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Analysis on Moderator Effect of Environmental Factors in The Relationships Among Entrepreneurial Orientation, Innovation Capacity and Financial Performance*

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Abstract

The aim of the study is to conduct research on the moderator effects of environmental factors on the relationships among entrepreneurial orientation, innovation capacity, and financial performance. From this perspective, the main objective of the levels of the study is to investigate the relationship of the dimensions of entrepreneurial orientation; "innovation, proactivity and risk-taking" with innovation capacity and financial performance, and to reveal the moderator effects of environmental dynamism and environmental competition on these relationships. The population of the research for this purpose is constituted by Türkiye's production centers in Istanbul and Kocaeli regions. The sample of the study, however, consists of 210 executives of the companies with an R&D center and 50 or more employees determined by the judgmental sampling method. The survey questionnaire technique is used to obtain the data due to its superior data analysis features. The structural equation model was used to test the framed hypotheses. Both SPSS and SmartPLS3 software are utilized in the analysis of the data obtained collected by courtesy of the survey questionnaires. According to the analysis results; it is determined that entrepreneurial orientation has an effect on the innovation capacity. Nevertheless, no significant effects of entrepreneurial orientation and innovation capacity on financial performance are detected. It is asserted that the moderator effects of environmental factors on the relationship among entrepreneurial orientation, innovation capacity, and financial performance, which constitute the main objective of the study, are not statistically significant.

Keywords: Entrepreneurial Orientation, Innovation Capacity, Financial Performance, Moderator Variable, SmartPLS.

JEL Codes: L25, L26, O32

Girişimcilik Yönelimi, İnovasyon Kapasitesi ve Finansal Performans Arasındaki İlişkide Çevresel Faktörlerin Moderatör Etkileri Üzerine Bir Araştırma

Öz

Çalışmanın amacı girişimcilik yönelimi, inovasyon kapasitesi ve finansal performans arasındaki ilişkide çevresel faktörlerin moderatör etkileri üzerine bir araştırma yapmaktır. Bu noktadan hareketle çalışmanın asıl amacı, girişimcilik yönelimi boyutları; "yenilikçilik, proaktiflik ve risk alma" ile inovasyon kapasitesi ve finansal performans kavramları arasındaki ilişki düzeylerini tespit etmek ve bu ilişkide çevresel dinamizm ve çevresel rekabet gücünün moderatör etkisini ortaya koymaktır. Bu amaç doğrultusunda çalışmanın evrenini Türkiye'nin üretim merkezlerinden İstanbul ve Kocaeli bölgesi oluşturmaktadır. Çalışmanın örneklemini ise 50 ve üzeri çalışanı ile AR-GE merkezi olan kasıtlı örneklem yöntemiyle belirlenmiş 210 firma yöneticisi oluşturmaktadır. Verilerin elde edilmesinde üstün veri analizi sunma özelliklerinden dolayı anket tekniği kullanılmıştır. Anketler sonucu elde edilen verilerin analizinde SPSS ve SmartPLS3 programlarından yararlanılmıştır. Analiz sonuçlarına göre; girişimcilik yöneliminin inovasyon kapasitesi üzerinde etkili olduğu tespit edilmiştir. Ancak girişimcilik yöneliminin ve inovasyon kapasitesinin finansal performans üzerinde anlamlı herhangi bir etkisi tespit edilememiştir. Çalışmanın asıl amacını oluşturan, girişimcilik yönelimi, inovasyon kapasitesi ve finansal performans arasındaki ilişkide çevresel faktörlerin moderatör etkilerinin de istatistiki olarak anlamlı olmadığı tespit edilmiştir.

Anahtar Sözcükler: Girişimcilik Yönelimi, İnovasyon Kapasitesi, Finansal Performans, Moderatör Değişken, SmartPLS.

JEL Kodları: L25, L26, O32

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1. INTRODUCTION

Along with increasing technological changes and developments, global competition and changing business environments have made innovation and entrepreneurship activities of companies vital. Innovation has become an increasingly crucial and widely utilized concept within the last two decades. The most important factor that makes this concept so essential is undoubtedly one of the leading factors that provide value-added and benefits for companies and economies (Aras et al., 2014). Innovation is considered one of the most crucial sources of sustainable competitive advantage in an increasingly changing environment. The reasons why this concept is considered one of the most important sources of sustainable competitive advantage are that it causes product and process improvements, helps companies sustain, allows them to grow rapidly, makes continuous improvements that make them more efficient, and ultimately become more lucrative than non-innovative companies (Atalay, Anafarta and Sarvan, 2013: 226).

Many companies perceive innovation as a viable and permanent source of competitive advantage to maintain their growth and performance under these increasingly complex and competitive market conditions. The necessity of innovation has been widely recognized and most leaders have realized that being successful over a longer period depends on innovative processes within the organization (Kolaric and Mitrovica, 2013).

Financial performance is described as the evaluation of the extent to which companies have achieved their goals throughout a certain period based on financial performance evaluation criteria (Bulut, Yılmaz and Alpkan 2009; Ersarı, 2018). It is seen that commonly used variables in financial performance measurement in the literature consist of return on assets (ROA), return on equity (ROE), turnover profitability, market share size, increase in revenues, investment, and economic profitability (Resmi, Begum and Hassan, 2018; Lakhwani, Tiwari and Jauharı, 2017; Kamatra and Kartikaningdyah, 2015; Öncü, Bayat, Kethüda and Zengin, 2015). In this study, the company's financial performance is measured with a four-question perceptual perspective consisting of "the return on assets (profit/total assets), economic profitability (profit before interest and tax/total assets), return on sales (profit/net sales) and return on equity (profit/ equity).

Environmental dynamism is defined as the rate and unpredictability of changes in a firm's external environment (Zhang, 2006: 89). Environmental uncertainties can be expressed as the rate of change and innovation in the sectors, as well as uncertainties or unpredictability in the actions of competitors and customers (Burns and Stalker, 1961; Lawrence and Lorsch, 1967; Miller and Friesen, 1983; Ozsomer, Calantone and Benedetto, 1997). Various definitions have been made in the literature regarding competitiveness. Nevertheless, the most general definition is the one made by the President's Commission on Industrial Competitiveness (1985). Accordingly, environmental competitiveness is described as "the degree to which countries may produce goods and services in accordance with the tests of international markets while simultaneously protecting and expanding the real income of their citizens under free and fair market conditions" (President's Commission on Industrial Competitiveness, 1985: 5).

Miller (1983) defined the dimensions of entrepreneurial orientation in three dimensions "innovation, proactivity and risk-taking". Similarly, Covin and Slevin (1991) used three sub-dimensions of entrepreneurial orientation, namely, "innovation, proactivity, and risk-taking". Nonetheless, Lumpkin and Dess (2001) stated that the entrepreneurial orientation function had a multidimensional character and, as Miller (1983) and Covin and Slevin (1991) claimed, that it did not merely have three sub-dimensions, but also "autonomy and competitive aggression". Notwithstanding, the dimensions of entrepreneurial orientation are commonly considered as "innovation, proactivity, and risk-taking" in strategy and entrepreneurship literature. In the study, the dimensions of innovation, proactivity, and risk-taking are also taken into consideration as widely used in the literature.

The existence of contradictory findings in the relationship between innovation capacity, entrepreneurial orientation dimensions, and financial performance in the literature indicates that there

may be other variables (for instance, mediator and moderator variables) that affect such a relationship. Therefore, the aim of the study is to determine the moderator effects of environmental factors (environmental dynamism and environmental competition) on the relationship among entrepreneurial orientation, innovation capacity, and financial performance. To this end, the study consists of five parts. In the first part, the introduction part explained. In the second part, empirical and theoretical studies in the literature are reviewed and hypotheses are established in compliance with the literature as well as the general arguments of the related theory. In the third part, the dataset and methodology of the research study are presented. Following the explanation of the research findings and comments in the fourth part, the conclusions and recommendations are explained in the fifth and the last part of the study. Along with increasing technological changes and developments, global competition and changing business environments have made innovation and entrepreneurship activities of companies vital. Innovation has become an increasingly crucial and widely utilized concept within the last two decades. The most important factor that makes this concept so essential is undoubtedly one of the leading factors that provide value-added and benefits for companies and economies (Aras, Tezcan, Kutlu and Aybarset, 2014). Innovation is considered one of the most crucial sources of sustainable competitive advantage in an increasingly changing environment. The reasons why this concept is considered one of the most important sources of sustainable competitive advantage are that it causes product and process improvements, helps companies sustain, allows them to grow rapidly, makes continuous improvements that make them more efficient, and ultimately become more lucrative than non-innovative companies (Atalay, Anafarta and Sarvan, 2013: 226).

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2. LITERATURE REVIEW AND RESEARCH HYPOTHESES

The common assumption in the studies conducted on the relationship between entrepreneurial orientation and dimensions and innovation capacity in the literature involves the existence of a positive and significant relationship between entrepreneurial orientation and dimensions and innovation capacity.

The existence of this relationship has also been confirmed by studies by authors such as (Omar, Aris and Nazri, 2016; Ribau, Moreira and Raposo, 2017; Etriya, Scholten, Wubben and Omta, 2012; Noor and Aljanabi, 2015). Based on all these studies, it is predicted that there is a significant and positive relationship in compliance with the basic arguments of the related theory. Accordingly, the following hypotheses are established.

H1: There is a statistically significant and positive relationship between entrepreneurial orientation and innovation capacity.

H1a: There is a statistically significant and positive relationship between the innovation dimension and innovation capacity.

H1b: There is a statistically significant and positive relationship between the proactivity dimension and innovation capacity.

H1c: There is a statistically significant and positive relationship between the dimension of risk-taking and innovation capacity.

Studies in the literature have extensively investigated the effect of entrepreneurial orientation on firm performance (Vu, 2017). The common assumption in the literature on strategy and entrepreneurship involves the presence of a positive relationship between entrepreneurial orientation and firm performance. The existence of this relationship has been confirmed by the studies conducted by authors such as Covin and Slevin, 1986; Zahra and Covin, 1995; Wiklund, 1999; Lumpkin and Dess, 2001; Wiklund and Shepherd, 2005; Altuntaş and Dönmez, 2010; Ayaydın and Karaaslan, 2016; Platin and Ergun, 2017; Mukarutesi, 2018). Based on all these studies, it is predicted that there is a significant and positive relationship parallel to the literature in line with the basic arguments of the related theory. Accordingly, the following hypotheses are established.

H2: There is a statistically significant and positive relationship between entrepreneurial orientation and financial performance.

H3: There is a relationship between entrepreneurial orientation and financial performance through

innovation capacity.

The relationship between dimensions of entrepreneurial orientation and financial performance has been extensively investigated in the literature. The common assumption in the strategy and entrepreneurial literature involves the existence of a positive relationship between dimensions of entrepreneurial orientation, innovation, and proactivity, with financial performance. The existence of this relationship has also been confirmed by authors such as (Rezand and Ortt, 2018; Kee and Rahman, 2017; Özer, Yılmaz and Avcı, 2017; Aminu, 2016; Özer, 2011; Muzaffar, 2011; Ağca and Kandemir, 2008). Based on all these studies, it is predicted that there is a significant and positive relationship parallel to the literature in compliance with the basic arguments of the related theory. In this respect, the following hypotheses are established.

H2a: There is a statistically significant and positive relationship between the innovation dimension and financial performance.

H2b: There is a statistically significant and positive relationship between the proactivity dimension and financial performance.

In the strategy and entrepreneurship literature, it has been stated that the direction of the relationship between financial performance and risk-taking, which is one of the entrepreneurial orientation dimensions, is quite different. There are studies that reveal that no significant relationship exists between risk-taking and financial performance, as well as studies that reveal that the existence of a significant and positive relationship. The existence of this relationship has been confirmed by authors such as (Rezaei and Ortt, 2018; Aminu, 2016; Mason, Floreani, Miani, Beltrame and Cappelletto, 2015; Filser and Eggers, 2014; Koe, 2013; Muzaffar, 2011; Rauch, Wiklund, Lumpkin, and Frese, 2009; Zahra and Garvis, 2000). Based on all these studies, it is predicted that there is a significant and positive relationship parallel to the literature in line with the basic arguments of the related theory. In this direction, the following hypotheses are established developed.

H2c: There is a statistically significant and positive relationship between the risk-taking dimension and financial performance. The literature has extensively studied the relationship between innovation capacity and financial performance. The common assumption in the literature involves the fact that innovation capacity has a greater effect on financial performance. The existence of this relationship has been confirmed by authors such as Alam, Arumugam, Nor, Kaliappan, and Fang, 2013; Naala, Nordin and Omar, 2017; Omar, Aris and Nazri, 2016; Yuan, Shin, He, and Kim, 2016; Aini, Shen, Musdaieq and Handayani, 2013; Dadfar, Dahlgaard, Brege and Alamirhoor, 2013; Talaja, 2013; Marques and Ferreira, 2009; Guan and Ma, 2003. Based on all these studies, it is predicted that a significant and positive relationship exists parallel to the literature in compliance with the basic arguments of the related theory. Accordingly, the following hypotheses are established.

H4: There is a statistically significant and positive relationship between innovation capacity and financial performance.

In the study, environmental factors are classified into two dimensions, namely, environmental dynamism and environmental competition based on the studies of Jayaram, Oke and Prajogo (2014). The literature has extensively investigated the moderator effect of environmental factors on the relationship between entrepreneurial orientation and financial performance. Studies conducted on the moderator effect of environmental factors on the relationship between entrepreneurial orientation and financial performance revealed different results. Among these results, there are studies (Zahra & Covin, 1995; Lumpkin and Dess, 2001; Wiklund and Shepherd, 2005) revealing that environmental factors have a moderator effect on the relationship between entrepreneurial orientation and financial performance. There are studies revealing that the moderator effect of environmental factors in the effects of entrepreneurial orientation and entrepreneurial orientation dimensions on financial performance is positive (Zahra, 1991; Hameed and Ali, 2011; Casillas, Moreno and Barbero, 2010; Milovanovic and Wittine, 20014; Ali, 2017; Tajeddini and Mueller, 2018). There are studies in the literature that reveal environmental factors do not have a moderator effect on the impacts of

entrepreneurial orientation and entrepreneurial orientation dimensions on financial performance. In their study, Milovanovic and Wittine (2014) revealed that environmental factors (environmental dynamism and competition) did not have any moderator effect on the relationship between entrepreneurial orientation and financial performance. Hameed and Ali (2011) revealed in their study that environmental dynamism and entrepreneurship management did not have a moderator effect on the relationship of innovation and risk-taking, which are the dimensions of entrepreneurial orientation, with financial performance. In the literature, there is no study investigating the moderator effect of environmental factors on the relationship between innovation capacity and financial performance. Studies, such as Jiao, Alon, and Cui (2011) and Schilke (2014) in the literature, have tried to explain the moderator effect of environmental factors on the relationship between innovation capacity and innovation strategies or a firm's competitive advantage. In this context, in compliance with the basic arguments of the related theory, it is predicted that environmental factors are effective in the relationships among entrepreneurial orientation, innovation capacity, and financial performance similar those of the literature. In this regard, the following hypotheses are established.

H5: Environmental dynamism positively affects the relationship between entrepreneurial orientation, innovation capacity, and financial performance, so the higher the dynamism, the stronger the relationship between entrepreneurial orientation, innovation capacity, and financial performance.

H6: Environmental competition positively affects the relationship between entrepreneurial orientation, innovation capacity, and financial performance, so the higher the competitive power, the stronger the relationship among entrepreneurial orientation, innovation capacity, and financial performance. The research model, established in accordance with all these theories and basic arguments in parallel with the literature, is illustrated in Figure 1.

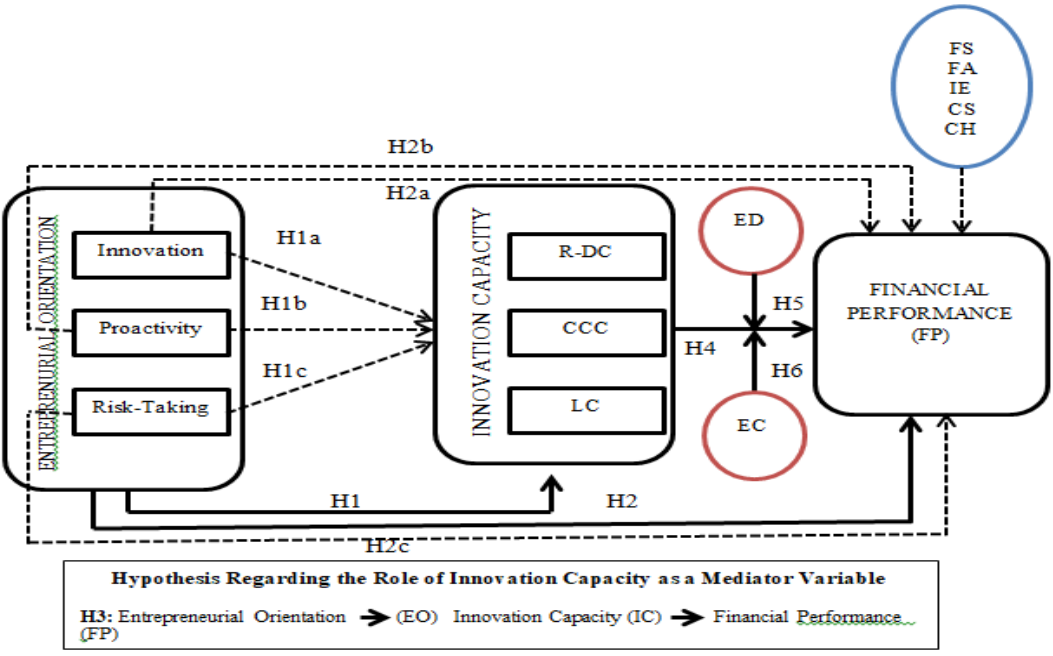

Figure 1. Research Model

3. METHODOLOGY

In this part of the study; data and method, data collection method and tool and analysis method of the research will be explained.

3.1. Data and Methodology

The research population is constituted by the founders, shareholders, and executives of the companies with R&D centers employing 50 or more employees operating in the Istanbul and Kocaeli regions in Türkiye. The judgmental sampling method is used in the selection of the sample from the population. The first reason why these regions and companies are preferred involves the existence of almost all of the studies conducted on SMEs in the literature, and the absence of studies conducted on medium and large-scale enterprises. The medium and large enterprises included in the scope of the study are located in these regions to eliminate such absence. The second reason involves the requirement for the selection of companies implementing R&D activities for the sake of measuring the innovation capacity to analyze the relationship among the variables in the study. Because R&D activities are the integral parts and preconditions of the innovation process. Information on the companies within the scope of the research is presented in Table 1.

Table 1. Information on the Companies within the Scope of the Research Study

Province	Number of Total R&D Centers Registered in the Directorate General for R&D Incentives	Number of Companies with 50 and More Employees	Number of Companies Included in the Study with R&D Centers Employing 50 and More Employees Registered in the Directorate General for R&D Incentives
İstanbul	352	3631	179
Kocaeli	106	551	31
Total	458	4182	210

Source: Kocaeli Chamber of Commerce, 2018; İstanbul Chamber of Commerce, 2018.

3.2. Data Collection Method and Tool

The survey questionnaire technique is used as the data collection method in the study, due to its standard data acquisition and the related superior data analysis (Demir and Okan, 2009: 65). The survey questionnaire consists of combining six different scales and adapting them to the Turkish language. The questionnaire form is designed as a total of seven parts and consists of 59 questions. The first part of the questionnaire form consists of the demographic characteristics of the participants and company information. The second part is the scale on innovation capacity, and it is generated on the basis of the scale developed by Oura, Zilber, and Lopes (2016), which is the most frequently used scale in the literature. The third part is the scale about entrepreneurial orientation and it is generated on the basis of the scale developed by Li, Pei, and Jiang (2017). The fourth part belongs to the scale of environmental factors and is created on the basis of the scale developed by Jayarama, Oke, and Prajogo (2014). The fifth part is the scale related to financial performance, which forms the basis of the research, and the most frequently used financial performance scales in the literature are utilized. The sixth part is the capital structure, and the seventh part is the cash holding scale.

In the survey questionnaire participants are requested to provide the most appropriate responses to each question regarding innovation capacity, entrepreneurial orientation, and environmental factors. A five-point Likert-type scale (1: Strongly Disagree, 2: Disagree, 3: Partly Agree, 4: Agree, 5: Strongly Agree) is used in rating the questionnaire. A five-point Likert-type scale (1: Extremely Unsuccessful, 2: Unsuccessful, 3: Partially Successful, 4: Successful, 5: Extremely Successful) is used in the rating of financial performance and cash holding scales. A five-point Likert-type scale (1: Decreased considerably, 2: Decreased, 3: Unchanged, 4: Increased, 5: Increased considerably) is used in the rating of the capital structure scale.

In this context, the survey questionnaire was applied to one executive, preferably an R&D department

manager, of each company with 50 or more employees operating in the Istanbul and Kocaeli regions over the period between August 2018 and June 2019. The survey questionnaire forms are filled out by phone, email or a one-on-one interview.

3.3. The Analysis Method of The Research

SPSS and SmartPLS3 software are used to analyze the data obtained from the survey questionnaires. In the data analysis, the reliability test, validity test, explanatory and confirmatory factor analysis and, frequency distribution are performed. Structural equation modeling (SEM), which is widely used by many disciplines, is used to test the hypotheses established in compliance with the aim of the study. There are several different approaches toward SEM. The most widely applied approaches in the literature are the Covariance-based SEM (CB-SEM) and Partial Least Square (PLS-SEM) approaches that concentrate on variance analysis. In this study, the Partial Least Square (PLS-SEM)] approach is used. Variables used in the study: Information regarding the variables included in the research are presented in Table 2.

Table 2. Definition of the Variables

Variables	Code	Variable Type
ENTREPRENEURIAL ORIENTATION	EO	Independent Variable
Innovation	I	Independent Variable
Proactivity	P	Independent Variable
Risk-Taking	RT	Independent Variable
INNOVATION CAPACITY	IC	Mediator Variable
Research and Development Capacity	R-DC	
Company Characteristics Capacity	CCC	
Learning Capacity	LC	
ENVIRONMENTAL DYNAMISM	ED	Moderator Variable
ENVIRONMENTAL COMPETITION	EC	Moderator Variable
FINANCIAL PERFORMANCE	FP	Dependent Variable
CONTROL VARIABLES		
Firm Size	FS	Control Variable
Firm Age	FA	Control Variable
International Experience	IE	Control Variable
Capital Structure	CS	Control Variable
Cash Holding	CH	Control Variable

In Table 2, descriptive information about the variables included in the research is given. When Table 2 is examined, it is seen that the variables of "innovation, proactivity and risk taking", which are among the dimensions of entrepreneurial orientation, are exogenous variables, while financial performance is endogenous. It is seen that the variables "Research and Development Capacity, Company Characteristics Capacity and Learning Capacity", which are among the dimensions of innovation capacity, are mediating variables, while environmental dynamism and environmental competition are moderator variables. Again, it is seen that “Firm Size, Firm Age, International Experience, Capital Structure and Cash Holding” variables, which are thought to be directly and/or indirectly related to the subject of the research, are included in the scope of the study as control variables.

4. ANALYSES AND FINDINGS

Descriptive statistics of the variables within the scope of the research are presented in Table 3.

Table 3. Descriptive Statistics of the Variables

Variables	Sub-dimension	Mean	Std. Dev.	Mean-Variance
Innovation Capacity	R-DC	4.034	3.189	0.652
	CCC* MC	3.945	0.953	0.940
	PC	4.096	0.818	0.671
	AC	3.792	0.937	0.881
	RUC	3.796	0.868	0.754
	SC	3.856	0.936	0.877
	LC	4.073	0.723	0.523
Entrepreneurial Orientation	I	3.984	0.814	0.664
	P	3.671	0.997	0.995
	RT	3.401	0.928	0.864
Environmental Competition	EC	4.334	0.711	0.505
Environmental Dynamism	ED	3.895	0.906	0.824
Financial Performance	FP	3.599	0.648	0.420
Capital Structure	CS	3.064	0.826	0.683
Cash Holding	CH	3.469	0.668	0.447
Firm Age	FA	3.844	0.703	0.494
Firm Size	FS	3.611	1.528	2.336
International Experience	IE	3.120	1.086	1.178

*Company Characteristics Capacity is comprised of Marketing Capacity, Production Capacity, Administration Capacity, Resource Utilization Capacity, and Strategic Capacity

4.1. Reliability Analysis

Since it is a crucial issue for the continuation of the study, the reliability analysis is performed on the variables included in the research study, and the results are presented in Table 4.

Table 4. Reliability Analysis Results

Variables	Cronbach's Alpha	Composite Reliability
R-DC	0.821	0.892
Financial Performance	0.889	0.931
Cash Holding	0.922	0.950
Proactivity	0.823	0.895
Risk-Taking	0.921	0.949
Capital Structure	0.910	0.943
Innovation	0.917	0.948
Learning Capacity	0.918	0.942
Company Characterisitics Capacity	0.940	0.947
Environmental Dynamism Moderator Effect LC	0.956	0.953
Environmental Dynamism Moderator Effect R-DC	0.907	0.899
Environmental Dynamism Moderator Effect CCC	1.000	1.000
Environmental Competition Moderator Effect R-DC	0.883	0.883
Environmental Competition Moderator Effect LC	0.926	0.932
Environmental Competition Moderator Effect CCC	0.956	0.951
Environmental Dynamism	0.833	0.876
Environmental Competition	0.827	0.883

Due to the fact that Cronbach's Alpha underestimates the reliability than it should be and accepts the reliability among the indicators as equal, besides the Cronbach's Alpha value, Hair, Hult, Ringle, and Sarstedt, (2014) presents Composite Reliability (CR) as an alternative value. In this study, Cronbach's Alpha and Composite Reliability values are given concurrently to mitigate this problem.

Upon examining the literature, the Cronbach Alpha value (Nunnally, 1967) is equal to or higher than 0.70, and the Composite Reliability value (CR) ranges between 0.70 and 0.95 (Hair, Hult, Ringle, and Sarstedt, 2014: 112; Sartestedt, Ringle and Hair, 2017: 16). Accordingly, upon examining Table 4, Cronbach Alpha and Composite Reliability values, which are higher than the critical reliability values stated in the literature for all variables included in the study, indicate the reliability of these variables. Upon examining the moderator effects of environmental factors, "Environmental Dynamism Moderator Effect CCC (1,000) and Environmental Dynamism Moderator Effect LC (0,953) are found to be higher than the acceptable Composite Reliability critical values (0.70 and 0.95) in the literature. Nonetheless, according to Hair, Sarstedt, Ringle and Gudergan (2018), it is not significant to evaluate the moderator effect indicators, which are formed as a result of multiplying the indicators of different variables, in terms of reliability and validity, and these variables are not expected to fulfill discriminant validity. Accordingly, the fact that all other variables are higher than the critical values of the moderator effect indicators within the scope of the research, except for the moderator effect CCC and moderator effect LC, indicates the reliability of the scales belonging to the variables.

4.2. Validity Analysis

Convergent and discriminant validity analyses are performed to determine the basic factors of the scales of the variables within the scope of the study, as well as to test the validity of the scale. The convergent validity test results are presented in Table 5.

Table 4. Reliability Analysis Results

Variables		Average Variance Extracted (AVE)
I	Innovation	0.857
P	Proactivity	0.741
RT	Risk-Taking	0.862
FP	Financial Performance	0.818
ED	Environmental Dynamism	0.589
EC	Environmental Competition	0.654
CS	Capital Structure	0.847
CH	Cash Holding	0.864
Environmental Dynamism Moderator Effect R-DC		0.403
Environmental Dynamism Moderator Effect CCC		1.000
Environmental Dynamism Moderator Effect LC		0.520
Environmental Competition Moderator Effect R-DC		0.401
Environmental Competition Moderator Effect LC		0.464
Environmental Competition Moderator Effect CCC		0.279
LC	Innovation Capacity	0.803
R-DC	Innovation Capacity	0.736
CCC	Innovation Capacity	0.562
FA	Firm Age	1.000
IE	International Experience	1.000
FS	Firm Size	1.000

In the literature, the acceptable threshold value for the AVE value is either equal to or higher than 0.50 (Sarstedt, Ringle and Hair, 2017: 17). Upon examining Table 5, the fact that the AVE value is higher than the critical values stated in the literature indicates the validity of scales regarding the variables included in the study. According to Hair, Sarstedt, Ringle and Gudergan (2018), it is not significant to evaluate the moderator effect indicators, which are formed as a result of multiplying the indicators of different variables, in terms of reliability and validity, and these variables are not expected to determine discriminant validity. Accordingly, the fact that variables other than the moderator effect indicators within the scope of the research study are higher than the critical value indicates the validity of scales regarding the variables. Besides, the fact that the AVE values of the control variables such as international experience, firm size, and firm age are 1,000 leads to the generation of a single scale for each one separately to measure these variables.

The discriminant validity of the variables within the scope of the study is measured by the Fornell-Larcker criteria and the results (see Appendix A) are presented in Table 6. According to the Fornell-Larcker criteria, the square root of the average variance extracted (AVE) of each variable must be higher than the correlation of the variable with other variables (Doğan, 2019: 46). In other words, the bold figures are the square roots of the AVE value of the relevant variable, and each value must be higher than the correlation values in the column to which it is attached. Upon examining Table 6, it is seen that the AVE value of each variable is higher than the correlations of other variables in the same column. In this case, it indicates that the scales fulfill the discriminant validity condition. Moreover, upon examining the correlation coefficients of the variables, it is seen that their values range between -0.004 and 1.000.

Multicollinearity, Prediction Power and Effect Size Tests: Multicollinearity, Prediction Power and Effect Size test and its results: Since the PLS-SEM analysis method concurrently estimates various

regressions, it is essential whether or not each endogenous variable has linearity among its own exogenous variables (Doğan, 2019: 89). Accordingly, it is tested with the variance inflation factor (VIF) whether there was a multicollinearity problem among the variables within the scope of the research and the test results are presented in Table 7. Similarly, the predictive power (Q^2) and effect size (f^2) and R^2 test results are also given in Table 7.

Table 7. VIF, Q^2, f^2 and R^2 Results of the Variables

Variance inflation factor (VIF) results				
Variables	**R-DC**	**FP**	**LC**	**CCC**
R-DC		1,715		
Financial Performance				
Cash Holding		1,313		
Proactivity	1,290	1,662	1,290	1,290
Risk-Taking	1,284	1,525	1,284	1,284
Capital Structure		1,218		
International Experience		1,618		
Innovation	1,087	1,674	1,087	1,087
Environmental Dynamism		1,530		
Environmental Competition		1,529		
Environmental Dynamism Moderator Effect LC		3,172		
Environmental Dynamism Moderator Effect CCC		2,475		
Environmental Dynamism Moderator Effect R-DC		2,578		
Environmental Competition Moderator Effect LC		2,076		
Environmental Competition Moderator Effect CCC		2,345		
Environmental Competition Moderator Effect R-DC		2,282		
Learning Capacity		1,772		
Company Characteristics Capacity		2,598		
Firm Size		1,309		
Firm Age		1,615		

Predictive Power Analysis (Q^2) Results			
	SSO	**SSE**	**Q^2 (=1-SSE/SSO)**
R-DC	501,000	448,699	0,104
Financial Performance	501,000	413,192	0,175
Cash Holding	501,000	501,000	
Proactivity	501,000	501,000	
Risk-Taking	501,000	501,000	
Capital Structure	501,000	501,000	
International Experience	167,000	167,000	
Innovation	501,000	501,000	
Environmental Dynamism	3.340,000	3.340,000	
Environmental Competition	11.690,000	11.690,000	
Environmental Dynamism Moderator Effect LC	2.004,000	2.004,000	
Environmental Dynamism Moderator Effect CCC	2.672,000	2.672,000	
Environmental Dynamism Moderator Effect R-DC	9.352,000	9.352,000	
Environmental Competition Moderator Effect LC	2.505,000	2.505,000	
Environmental Competition Moderator Effect CCC	835,000	835,000	
Environmental Competition Moderator Effect R-DC	668,000	668,000	
Learning Capacity	668,000	579,284	0,133
Company Characteristics Capacity	167,000	167,000	0,203
Firm Size	2.338,000	1.864,002	
Firm Age	167,000	167,000	

Effect Size (f^2) Results				
	R-DC	**FP**	**LC**	**CCC**
R-DC		0,011		
Financial Performance				
Cash Holding		0,031		
Proactivity	0,077	0,034	0,055	0,121
Risk-Taking	0,002	0,001	0,001	0,008
Capital Structure		0,013		
International Experience		0,045		
Innovation	0,063	0,004	0,118	0,319
Environmental Dynamism		0,000		
Environmental Competition		0,062		
Environmental Dynamism Moderator Effect LC		0,002		
Environmental Dynamism Moderator Effect CCC		0,005		
Environmental Dynamism Moderator Effect R-DC		0,000		
Environmental Competition Moderator Effect LC		0,005		
Environmental Competition Moderator Effect CCC		0,000		
Environmental Competition Moderator Effect R-DC		0,004		
Learning Capacity		0,030		
Company Characteristics Capacity		0,005		
Firm Size		0,002		
Firm Age		0,000		

R^2 Results		
	R^2	**R^2 Adjusted**
R-DC	0,160	0,144
Financial Performance	0,287	0,195
Learning Capacity	0,189	0,174
Company Characteristics Capacity	0,408	0,397

The VIF value must be lower than 5 in order to avoid multicollinearity problems among the variables (Hair, Hult, Ringe and Sarstedt, 2014). Upon examining Table 7, it is seen that the VIF values of all variables are lower than the threshold value of 5. This situation indicates that no multicollinearity problem exists among the variables included in the model.

The prediction power (Q^2) value is the value that shows how well the correlation coefficients can predict an observed dependent variable (Doğan, 2019: 95). According to Hair, Hult, Ringle, and Sarstedt (2014), in the evaluation to be made for Q^2 values, it is evaluated as 0.02 low, 0.15 medium and 0.35 high. When Table 7 is examined, it is seen that the Q^2 value of the financial performance variable, which is the dependent variable, is 0.175. This situation shows that the research model has the power to predict the financial performance variable at a medium level. Similarly, one of the intermediary variables, the Q^2 value of the R-DC is 0.104, the Q^2 value of the learning capacity is 0.133 and the Q^2 value of the company characteristics capacity is 0.203. This situation shows that the research model has the power to predict R-DC and learning capacity at a low level, which is one of the mediator variables, while it shows the power to predict the capacity of business characteristics at a medium level.

The effect size is determined by f^2 values. The value of f^2 is calculated for each independent variable and shows the share of the independent variable in the dependent variable explanation rate (Doğan, 2019: 51). The evaluation of the f^2 value is considered to be 0.02 low, 0.15 medium and 0.35 high (Cohen, 1988; Doğan, 2019). When the f^2 values of the models given in Table 7 are examined, the dependent variables of proactivity from independent variables, cash attitude from control variables,

environmental competition from moderator variables and learning capacity from mediator variables are respectively; It is seen that they explain at a low level with 0.034, 0.062 and 0.031, 0.030. However, as stated by (Sartestedt, Ringle and Hair, 2017), the other variables is under 0.02, so no effect can be mentioned. It is seen that the variables of proactivity and innovation, which are among the entrepreneurship orientation dimensions, affect the R-DC at a low level with 0.077 and 0.063, respectively, while risk taking does not have any effect. Similarly, it is observed that the variable of proactivity affects the learning and company characteristic capacity variables at a low level with 0.055 and 0.121, respectively, from the innovation capacity subcomponents, while taking risk has no effect. It is seen that the innovation variable affects the learning capacity at a low level with 0.118, and the company characteristics capacity at a medium level with 0.319.

R^2 value is the value indicating what percentage of the dependent variable the independent variable explains. If this value is 0.25, it is considered weak, if it is 0.50, it is considered medium, and if it is 0.75, it is considered strong (Henseler, Ringle and Sinkovics, 2009; Hair, Ringle, and Sarstedt, 2011). When the R^2 values of the model given in Table 7 are examined, it is seen that the financial performance is 28.7%, the R-DC is 16%, the learning capacity 18,9% and the company characteristics capacity is 40.8%. These findings show that the dependent variable and mediator variables have a low level of explanation because they are below 50%. The adjusted value of R^2 will tend to increase the value of R^2 even if each independent variable to be added to the model has a low correlation with the dependent variable. R^2 adjusted values are also used to avoid such deviations (Garson, 2016, 82).3.7.4.

Testing and Results of Hypotheses: The PLS structural equation model utilizes the bootstrapping method, which is a data-based simulation method in terms of statistical inferences. The Bootstrapping method retrieves random data from the existing dataset (n) times, replaces them, repeats the sample, and thus, in cases where the distribution in the main population is unknown, the standard error can be better estimated by augmenting the sample (Varian, 2005; Sözüer, 2016). In this regard, resampling is performed with 5000 derivative samples in order to better estimate the standard error, and the obtained analysis results (see Appendix B) are presented in Table 8.

Upon examining Table 8, it is seen that innovation and proactivity dimensions, which are among the entrepreneurial orientation dimensions, have significant and positive effects on innovation capacity. There are statistically significant and positive relationships of proactivity with the sub-dimensions of innovation, namely, R&D capacity ($t = 3.618$, $p = 0.000$), learning capacity ($t = 2.775$, $p = 0.006$) and company characteristics capacity ($t = 4.105$, $p = 0.000$). It is seen that there are statistically significant and positive relationships of innovation with R&D capacity, ($t = 2.856$, $p = 0.004$), learning capacity, ($t = 3.781$, $p = 0.000$) and company characteristics capacity, ($t = 6.608$, $p = 0.000$). H1a and H1b sub-hypotheses, among the hypotheses established in this regard, are accepted. No significant relationship is detected between the risk-taking dimension and the innovation capacity dimensions. H1c sub-hypothesis, among the hypotheses established in this regard, is not accepted.

The definition of entrepreneurial orientation in the literature considers the existence of one or more of the entrepreneurial orientation dimensions adequate for the existence of entrepreneurial orientation in an organization (Solmaztürk and Dündar, 2018: 81). In this context, upon making an overall evaluation, it is seen that two of the three dimensions constituting the entrepreneurial orientation have statistically significant and positive relationships with innovation capacity, whereas there is a significant and positive relationship between entrepreneurial orientation and innovation capacity. H1 basic hypothesis, among the hypotheses established in this direction, is accepted. No statistically significant relationships of the innovation capacity sub-dimensions, namely, R&D capacity ($p = 0.190$) and company characteristics capacity ($p = 0.732$) with financial performance are detected. A statistically significant ($p = 0.004$) and positive ($t = 2.900$) relationship is detected between financial performance and learning capacity, as one of the innovation capacity components. The fact that two of the three sub-dimensions that make up the innovation capacity have a statistically insignificant

effect on financial performance while the third one has a significant effect indicates that no statistically significant relationship exists between innovation capacity and financial performance. H4 basic hypothesis, among the hypotheses established in this regard, is not accepted.

No statistically significant relationship (p = 0.377) is found between the innovation dimension, which is one of the entrepreneurial orientation dimensions, and financial performance. Upon examining the t values of innovation and financial performance variables, both values are lower than 1.96 and this indicates that the effect of innovation on financial performance is not significant. The H2a sub-hypothesis, among the hypotheses established in this direction, is not accepted. It is determined that a statistically significant (p = 0.040) but negative (-0.208) correlation exists between financial performance and proactivity, as one of the entrepreneurial orientation dimensions. Of the hypotheses established in this direction; the H2b sub-hypothesis, implying that a statistically significant and positive relationship exists between the proactivity dimension and financial performance, is not accepted. No statistically significant relationship (p = 0.648) is detected between financial performance and risk-taking, as one of the entrepreneurial orientation dimensions. The H2c sub-hypothesis, among the hypotheses established in this respect, is not accepted. The fact that the entrepreneurial orientation dimensions, namely, innovation and risk-taking do not have any significant effect on financial performance, and a significant and negative relationship exists between proactivity and financial performance indicates the existence of a significant and negative relationship between entrepreneurial orientation and financial performance. Among the previously established hypotheses in this regard; the H2 hypothesis, implying that a statistically significant and positive relationship exists between entrepreneurial orientation and financial performance, is not accepted.

Upon examining the moderator effect results presented in Table 8, it is seen that environmental dynamism and environmental competition do not have moderator effects on the relationships of entrepreneurial orientation and innovation capacity with financial performance. Upon examining the t values of these variables, it is seen that these values are lower than 1.95. This situation indicates that environmental factors do not have moderator effects on the relationships of entrepreneurial orientation and innovation capacity with financial performance. Of the hypotheses established in this respect; H5 and H6 basic hypotheses are not accepted. Moreover, no statistically significant relationship is found between financial performance and environmental dynamism, as one of the environmental factors. A statistically significant and negative relationship is found between financial performance and environmental competition, as one of the environmental factors. Upon examining the t values of environmental competition and financial performance variables, these values are higher than 2.58, and this indicates that the effect of environmental competition on financial performance is significant at a 0.01 significance level. Upon examining the effect of control variables on financial performance, a statistically significant and positive relationship of international experience and cash holding with financial performance is detected, whereas no statistically significant relationship of capital structure, firm age, and firm size with financial performance is found.

There are two basic approaches to statistically proving the mediation effect. It is the causality approach and contemporary approach of Baron and Kenny. Baron and Kenny's causality approach is a long-used and highly popular approach. However, the contemporary approach put forward in recent years has brought significant criticisms to the traditional approach (Muller, Jud and Yzerbyt,2005: Preacher et al., 2007; Hayes 2018; Gürbüz, 2019). If Baron and Kenny's causality approach is supported by three different hypotheses (hypotheses regarding the a, b and c pathway), it can be decided whether the mediation variable is present or not. However, this approach is criticized by contemporary approaches. According to contemporary approaches', the primary focus in mediation model analyses is the calculation of indirect impact values and making inferences from the calculated values. Indirect effect according to this approach; The effect of the predictor variable (X) on the mediating variable (M) is the product of the path (a) of the mediating variable (M) versus the effect of the intermediary variable (M) on the outcome variable (Y) (b). According to the modern approach,

mediation is verified if (a.b) is significant as a result of the bootstrap test in the intermediary impact model (Gürbüz, 2019: 54). In this direction, the modern approach method (Gürbüz, Maraşlı and Costigan, 2018; Gürbüz, 2019), which provides more valid and reliable results for the analysis of models, was used in the study.

The results of the analysis results indicating the indirect effect of the entrepreneurial orientation and its dimensions on the financial performance through the innovation capacity are presented in Table 9.

Table 9. Indirect Effects Path Coefficients and t-Statistic Values of The Scale Model

Variables	Original Sample	Sample Mean	Standard Dev.	t Statistic Value	P-Value
Innovation -> R-DC -> Financial Performance	0.025	0.029	0.024	1.026	0.305
Proactivity -> R-DC -> Financial Performance	0.030	0.032	0.025	1.215	0.224
Risk Taking -> R-DC -> Financial Performance	-0.005	-0.005	0.012	0.375	0.708
Innovation -> Learning Capacity -> Financial Performance	0.077	0.079	0.035	2.195	0.028*
Proactivity -> Learning Capacity -> Financial Performance	0.058	0.058	0.029	1.954	0.051
Risk Taking -> Learning Capacity -> Financial Performance	-0.007	-0.008	0.024	0.301	0.763
Innovation -> Company Characteristics Capacity -> Financial Performance	0.017	0.018	0.051	0.331	0.741
Proactivity -> Company Characteristics Capacity -> Financial Performance	0.011	0.010	0.034	0.329	0.742
Risk Taking -> Company Characteristics Capacity -> Financial Performance	0.003	0.001	0.011	0.264	0.792

Note: (*) indicates significance at the 0.01 significance level.

Upon examining Table 9, it is seen that only the innovation dimension affects the financial performance through the learning capacity which is one of the dimensions of the innovation capacity, whereas the other dimensions do not. Upon examining the t values of these variables, it is seen that only the t value of the relationship between (Innovation -> Learning Capacity -> Financial Performance) is higher than 1.96, whereas the t values of the others are lower than 1.96. This situation indicates that the basic hypothesis H3, as one of the previously developed hypotheses, is not accepted.

5. CONCLUSION

The aim of the study is to examine the moderator effect of environmental factors on the relationship among entrepreneurial orientation, innovation capacity, and financial performance. In compliance with this objective, the population of the study consists of manufacturing companies with R&D centers employing 50 and more employees operating in the Istanbul and Kocaeli regions. The survey questionnaire technique is used as a data collection method in the research study. SPSS and SmartPLS software are used in the analysis of the obtained data. Since it is crucial for the continuation of the study, prior to analyzing the research model, reliability and validity analyses of the variables included

in the study are performed. Within the scope of reliability analysis; "Cronbach's Alpha and Composite Reliability values" are used to determine internal consistency reliability. In order to test the validity of the scales, both convergent validity and discriminant validity analyses are performed. After the reliability and validity conditions are fulfilled, the SmartPLS software is used to test the hypotheses which are developed in compliance with the literature as well as general arguments of the related theory. In order to evaluate the significance of the PLS path coefficients, t-statistics values are calculated by obtaining 5000 subsamples from the sample with Bootstrapping method.

According to the results of the analysis, it is determined that innovation and proactivity, which are among the entrepreneurial orientation dimensions, have a significant and positive effect on innovation capacity. This situation indicates that innovation activities are driven by innovation and proactivity, which are the dimensions of entrepreneurial orientation. No significant relationship is found between the risk-taking dimension and the innovation capacity dimensions. The definition of entrepreneurial orientation in the literature considers the existence of one or more of the entrepreneurial orientation dimensions sufficient for the presence of entrepreneurial orientation in an organization (Solmaztürk and Dündar, 2018: 81). In this context, upon making an overall evaluation, the facts that two of the three dimensions that constitute the entrepreneurial orientation are statistically significant and positive, and that the third one is not significant indicate the existence of a significant and positive relationship between entrepreneurial orientation and innovation capacity. These results of the study, Ribau, Moreira and Raposo, (2017), Omar, Aris and Nazri (2016), Noor and Aljanabi (2015), and Etriya, Scholten, Wubben and Omta (2012) supports the results of the study. According to these results, it can be said that an improvement in the dimensions of entrepreneurship orientation has a positive effect on innovation capacity. Upon examining the relationship between innovation capacity sub-dimensions and financial performance, no statistically significant effects of R&D capacity and company characteristics capacity on financial performance are detected. Learning capacity, as one of the innovation capacity components, is detected to have a statistically significant and positive effect on financial performance. Empirical studies in the literature [Rajapathirana and Hui (2018), Naala (2017), Yuan, Shin, He and Kim (2016), Aini, Shen, Musdaieq and Handayani (2013), Guan and Ma (2003)] in general, it is seen that there is a positive relationship between innovation capacity and financial performance. According to the results of this study, the insignificant effect of two of the three sub-dimensions constituting innovation capacity on financial performance indicates that no statistically significant relationship exists between innovation capacity and financial performance. The results of the study of Kafetzopoulos and Psomas (2015) support the results of the study. Upon examining the effect of entrepreneurial orientation and its sub-dimensions on financial performance through innovation capacity, it is determined that only the innovation dimension affects financial performance through learning capacity, while the other dimensions do not.

Surprisingly, although previous studies have emphasized the importance of innovation from entrepreneurial orientation dimensions for financial performance, the data in the study did not support this hypothesis. According to the results of the study, no statistically significant relationship is detected between the innovation dimension, which is one of the entrepreneurial orientation dimensions, and financial performance. This report was published by Alpkan, Ergün, Bulut and Yılmaz (2005), Kraus, Rigtering, Hughes and Hosman (2012), Petrovic, Vukotic, Anicic and Zakic (2015) supports the results of the study. In previous studies, the importance of proactivity and its impact on financial performance have been emphasized in both theoretical discussions and empirical research. Accordingly, Rezaei and Ortt (2018), Fadda (2018), Mason (2015), Muzaffar (2011), Özer (2011) and Alpkan, Ergün, Bulut and Yılmaz (2005), found that proactivity is effective on financial performance, and this effect is positive. Contrary to these studies, the results of the study that determined that a statistically significant but negative relationship exists between proactivity and financial performance. In previous studies, the importance of risk taking and its impact on financial performance were reviewed by Rezaei and Ortt (2018), Magaji (2017), Aminu (2016), Filser and Eggers (2014), Altuntaş and Dönmez (2010) and Rauch et al. (2009). The direction of this effect is positive, Mason, Floreani, Miani, Beltrame and Cappelletto (2015), Koe (2013) and Kroeger (2007)

's studies. Contrary to these studies, according to the results of the research, statistically insignificant relationship is detected between the risk-taking dimension and financial performance.

Although the previous studies in the literature mostly emphasized the importance of the dimensions of entrepreneurial orientation for financial performance, innovation, and proactivity dimensions, the data in this study do not comply with these results. The following may account for this fact;

As asserted by Kemelgor (2002), countries tend to differentiate from each other in terms of culture and entrepreneurship. The questions regarding the scale about entrepreneurial orientation within the scope of the research are generated based on the scale developed by Li, Jiang, Pei and Jiang (2017). This situation may have caused different responses to the same questions as the thoughts and opinions of the company executives within the scope of the research and their cultural structures are different about innovation.

Especially in the evaluation of the questions on financial performance, the participants are requested to respond by comparing the last three years with the previous years. It can be claimed that stagflation risks that occurred in Türkiye's economy along with the recession currency crisis experienced as of August 2018 may have accounted for this case. Likewise, in times of economic recession, companies will not spend enough for their R&D expenditures and they will experience delays in introducing and promoting new products. Likewise, in times of economic recession, insufficient level of the companies' R&D expenses and delays experienced in production and promotion of new products may also pose another reason.

The literature has extensively investigated the moderator effect of environmental factors on the relationship between entrepreneurial orientation and financial performance. In the studies on the moderator effect of environmental factors on the relationship between entrepreneurial orientation, entrepreneurial orientation dimensions and financial performance, they found that generally environmental factors positively affect the direction of the relationship between entrepreneurial orientation, entrepreneurial orientation dimensions and financial performance.

According to the moderator effect results of the study, it was determined that environmental dynamism and environmental competitiveness did not have a moderator effect on the relationship between entrepreneurial orientation, innovation capacity and financial performance, unlike the studies in the literature. A statistically significant and negative relationship is found in the relationship between financial performance and environmental competition, as one of the environmental factors. Upon examining the effects of control variables on financial performance, a statistically significant and positive relationship of international experience and cash holding with financial performance is detected, whereas no statistically significant relationship of capital structure, firm age, and firm size with financial performance exists.

The following may be considered as the reasons for the lack of a statistically significant and positive relationship between innovation capacity and financial performance;

Questions regarding innovation capacity are generated on the basis of the scale developed by Oura, Zilber and Lopes (2016) for SMEs in Brazil. This situation may have caused different responses given to the same questions, since the opinions and views of the company executives, as well as the cultural structures, economic infrastructures, and power of the countries, tend to differ within the scope of the research on the innovation capacity.

The stagflation risk, along with the foreign currency crisis experienced as of August 2018 in Türkiye, can be claimed to be effective. Because, as stated in Koellinger (2008), the success or failure of innovation capacity depends solely on the technological infrastructure of the companies. The strong technological infrastructure of a company is mainly based on the economic situation in which it strives for success. If the economic situation in which it strives is stable and sound, the technological infrastructure of the company would also become strong and consistent. On the contrary, the

company would endeavor to maintain its current position in the market instead of acquiring new technologies, as it would be anxious to sustain its presence.

The third reason may arise from the fact that companies have different strengths and weaknesses in terms of technology-based core capabilities, as stated by Wang, Lu and Chen (2008).

The fourth reason involves the fact that the expenditures made by the companies for their R&D investments may have been effective.

Policy and Managerial Implications: Although the results of the study show that the relationship between innovation and financial performance is not statistically significant, the fact that innovation has a significant and positive effect on R&D, learning capacity and characteristics of the enterprise, and again between proactivity and innovation capacity sub-dimensions of entrepreneurship orientation. Having a statistically significant relationship indirectly affects financial performance positively. Therefore, companies operating in Turkish economy should make innovation concept a strategic target in order to keep up with change in the long term, to maintain their competitive advantage and to survive. It is considered that reconsidering its current R&D and innovation strategies would be beneficial for Türkiye. Because this rate is only around 0.96%, even though R&D expenditures have increased compared to previous years. In developed countries, this rate is around 3-4%. This shows that Türkiye lags far behind developed countries in terms of R&D expenditures. Firms operating in Turkish economy, especially the private sector, need to catch up with technology and consolidate their R&D infrastructure in order to compete with their competitors in global market. Likewise, in order for Türkiye to be included in the challenge at the right place and at the right time, it needs to conduct analysis studies on innovation areas with strategic importance and determine with which areas Türkiye can participate in the challenge. It is considered that it will be ensured that the companies focus on innovation and give the necessary importance by sharing the findings of the study especially with the business managers participating in the study. In the same way, it is considered that the sharing of the study findings with policy makers, government administrators and decision makers ensure that incentive programs are evaluated according to these in terms of encouraging companies in innovation concept. Thus, considering the benefits of innovation to productivity increase, export increase, growth and development, with the benefit of company managers and policy makers; the necessity of the importance given to innovation in terms of policy makers and political authority is emphasized. In the case of focusing on innovation, reducing the current account deficit, which is the main problem of the economy, reducing dependence on external shocks, reducing foreign debt will bring along sustainable rapid economic growth.

Future Research

a) The research study is conducted on companies with 50 or more employees and R&D centers operating in Istanbul and Kocaeli regions. Therefore, it is recommended to conduct the research in different provinces to generalize the results of the study.

b) In order for the research study to acquire universal characteristics, the comparison of the development levels of different countries is recommended.

c) It is recommended to include other variables in order to achieve a more comprehensive research study.

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(APPENDIX A)

Table 6. Fornell-Larcker Discriminant Validity and Correlation Values

	R-DC	Fin. Per.	Firm Age	Cash Hold.	Pro.	Risk-Taking	Cap. Str.	Int. Exp.	Innov.	Env. Dyn. Mod. Eff. LC	Env. Dyn. Mod. Eff. R-DC	Env. Dyn. Mod. Eff. CCC	Env. Comp. Mod. Eff. R-DC	Env. Comp. Mod. Eff. LC	Env. Comp. Mod. Eff. CCC	Env. Dyn.	Env. Comp.	LC	Firm Size	CCC
R-DC	**0.858**																			
Financial Performance	0.165	**0.904**																		
Firm Age	-0.035	0.104	**1.000**																	
Cash Holding	0.082	0.242	0.180	**0.929**																
Proactivity	0.327	-0.052	-0.014	0.108	**0.861**															
Risk-Taking	0.142	-0.028	-0.023	0.048	0.452	**0.928**														
Capital Structure	0.203	0.200	0.169	0.047	0.001	-0.092	**0.920**													
International Experience	0.066	0.229	0.522	0.217	0.137	-0.031	0.156	**1.000**												
Innovation	0.299	0.090	-0.033	0.124	0.245	0.236	-0.021	-0.012	**0.926**											
Environmental Dynamism Moderator Effect LC	-0.197	-0.171	0.026	-0.196	-0.289	-0.179	-0.135	0.015	-0.301	**0.721**										
Environmental Dynamism Moderator Effect R-DC	-0.005	-0.198	0.231	-0.107	-0.054	-0.117	-0.114	0.158	-0.108	0.225	**0.633**									

Environmental Dynamism Moderator Effect CCC	-0.143	-0.173	0.216	-0.049	-0.104	-0.189	-0.159	0.172	-0.165	0.365	0.593	**0.681**						
Environmental Dynamism Moderator Effect R-DC	-0.116	-0.198	0.121	0.035	-0.076	-0.191	-0.174	0.059	-0.184	0.438	0.579	0.495	**0.529**					
Environmental Dynamism Moderator Effect LC	0.052	-0.211	0.030	-0.223	-0.107	-0.142	-0.042	0.003	-0.127	0.598	0.451	0.232	0.429	**0.635**				
Environmental Dynamism Moderator Effect CCC	-0.082	-0.110	0.065	-0.111	-0.194	-0.169	-0.161	-0.002	-0.230	0.594	0.297	0.255	0.521	0.464	**1.000**			
Environmental Dynamism	0.060	-0.183	-0.031	-0.081	0.041	0.183	-0.049	-0.131	0.198	0.185	0.192	0.122	0.219	0.299	0.208	**0.767**		
Environmental Competition	0.012	-0.230	0.123	0.117	0.016	0.126	-0.057	0.057	0.212	0.072	0.267	0.151	0.183	0.177	0.121	0.452	**0.809**	
Learning Capacity	0.437	0.247	-0.019	0.234	0.305	0.155	0.045	0.067	0.374	-0.365	-0.190	-0.257	-0.300	-0.233	-0.245	-0.027	0.126	**0.896**
Firm Size	-0.060	0.111	0.313	0.189	-0.008	0.059	-0.005	0.221	0.176	-0.125	0.000	0.101	0.035	-0.090	0.009	-0.025	0.157	0.168	**1.000**
Company Characteristics Capacity	0.472	0.124	0.006	0.298	0.449	0.321	0.101	0.187	0.546	-0.303	-0.092	-0.229	-0.087	-0.089	-0.280	0.112	0.176	0.499	0.115	**0.750**

(APPENDIX B)

Table 8. Path Coefficients t-Statistic Values of The Scale Models

	Original Sample	Sample Mean	Standard Dev.	t Statistic Value	P Value
Innovation -> R-DC	0.239	0.242	0.084	2.856	0.004*
Innovation -> Learning Capacity	0.322	0.321	0.085	3.781	0.000*
Innovation -> Company Characteristics Capacity	0.453	0.454	0.069	6.608	0.000*
Proactivity -> R-DC	0.289	0.291	0.080	3.618	0.000*
Proactivity -> Learning Capacity	0.239	0.236	0.086	2.775	0.006*
Proactivity -> Company Characteristics Capacity	0.304	0.306	0.074	4.105	0.000*
Risk-Taking -> R-DC	-0.045	-0.048	0.084	0.541	0.589
Risk-Taking -> Learning Capacity	-0.030	-0.032	0.090	0.334	0.739
Risk-Taking -> Company Characteristics Capacity	0.076	0.078	0.063	1.209	0.227
R-DC -> Financial Performance	0.090	0.109	0.086	1.050	0.294
Firm Age -> Financial Performance	-0.015	0.014	0.091	0.162	0.872
Cash Holding -> Financial Performance	0.173	0.157	0.087	1.976	0.048**
Proactivity -> R-DC	0.289	0.292	0.081	3.580	0.000*
Proactivity -> Financial Performance	-0.208	-0.169	0.101	2.057	0.040**
Proactivity -> Learning Capacity	0.239	0.241	0.085	2.809	0.005*
Proactivity -> Company Characteristics Capacity	0.304	0.306	0.075	4.034	0.000*
Risk Taking -> R-DC	-0.045	-0.047	0.083	0.543	0.587
Risk-Taking -> Financial Performance	0.038	0.024	0.083	0.457	0.648
Risk Taking -> Learning Capacity	-0.030	-0.032	0.090	0.332	0.740
Risk-Taking -> Company Characteristics Capacity	0.077	0.078	0.062	1.227	0.220
Capital Structure -> Financial Performance	0.115	0.112	0.067	1.708	0.088
International Experience -> Financial Performance	0.228	0.202	0.097	2.345	0.019*
Innovation -> R-DC	0.239	0.243	0.085	2.826	0.005*
Innovation -> Financial Performance	0.075	0.054	0.084	0.883	0.377
Innovation -> Learning Capacity	0.322	0.322	0.084	3.840	0.000*
Innovation -> Company Characteristics Capacity	0.453	0.455	0.069	6.564	0.000*
Environmental Dynamism Moderator Effect LC -> Financial Performance	-0.009	-0.040	0.140	0.063	0.950
Environmental Competition Moderator Effect R-DC -> Financial Performance	-0.022	0.003	0.140	0.156	0.876
Environmental Competition Moderator Effect LC -> Financial Performance	-0.067	-0.062	0.136	0.487	0.626
Environmental Competition Moderator Effect CCC -> Financial Performance	-0.033	-0.093	0.189	0.176	0.860
Environmental Dynamism Moderator Effect R-DC -> Financial Performance	-0.086	-0.096	0.166	0.516	0.606

Environmental Dynamism Moderator Effect CCC -> Financial Performance	0.056	0.075	0.145	0.383	0.701
Environmental Dynamism -> Financial Performance	0.013	-0.004	0.098	0.128	0.898
Environmental Competition-> Financial Performance	-0.273	-0.228	0.101	2.711	0.007*
Learning Capacity -> Financial Performance	0.192	0.185	0.097	1.986	0.047**
Firm Size -> Financial Performance	0.036	0.018	0.087	0.420	0.675
Company Characteristics Capacity -> Financial Performance	-0.048	-0.049	0.118	0.404	0.687

Note: (*) and (**) indicate significance at 0.01 and 0.05 significance levels, respectively.

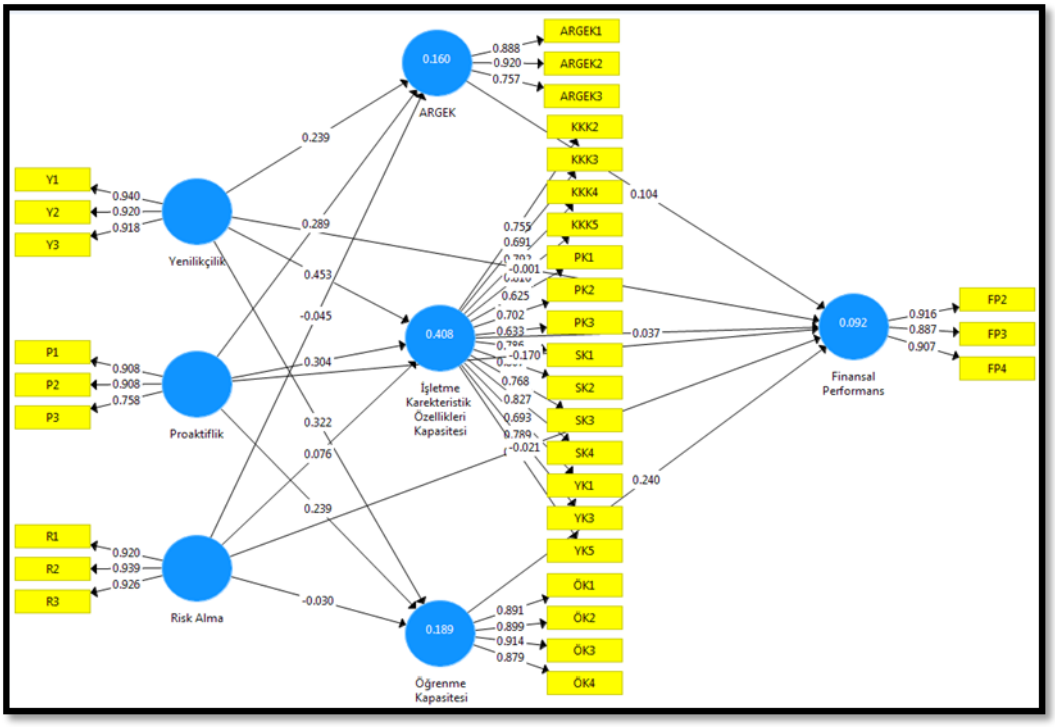

Figure 9. PSL-SEM Structural Equation Model Diagram on the Intermediary Role of Innovation Capacity in the Relationship Between Entrepreneurial Orientation and Financial Performance (Path Analysis)

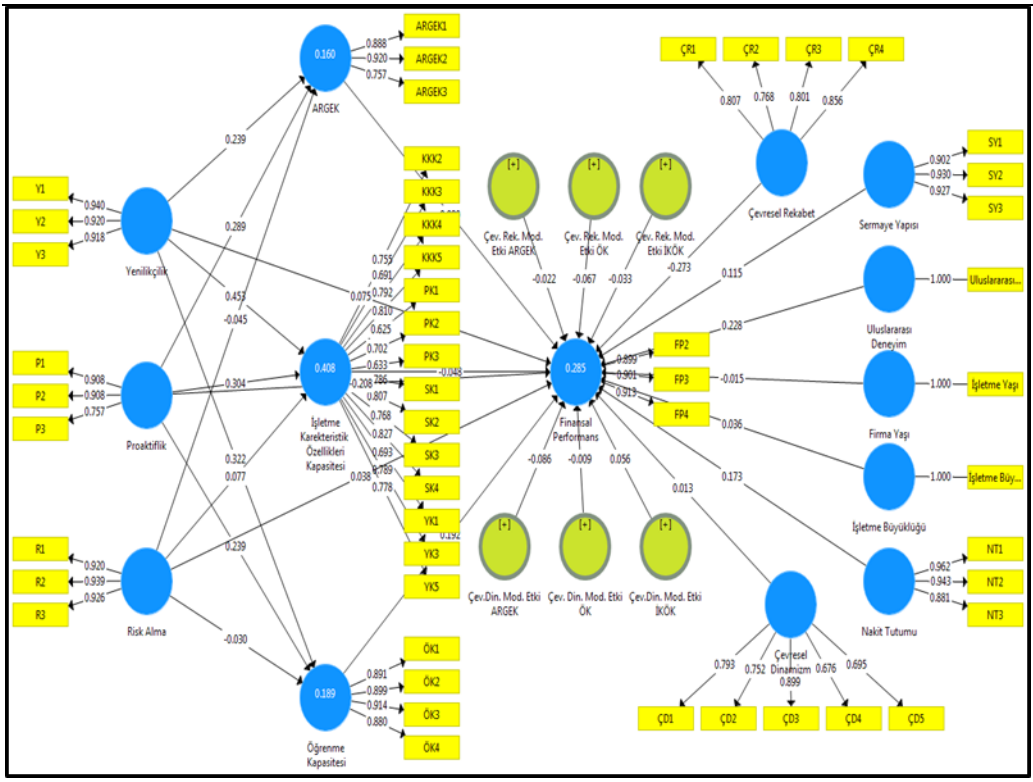

Figure 10. PSL-SEM Structural Equation Model Diagram for the General Model (Path Analysis)