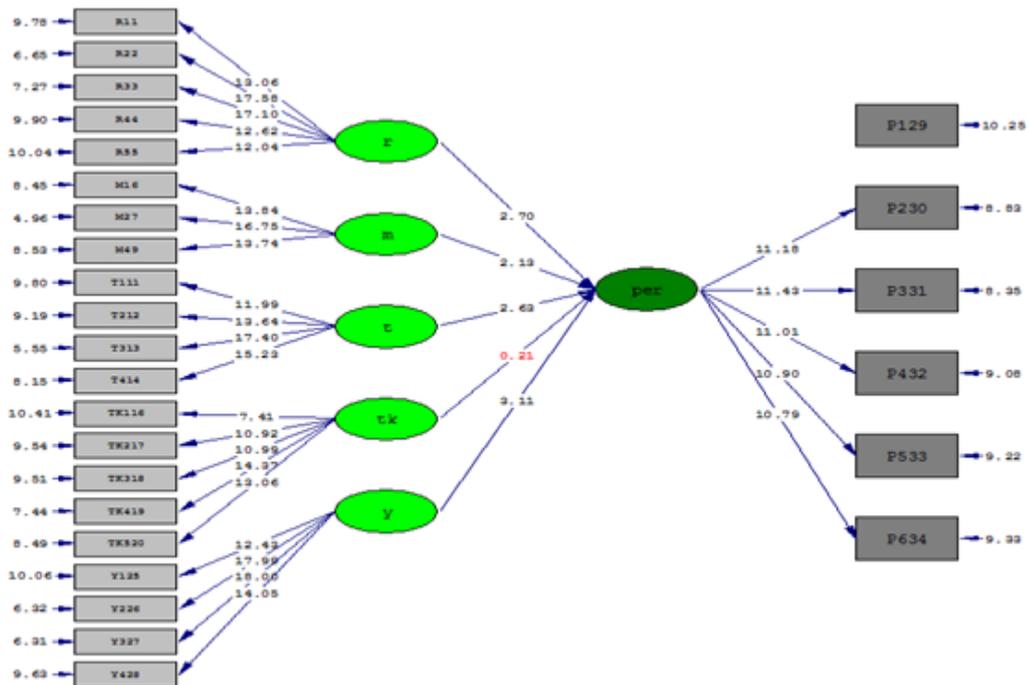
Structural Equation Model

The conceptual model was constructed through structural equation modeling following a consideration into the consistency of the model variables of the reliability analysis, factor analysis and confirmatory factor analysis. The LISREL output of the model is presented below.



Per; Company Performance, R; Competitor Orientation, M; Customer Orientation, T; Technology Orientation, S; Aggressive Strategy, Y; Innovative Strategy, Tk; Total Quality Management

Figure 3. Standardized values of the Structural Model



Per; Company Performance, R; Competitor Orientation, M; Customer Orientation, T; Technology Orientation, S; Aggressive Strategy, Y; Innovative Strategy, Tk; Total Quality Management

Figure 4. T-Test Values of the Structural Model

Figure 3 presents the t-test values for each variable. Each variable was found to be significant, for the data was statistically significant at 5%.

A review of the latent structure under the heading “performance” suggests that the degree of the effect of the variables on the structure is over 0.50. Under the same heading,

sectoral share of the firm (0.66) is the least important factor in firm performance. The sector share of the firm is very important for the present study, as is the case for most studies. However, it should be noted here that it is the brand value that white-collar employees perceive as the most important factor in firm performance.

As for the variables under the heading “competitor orientation”, employees regard the ability of a firm to determine current and potential competitors (0.90) as the most important variable in firm performance. The least important variable, on the other hand, is market analyses (0.70).

As for the variables under the heading “customer orientation”, employees consider studies for determining current and prospective customer expectations (0.90) as the most important variable in firm performance. The least important variable, on the other hand, is the level of importance attached to after-sale services (0.78).

As for the variables under the heading “technology orientation”, employees consider the ability of a firm to integrate software updates with its own systems (0.91) as the most important variable in firm performance. The least important variable, on the other hand, is the powerful technological structure for production and development (0.70). The reason for this is that employees do not think that the firm they work for has the required technological infrastructure.

As for the variables under the heading “innovative strategy”, employees consider the ability to foresee prospective demands in a consistent manner and to predict advances, changes and requirements in the market (0.91) as the most important variable in firm performance. The least important variable, on the other hand, is the ability to change market conditions through new products and technologies (0.71).

As for the variables under the heading “total quality management”, employees consider the focus on processes (0.48) as the least important variable in firm performance. The most important variable, on the other hand, is role-model superior managers for providing high-quality products (0.81).

Table 4. Correlations among Dependent Latent Variables

STRUCTURAL EQUATIONS						
per = 0.20*r + 0.18*m + 0.20*t + 0.021*tk + 0.25*y, Errorvar.= 0.58 , R1 = 0.42						
	(0.074)	(0.085)	(0.075)	(0.098)	(0.079)	(0.11)
	2.70	2.13	2.63	0.21	3.11	5.43

As presented in Table 4 the statistical structures for dependent latent variables obtained through Lisrel could be considered as the functional structures obtained at the end of the study. As can be concluded from the table, independent latent structures affecting dependent latent variables and effect coefficients (etki katsayıları) are presented in the form of an equation. The equation is the performance function obtained at the end of the study.

Conclusion

The present study on the strategic management activities of one of the leading automotive firms in Turkey yielded statistically significant findings. The outlined hypotheses were confirmed, though partly. Within the framework, the correlations were determined among strategic-orientation, firm strategies and total quality management.

According to the YEM results, innovative strategy presents itself as the most significant factor in firm performance. This effect is caused by the ability of firms to react to signals from the market in a quick way.

Competitor orientation and technology orientation are the second most important factors in firm performance. Firm performance is affected positively when firms determine and analyze their competitors, when they are triggered by the advances made by them and

when they accelerate their activities. Market analyzes in their particular sectors enable them to determine the current status of their competitors, to get an edge over them and to develop new products and technologies. In order to do so, they are required to have a powerful technological infrastructure. Such a powerful infrastructure provides them with the ability to take risks in the market. Firm performance is affected positively when firms are able to integrate software updates with their systems and incorporate efficient systems into their e-service policies.

Customer orientation has a strong and significant influence on firm performance. Customers and firms share common values and strategies in cooperation with each other in the long run. In order to do so, firms establish direct contact with customers, collect information about their requirements and use it for designing and delivering products and services. In this way, customer requirements are met, current and potential expectations are determined and customers are satisfied. All this process has a positive impact on firms.

Total quality management affects firm performance very slightly. Practices based on total quality management are considered to have an effect on non-financial performance standards but no observable short-term influence on financial performance criteria.

Performance evaluation is to measure the extent to which strategic activities of a firm is successful during the previous period, to determine its weakness and to find out new strategies with the aim of experiencing a more successful process during the next period. Strategy includes activities for a new period whereas performance evaluation is concerned with a previous term. In other words, the outputs of performance evaluation turn out to be the input of new strategies.

According to the study carried out on two different factories of the automotive firm in question, there are differences in individual and organization perceptions under the same organizational roof. In order to make organizational goals be achieved by all members at least at a minimum level, firms should specify their vision in a clear way, sustain it, inform employees about it and develop goals that can be accepted and adopted by all members.

For success and high performance, firms should specify their goals and objectives in a clear way and enable all their employees adopt them. Employees should share responsibility and assemble at regular intervals in order to determine the extent to which goals and objectives are achieved. In a working environment marked by goals perceived and adopted by all members and responsibilities shared, employees will not feel alienated from their firm and will work more productively. In this way, they will not only feel more motivated but also make great contributions to firm performance. The system of performance evaluation should be restructured in a way that will measure fundamental expectations in consistent with the vision of the firm. These expectations can be listed as financial expectations, customer expectations, internal business expectations, change-related or similar learning expectations.

In conclusion, it is necessary for a successful firm performance to attach importance to technological infrastructure, to be open to innovations, to have a customer-oriented management philosophy, to closely monitor the activities of competitors and to outscore them. Any movement without a consideration into which factors affect what and to what extent is bound to be incomplete.

The present study can be considered at a macro-level. More detailed analyses of the problem could be made through evaluations of new models on any parts of the study.

References

- Alkan N. (2004), "Bilişsel Değerlendirmeler, Duygular ve Başa Çıkma: Yapısal Eşitlik Tekniği İle Etkileşimsel Stress ve Başa Çıkma Modelinde İncelenmesi", Phd Thesis, *Middle East University, Institute of Social Sciences*, Ankara, 34-42

- Au G. ve Choi I. (1999), "Facilitating implementation of Total Quality Management through information technology," *Information and Management*, 36, 287-299.
- Bernold L.E. (2008), "Applying Total-Quality-Management principles to improving engineering education," *Journal of Professional Issues in Engineering Education and Practices*, 10.1061/_ASCE_1052-3928, 33-40.
- Carpenter J.(2003), "An Examination of the Relationships Between Consumer Benefits", Phd Thesis, *University of Tennessee*, Knoxville, 54-69.
- Ceylan A. ve Ulutürk Y.H., (2006). "Rol Belirsizliği, Rol Çatışması, İş Tatmini ve Performans Arasındaki İlişkiler", *Doğuş Univesity Journal* 7(1) 48-56, İstanbul
- Chinho L. ve Wing S. (2004), "A Structural Equation Model of Supply Chain Quality Management and Organizational Performance", *International Journal of Production of Economics*, 127-129.
- Choi T.Y. ve Eboch K. (1998), "The tqm paradox: relations among tqm practices, plant performance, and customer satisfaction," *Journal of Operations Management*, S0272-6963(98)00031-X, 59-75.
- Dee D.E. ve Arditı D. (2006), "Total Quality Performance of design/build firms using quality function deployment," *Journal of Construction Engineering and Management*, 132, 49-57.
- Elghamrawy T. ve Shibayama T. (2008) "Total Quality Management implementation in the egyptian construction industry," *Journal of Management in Engineering*, 24, 156-161.
- Deshpande R., Farley J.U. ve Webster F.E (1993), "Corporate culture, customer orientation and innovativeness in Japanese firms: A quadrad analysis," *Journal of Marketing*, 57, 23-27.
- Flynn B.B., Schroeder R.G. ve Skakibara S. (1994), "A framework for quality management research and an associated measurement instrument," *Journal of Operations Management*, 11, 339-366.
- Gatignon H. ve Xuereb J.M. (1997), "Strategic orientation of the firm and new product performance," *American Marketing Association*, 34,1, 77-90.
- Hagedoorn, J. ve Cloudt, M. (2003), "Measuring innovative performance: is there an advantage in using multiple indicators?" *Research Policy*, 32, 1365-1379.
- Hair J., Anderson R.E. ve Tapham, R.L., "Multivariate Data Analysis", 2 nd ed. , *Printice Hall*, 54-67 (1998).
- Han J.K., Kim N. ve Srivastava R.K. (1999), "Market orientation and organizational performance: Is innovation a missing link?," *Journal of Marketing*, 62, 30-45.
- Kannan V.R. ve Tan K.C. (2005), "Just in time, Total Quality Management, and supply chain management: understanding their linkages and impact on business performance", *Omega*, 33, 153-162.
- Kaufman R. ve Zahn D. (1993), "Quality management plus, the continuous improvement of education press", 7,123-321
- Harrison-Walker L. J. (2001), "Measurement of market orientation and its impact on business performance," *Journal of Quality Management*, 6, 139-172
- Kelly D. ve Rice M.P. (2001), "Advantage beyond founding, the strategic use of technologies," *Journal of Business Venturing*, 17, 41-57.
- Kohli A.K. ve Jaworski B.J. (1990), "Market Orientation: the construct, research propositions and managerial implications, *Journal of Marketing*, 54(2): 1-18
- Lawson B. ve Samson D. (2001), "Developing innovation capability in organizations: A dynamic capabilities approach," *International Journal of Innovation Management*, 5, 3, 1-23.
- Lumpkin G.T. ve Dess G.G. (2001), "Linking two dimensions of entrepreneurial orientation

- to firm performance: The moderating role of environment and industry life cycle,” *Journal of Business Venturing*, 16, 429-451
- Lyon D. W., Lumpkin G.T. ve Dess G.G. (2000), “Enhancing entrepreneurial orientation research operationalizing and measuring a key strategic decision making process,” *Journal of Management*, 6, 5, 1055-1085.
- Martinez-Costa M., Martinez-Lorente A.R. ve Choi T.Y. (2008), “Simultaneous consideration of TQM and ISO 9000 on performance and motivation: an empirical study of Spanish companies,” *International Journal of Production Economics*, 113,1, 23-39.
- Marti'n-Consuegra ve Esteban A. (2007), “Market orientation and business performance: An empirical investigation in the airline industry,” *Journal of Air Transport Management*, 13, 383-386.
- Mavondo, F. T. (2000), “Marketing as a form of adoption: Empirical evidence from a developing economy,” *Marketing Intelligence and Planning*, 18, 5, 256-272.
- Micheels E.T. ve Gow H.R. (2010), “The impact of alternative market orientation strategies on firm performance: customer versus competitor orientation,” *Agricultural & Applied Economics Association's*, 1-10
- Morgan R.E. ve Berthon P. (2008), “Market orientation, generative learning, innovation strategy and business performance inter-relationships in bioscience firms,” *Journal of Management Studies*, 45,8, 1329-1354
- Morgann R.E. ve Strong C.A. (1997), “Market orientation and dimensions of strategic orientation,” *European Journal of Marketing*, 32, 1051-1073.
- Mueller T.A., Walter A. ve Gemuenden H.G. (2001), “The impact of customer orientation and competitor orientation on organizational performance of new software ventures,” 1-19.
- Naidoo V. (2010), “Firm survival through a crisis: the influence of market orientation, marketing innovation and business strategy,” *Industrial Marketing Management*, IMM-06458, 1-10.
- Narver J.C. ve Slater S F. (1990), “The effect of market orientation on business profitability,” *Journal of Marketing*, 54(4): 20–35.
- Noble C. H., Sinha R.K. and Kumar A. (2002), “Market orientation and alternative strategic orientations: A longitudinal assessment of performance implications,” *Journal of Marketing*, 66: 25-39.
- O’Cass A.(2000), “An Assessment of Consumers Product, Purchase Decision, Advertising and Consumption Involvement in Fashion Clothing”, *Journal of Economic of Psychology*, 21: 545-576.
- Pelham A.M. ve Wilson D. (1996), “A longitudinal study of the impact of market structure, firm structure, strategy and market orientation culture on dimensions of small-firm performance,” *Journal of The Academy of Marketing Science*, 24, 1, 27-43.
- Porter, M.E. (1991), “Towards a dynamic theory of strategy,” *Strategic Management Journal*, 12, 95-117.
- Porter, M.E. (1985), “*Competitive Advantage: Creating and Sustaining Superior Performance*,” New York: The Free Press.
- Prajogo, D.I. ve Sohal, A. (2006) “The relationship between organization strategy, Total Quality Management, and organization performance—the mediating role of TQM”, *European Journal of Operational Research*, 168, 1, 35-50.
- Singh S. ve Ranchhod A. (2004), “Market orientation and customer satisfaction: Evidence from British machine tool industry,” *Industrial Marketing Management*, 33, 2, 135-144.
- Soto-Acosta P. ve Meroño-Cerdan A.L. (2008), “Evaluating internet technologies business effectiveness,” *Telemat Information*, doi:10.1016/j.tele.2008.01.004
- Tatlıdil H. (1992), “Uygulamalı Çok Değişkenli İstatistik”, *Akademi Press*, Ankara 85- 89

- Varinli I., Yarař E. ve Bařalp A. (2009), "Satıř elemanlarının duygusal zekasının bir göstergesi olarak algılanan performans, satıř ve müşteri odaklılık," *Cumhuriyet University, İktisadi ve İdari Bilimler Press*, 10,1, 159-174.
- Yang Y., Zhu H. ve Wu G. (2007), "Untangling the strategic orientation and its impact on production innovation performance: An empirical study on the Chinese enterprises," *Research Center for Technological Innovation*, 1-29.
- Yılmaz C., Alpkan L. ve Bulut Ç. (2005), "Firmaların kültürel oryantasyonlarının çeřitli performans boyutlarına etkileri: Türk imalat ve hizmet işletmeleri üzerinde bir saha çalışması," *Journal of Yařar University*, 4,16, 2469-2500.
- Webster R.L., Rothwell J.C. ve Hammond K.L. (2010), "Customer and market orientation within AACSB member business school: comparative views from three levels of administrators," *American Journal of Business Education*, 3,7, 79-91.
- Wen W. (2010), "Business performance evaluation model for the taiwan electronic industry based on factor analysis and AHP method," *Proceedings of the World Congress on Engineering*, 3, 958-966.
- Zhang O. ve Doll W.J. (2001), "The fuzzy front end and success of new product development: A casual model," *European Journal of Innovation Management*, 4, 2, 95-112.
- Zolfagharian M.A. ve Cortes A. (2010), "Linking market orientation to strategy through segmentation complexity," *Journal of Business & Economics Research*, 8,9, 79-91.