

INVESTOR TRUST AND STOCK MARKET PARTICIPATION: EVIDENCE FROM BIST

Ercan ÖZEN¹

DOI: 10.2478/tjeb-2021-0001

Developed financial markets are a necessary element for a healthy economy. A developed financial market also requires a well-functioning technical and legal infrastructure, financial institutions, institutional investors, and a sufficient number of individual investors prone to trading in the markets. More investors with more funds in exchanges, one of the essential elements of financial markets, contribute positively to the stock market and markets. The purpose of this study is to determine the overall level of trust of individual investors in the companies they invest in in the Stock Exchange Istanbul (BIST), to determine the level of relationship between the antecedents of the concept of trust and trustworthiness, cognitive and affective trust. To determine the level of trust that investors invest in stocks of the companies listed in Borsa İstanbul, a survey was conducted with 645 investors in Turkey using the convenience sampling method. The data obtained were analyzed using the structural equation model (SEM) in the Smart-PLS program. According to the findings, it is understood that the overall level of confidence of investors is low. The antecedent trust that has the most significant impact on listed companies' trustworthiness is concern and benevolence (0.460). There is a strong link between trustworthiness and cognitive and affective trust. The findings suggest that policymakers need to create and implement effective policies to increase investor trust.

Keywords: Trust, Trustworthiness, Borsa Istanbul, Individual Investor, Structural Equation Model-SEM, Smart-PLS

JEL Classification: D53, O16, G11, G23

¹ Department of Banking and Finance, Faculty of Applied Sciences, University of Uşak, Turkey

This paper is extended and renewed version of the paper was presented in III. International Applied Social Sciences Congress, held in Çeşme between 2 and 4 April 2019.

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

1. Introduction

Production potential and actual production play an important role in increasing the well-being of societies. Capital is one of the most critical inputs in increasing production potential. Businesses provide funds to increase their production power with equity or borrowing. Raising capital through going public is also an essential source of financing. A well-functioning equity market is required for businesses to find resources through going public (Yeşildağ & Kaderli, 2013). More individuals opening investment accounts in brokerage firms and invest by brokerage firms will allow significant amounts of funds to accumulate in financial markets, and financial markets will grow (Mayer, 2008; Calderón et al, 2002). Thus, as emphasized by many studies (Levine, 1997; Vurur & Özen, 2013), increasing the amount of savings in markets will boost economic growth. Maslow (1943) stated that human needs in the hierarchy of needs are; (i) basic bodily gratifications, (ii) safety needs, (iii) affection and acceptance, (iv) feelings of adequacy and self-esteem, (v) self-actualization. In this case, being safe and trusting is the priority of people's vital needs. People move away from environments, people, or things they do not count. Boz and Özen (2019) state that individuals with high-risk perceptions prefer not to use financial products. Businesses will be successful in communicating with investors, providing accurate and timely information about their activities and profitability, not manipulating their earnings, and showing good management will increase investors' trust in these companies. However, positive and negative developments in macroeconomic factors also affect investor trust (Ng et al, 2016).

Modern Portfolio Theory emphasizes that investors can rationally invest in securities by an appropriate combination of risk returns. Accordingly, it can be expected that individuals will actively involve in the markets in line with risk-return optimization, increase their investments and join new investors in the markets. However, market experiences show that risk-return optimization does not contribute adequately to market involvement. Behavioural finance studies show that individuals exhibit risk-averse behaviour when making investment decisions. So, Investors react to a loss more remarkable than the gain of the same amount (Tufan, 2020). Because the possibility of loss leads individuals to avoid taking risks. Stock markets are considered riskier than they also show investors to move away from investing in stocks.

Motivation of the Study: As a developing country, Turkey needs more funds. The country's population, which was 71,517,100 in 2008, reached 83,154,997 at the beginning of 2020. In contrast, the number of equity investors reached 1,203,438 at the beginning of 2020, up from 989,853 in 2008. The investor/population ratio was 1.3841% in 2008 and 1.4472% by the beginning of 2020. According to these data, there is no significant progress in the number of stock investors in the last 12-year period.

On the other hand, according to the World Values Survey, the level of social trust in Turkey has been quite low in recent years, such as 10% -11%. It is believed that this low rate of

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

social trust may be an obstacle for investors to enter the stock market. One of the most critical factors that affect investors' trust in the stock market is the disclosure of accurate, reliable and transparent information about the activities of businesses. Abuses that business managers can do in reporting or in the process of transferring operating earnings to investors are also very important. Because of such situations, it is necessary to measure the level of trust of investor in companies listed on Borsa İstanbul (BIST).

As seen from the literature review, no study assesses investor trust in stock market companies. This study will fill the literature gap about trust relations between investors and companies listed in the stock market. By analysing the dimensions that may impact trust, it will also be able to identify the behaviour patterns that Turkish investors show when investing in stocks. In this way, policies that support more individuals as investors in the stock market can be produced.

This study investigates the relationship between the level of trust that individual stock investors in Turkey have in the companies they invest in and the dimensions of trust. The theoretical framework, literature, purpose, methods and findings, and the conclusion section follow the study's introduction.

2. Literature review

Studies in the literature show that the concept of trust has an important place in economic life. Studies on trust in the economic field have spread to a large scale, from trust in the state to determining individual preferences as well as delivery in public services (Gümüş Özuyar, 2019). However, studies related to the trust of investors and companies listed in BIST are pretty limited. Ng et al. (2016) report that the concept of trust is an element of social capital in terms of the development of capital markets. Investor trust is declining due to investor protection problems arising from legal regulations, which negatively affects equity investments (Ng et al., 2016; Guiso et al., 2008) also found in their study that only investors with high levels of trust invest in equity markets. Kara et al. (2009) note that in an economy where trust is growing, the decision-making process of businesses and investors will accelerate. Creating trust can be achieved by ensuring that institutions fully and timely fulfill their obligations. First, the state's fulfillment of its commitments is the first condition for building trust in the markets. Temizel & Coşkun (2010) and Noja & Cristea (2017) state that quality communication between companies and investors will increase investor trust. Communication between investors and companies is established in three forms (Temizel & Coşkun, 2010). These are (i) information that must be made legally, (ii) optional disclosures, and (iii) information that investors receive from sources other than companies.

Some studies indicate that trust growth has a positive impact on capital markets. Georgarakos & Pasini (2011) found that a positive change in trust level in countries with high

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

trust levels has a substantial effect on participation in stock markets. There is little study on investor trust and holding stocks. The work of Georgarakos & Pasini (2011) is one of the first in this field. In their study, the authors investigated the relationship between the level of “trust and sociability” of households over 50 in 10 European countries and equity investments. The authors found that in countries with high trust, the trend towards investing in stocks is twice as strong as in others. Guiso et al. (2008) determined that the increase in trust level increased share stock investments. According to Camilleri et al. (2018), the market prices of companies whose dividend policy is not liked are negatively affected, and therefore the level of investor trust is falling. Due to the loss of trust, investors also sell the stocks of such companies. Investors who do not trust others or live in countries with low levels of trust perception avoid trading on exchanges because they find it highly likely to be deceived. If investor trust is gained, there will be progress in the development of the capital market.

Sekhon et al. (2014) see that trust is a vital element in marketing activities. According to Sekhon et al. (2014), the fulfillment of financial services is more difficult due to the product diversity of purchasing processes and the complexity of transactions.

The authors identified that the trustworthiness between the customer and the institutions in financial services marketing are expertise and competence, communication, concern and benevolence, shared values, and integrity and consistency.

3. Method and Findings

The purpose of the study is (i) to measure the level of financial investors trust in listed companies in BIST, (ii) to determine the effect of dimensions of trustworthiness (expertise and competence, integrity and consistency, communication, shared values and concern and benevolence) on the trustworthiness of business and effect of the trustworthiness on cognitive and affective trust.

The study also sought to determine the possible effects of various categorical characteristics of investors on trust. The data of the study consists of four main dimensions that were obtained by the survey technique. In the first dimension, investors' characteristics are determined. In other dimensions, there are scales with four items to determine the factors affecting trust and trust.

In the study, the scale, developed by Sekhon et al. (2014), was translated into Turkish to obtain data. The trust scale consists of 8 dimensions and 29 items. Eight dimensions created by Sekhon et al. (2014) consist of Expertise and Competence (EC), Integrity and Consistency (IC), Communication (COM, Shared Values (SV), Concern and Benevolence (CB), Trustworthiness (TR), Cognitive Trust (CT) and Affective Trust (AT).

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

Data from the research was obtained electronically by reaching investor groups in social media environments, which are open to all investors, such as Twitter, LinkedIn, Facebook, employees of different financial institutions, and customers of financial institutions such as banks. Therefore, the data is horizontal cross-section data. On all scales, the scores were given to expressions increase, while the positivity towards the scale increases

The research was conducted on 645 investors. 79,7% of investors are male, and 20,3% are female investors. Age distributions of investors were also examined, and it was determined that the age-oriented mod class was 31-45 years old with 54,6%. The proportion of investors with an age distribution of 18-30 was 21,2%, and the ratio of investors with an age distribution of 46 and older was 23,7%. The mod class for the education of participants constituted 59,7% of the University, while the proportion of investors doing postgraduate studies was 23,9%. The ratio of investors with high school and primary education graduates is 16,4%. The monthly salary of investors was examined. It was determined that 42,2% of investors had a salary from 2000-5000 Turkish Lira (TRY), while the proportion of investors with income from more than 5000 TRY was calculated as 46,8%. The proportion of those whose monthly salary is less than 2019 TRY is 11%.

It was determined that 16,9% of investors traded on the BIST daily, while 16,1% traded 1-2 times weekly. The proportion of those who do not invest in the stock market or trade 1-2 times a year is calculated as 40,5%. Investors were asked to rate their earnings from stock market investments between 1 and 5, and the proportion of those who had a rating of 5 was calculated as 5%. The proportion of investors with a satisfaction rating of 4 was 12,4%, and the proportion of those with three was 29,1%. Accordingly, it seems that investors, on average, are not happy with their investment in stocks. As an investment alternative, the proportion of investors who see the stock market in the first place was 32,7%, and the proportion of investors who see it in the second place was 22,8%. The results obtained are given in Table 1.

Table 2 shows investors' responses to each item on the trust scale. The values in the table show that investors have low trust in almost all things. Of the 29 items on the scale, the value of the average scores of only four items are above three, and the average scores of 25 items are less than 3. Accordingly, it can be said that the level of trust of investors in companies traded on the stock market is shallow.

Table 1. Characteristics and distributions of investors

Variable		N	%	Variable	N	%	
Gender	Male	514	79,7	Education	Primary education	15	2,3
	Female	131	20,3		High school	91	14,1
Salary	0-2019	71	11,0		Undergraduate	385	59,7
	2020-5000	272	42,2		Postgraduate	154	23,9
	5001-8000	186	28,8		None	114	17,7

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

Variable	N	%	Variable	N	%		
(Turkish Lira) ¹	8001+	116	18,0	1-2 times yearly	147	22,8	
	1	207	32,6	Your frequency of trading on the BIST	1-2 times monthly	171	26,5
Earnings satisfaction score of stock investment	2	132	20,8		1-2 times weekly	104	16,1
	3	185	29,1		Daily	109	16,9
	4	79	12,4		18-30	137	21,2
	5	32	5,0	Age	31-45	352	54,6
Which priority is your investment in the stock market?	First	211	32,7		46-60	145	22,5
	Second	147	22,8		61+	11	1,2
	Third	143	22,2				
	Fourth	88	13,6				
	None	56	8,7				

Source: Compiled by the author

Table 2. Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
EC1	645	3,1767	1,21319	-,274	,096	-,954	,192
EC2	645	2,6558	1,20015	,173	,096	-1,101	,192
EC3	645	3,1426	1,12072	-,250	,096	-,892	,192
EC4	645	3,2233	1,11445	-,496	,096	-,587	,192
IC1	645	2,6465	1,12109	,204	,096	-,781	,192
IC2	645	2,5767	1,18966	,264	,096	-1,019	,192
IC3	645	2,5473	1,08763	,129	,096	-,726	,192
IC4	645	2,7163	1,12086	,091	,096	-,945	,192
COM1	645	2,9333	1,15971	-,121	,096	-,916	,192
COM2	645	2,6868	1,18265	,134	,096	-1,058	,192
COM3	645	2,8388	1,18297	-,063	,096	-1,054	,192
COM4	645	2,6233	1,18574	,195	,096	-,969	,192
SV1	645	3,1829	1,14643	-,356	,096	-,748	,192
SV2	645	2,4016	1,03585	,450	,096	-,430	,192
SV3	645	2,2977	1,05798	,638	,096	-,202	,192
CB1	645	1,9845	1,06311	,910	,096	,037	,192
CB2	645	2,2186	1,16108	,725	,096	-,417	,192
CB3	645	2,5132	1,14149	,222	,096	-,891	,192
CB4	645	2,8961	1,30814	-,087	,096	-1,247	,192
TR1	645	2,3752	1,12372	,481	,096	-,641	,192
TR2	645	2,6682	1,19067	,181	,096	-,957	,192
TR3	645	2,7736	1,21005	,040	,096	-1,132	,192
TR4	645	2,4248	1,13909	,499	,096	-,644	,192
CT1	645	2,4465	1,10012	,375	,096	-,740	,192
CT2	645	2,2930	1,09177	,519	,096	-,673	,192
CT3	645	2,2729	1,07048	,438	,096	-,645	,192
AT1	645	2,3705	1,05768	,434	,096	-,425	,192
AT2	645	2,2496	1,06235	,666	,096	-,247	,192
AT3	645	2,3690	1,11049	,531	,096	-,552	,192
Valid N (listwise)	645						

Source: Compiled by the author

¹ 1 USD= 5,95TRY (as of 2019-31 Dec.)

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

At the next stage of the study, the model to determine the investors' trust in companies listed in BIST, to assess the effect of trustworthiness on antecedents of reliability, the impact of trustworthiness on cognitive faith and affective trust was tested with partial least squares structural equity modeling (PLS-SEM).

Partial Least Squares Structural Equality Modeling

Smart-PLS software is one of the data analysis tools that has started to be used frequently in Social Sciences in recent years. The logic of analysis is based on PLS-SEM. PLS-SEM is called variance-based structural equality modeling and uses the least-squares method, such as regression, as the prediction method. It is based on the estimation of relationship coefficients, which maximizes the R^2 value of the dependent variable. In other words, the dependent variable is a method written to minimize the variance of error terms while maximizing the described variance of the latent variable (Hair et al., 2016). The method does not require more extensive sampling as the model becomes complex and the estimated number of parameters increases, as in covariance-based structural equality modeling. The method also does not require any distribution assumptions in structural equality modeling, creating samples from the data set based on the bootstrap technique. It is a nonparametric method that deals with the parameters obtained from each piece (Civelek, 2018).

SEM models have two types of variables. One of them is endogenous variables and has values determined entirely by other independent variables in the system. Dependent variables in the system are called exogenous variables. They are exogenous extrinsic variables and are not affected by other variables in the model. SEM offers two different models: internal and external models. The internal model shows the relationship between endogenous and exogenous variables, while the external model presents hidden variables and their observable indicators. The internal model shows the structural model, and the external model shows the measurement model. The measurement model specifies the relationship between partial Least Squares structural equality modeling (PLS-SEM) and measurements. Suppose the direction of the relationship is from the structure to the criteria. In that case, reflective height means that formative measurement is being made if it is from the requirements to the system. PLS-SEM's classical SEM applications do not have congruence values calculated but are interpreted according to some congruence index values (Çakır, 2019). Model validity and compliance in PLS-YEM, factor loads, path coefficients are evaluated using R^2 , f^2 , Q^2 statistics (Kline, 2011).

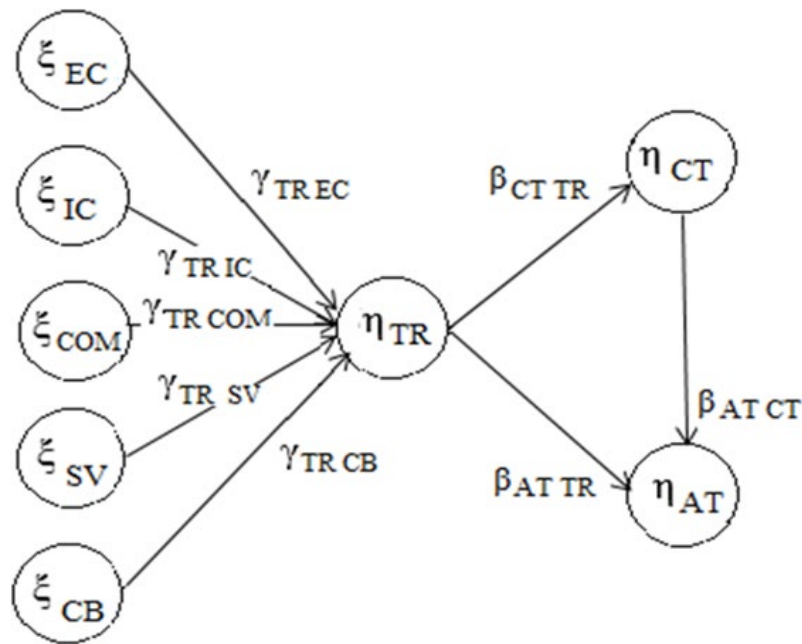
Research model and hypotheses

The research model is based on research variables and cause-and-effect relationships in theory. The variables in the research model are; (i) EC: Expertise and Competence, (ii) IC: Integrity and Consistency, (iii) COM: Communications, (iv) SV: Shared Values, (v) CB: Concern and Benevolence, (vi) TR: Organizational Trustworthiness, (vii) CT: Cognitive Trust and (viii) AT: Affective Trust.

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

In the study, a single structural model was tested between latent variables. A model showing the effects between variables is shown in Figure 1. The hypotheses below will be tested to investigate the impact. Definitions of factors included in the research model are also provided below.



Source: Compiled by the author

Figure 1. Research Model

The study investigated whether investors trust listed companies. Here, the investor as "Trustor" is the party in the role of trusting or not trusting. Companies listed in BIST are the party that wants to be charged in the mutual relationship as "Trustee."

Organisational Trustworthiness (OT) and Trust

The concepts of Trust and trustworthiness are often used interchangeably. For this reason, these two concepts need to be defined separately. "Trustworthiness" is a trustee feature, which is explained by previous behaviours or expressed or implied values. Trust is a set of beliefs that one party has about the behaviour and attitudes of the others (Sekhon et al., 2014).

The distinction between the two is essential; trust is essentially a belief held by the trustor in a relationship, whereas trustworthiness can be seen as an element of reputation projected by the trustee (Sekhon et al., 2014).

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

In this case, investors' trust is formed as a result of the behaviour and attitudes put forth by enterprises trading in the stock markets. On the other hand, trustworthiness is a feature of the business that it has as a result of policies that it has implemented from the past to the present. The trusting side is thinking of being vulnerable and being confident. An inexperienced investor wants to feel safe from the actions of businesses in the stock market. In this case, it can be said that there is a linear causal relationship between trust and trustworthiness.

Mc Allister (1995) treated the trust in two forms, Cognitive and Affective trust:

Cognitive Trust (CT)

Cognitive trust depends on various levels of knowledge and belief about others and refers to an individual's conscious choice. This consciousness is closely related to competence, reliability, and dependability (Sekhon et al., 2014; McAllister, 1995).

If a business has engaged in satisfactory activities with its past financial success, market share, investor relations, appropriate growth, and dividend policies, the investor will trust it. This trust is related to the investor's sense of confidence gained from the past behaviour of the business.

Affective Trust (AT):

Affective trust depends on the emotional bonds between trustor and trustee (Sekhon et al., 2014). Cognitive trust is formed based on rational choices, while affective trust is based on social psychology, and repeated interaction between the two sides eventually occurs. The Affective trust is firmly rooted in social psychology and emphasizes the importance of taking trustor's interests from the heart, and the suggestion manifests itself because of repeated interactions (Williams, 2001). Also, emotional trust arises as a degree of emotional connection between trustor and trustee (Sekhon et al., 2014).

Antecedents of Trustworthiness can be called as (i) Expertise and Competence (EC), (ii) Integrity and Consistency (IC), (iii) Communications (COM), (iv) Shared Values (SV) and (v) Concern and Benevolence (CB).

EC: A trustee must ensure that they can deliver or deliver solutions to what was promised to the trustor, to willing to accept vulnerability by the trustor. In this case, investors need to believe that businesses, listed on the stock markets, can succeed in management, have the skills to make high profits and distribute fair dividend. Therefore, stock investments can increase.

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

IC: Integrity and consistency mean that duties fulfilled in the same way as the promised by the trustee. Investors should see that practices carried out by businesses are consistent with their previous disclosures. If this condition is met, investors believe that the company will be consistent in its future behaviour. This, in turn, has a positive effect on investors' demand for stocks.

COM: Effective communication is a prerequisite for establishing healthy communication between parties. Correct communication prevents misunderstandings between the parties and ensures that the message reaches the other party correctly and in a timely manner. According to Whitener et al, (1998), communication that will be provided with accuracy, explanation and clarity is the focus for a trust or trustor. Thanks to well-designed communication between investors and companies, listed in the stock market, stock investments can rise.

SV: Sitkin & Roth (1993) state that value compliance is important in developing trust within an organization. The alignment of values also ensures the formation of shared values between trustor and trustee. Low congruence between investors and Companies causes distrust. It is expected that stock investments will increase when two parties have common values.

(CB): It is expected that an increase in concern and benevolence of trustee can lead to increase of affective or relational trust. According to Sekhon et al (2014) benevolence has three main dimensions; consideration and sensitivity, acting in protecting the interest of others and refraining from exploiting others. Besides benevolence has a key role to achieve trustworthiness. Thus, an increase in investments is expected when a company is interested in and benevolent with investors.

In this research, cognitive trust and affective trust variables are internal and five variables for reliability precursors are external variables. The trustworthiness variable tool is the internal hidden variable. Variables and hypothetical relationships between factors in the research model are summarized below.

$\gamma_{TR EC}$ shows the direct effect of expertise and competence on trustworthiness, $\gamma_{TR IC}$ shows the direct effect of integrity and consistency on trustworthiness, $\gamma_{TR COM}$ shows the direct effect of communication on trustworthiness, $\gamma_{TR sv}$ shows the direct effect of shared values on trustworthiness and $\gamma_{TR CB}$ shows the direct effect of Concern and Benevolence on the trustworthiness.

Besides, $\gamma_{CT TR}$ tool internal hidden variable shows the direct effect of trustworthiness on cognitive trust and $\gamma_{AT TR}$ tool internal hidden variable shows the direct effect of trustworthiness on affective trust. In the study, antecedents of trustworthiness (ξ_{EC} , ξ_{IC} , ξ_{COM} ,

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

ξ_{SV} and ξ_{CB}) were defined as external hidden variables. From the assumption that external hidden variables will affect the tool's internal hidden variable (η_{TR}), the η_{TR} variable is defined as the tool's internal hidden variable. But since there are no direct links from antecedents of trustworthiness to cognitive trust and affective trust, the indirect effect, not the mediating effect, was examined in the study.

η_{CT} and η_{AT} are internal latent variables that are tried to be explained in the research. Also, the study examined the indirect effects of antecedents of trustworthiness variables on cognitive and affective trust over trustworthiness.

The hypotheses of the research can be expressed as follows:

H₁: While investors' perception of expertise and competence towards the company increases, the trustworthiness of these companies increases.

H₂: While investors' perception of integrity and consistency towards the company increases, the trustworthiness of these companies increases.

H₃: While investors' perception of communication towards the company increases, the trustworthiness of these companies increases.

H₄: While investors' perception of the shared values towards listed companies increases, the trustworthiness of these companies increases.

H₅: While investors' perception of concern and benevolence towards listed companies increases, the trustworthiness of the service offered increases.

H₆: While investor's perception of trustworthiness towards companies increases, cognitive trust increases.

H₇: While investors' trustworthiness rises towards the company, its' affective trust rises.

H₈: Investors' perception of antecedents of trustworthiness, trust in the company is increase.

H_{8A}: Investors' perception of expertise and competence affect cognitive trust over trustworthiness.

H_{8B}: Investors' perception of expertise and competence affect affective trust over trustworthiness.

H_{8C}: Investors' perception of integrity and consistency effect cognitive trust over trustworthiness.

H_{8C}: Investors' perception of integrity and competence in stock market companies affects affective trust over trustworthiness.

H_{8I}: Investors' perception of concern and benevolence stock market companies affects cognitive trust over trustworthiness.

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

H_{3j1}: Investors' perception of concern and benevolence stock market companies affects affective trust over trustworthiness.

Model validity and parameter estimates

To achieve Convergent validity of the structural equation model of partial least squares, three criteria must be met. The first is that the standard factor load of each observed variable belonging to latent variables is less than 0.90, more significant than 0.70 (Chin, 1998). Second, for each structure, Composite Reliability (CR) and Cronbach Alpha (CA) ensure convergent validity and decomposition validity, and the values are greater than 0.70 (Hair, 1998). Finally, the average described variance (AVE) value for each structure must be higher than 0.50 (Hair et al, 1981). It should also be CR>AVE (Gürbüz, 2019).

For Convergent validity in the model, the standard factor loading (Factor Loading) must be greater than 0.70. In the study, items below 0.70 were excluded from the analysis, taking into account the values of VIF and AVE, and it was checked whether the value of AVE increased. Having items above 0.90 in factor loads can increase the VIF value. Although there were items with a factor load above 0.90 in the study, there were no values greater than three in VIF values. Factor load of SV1 is determined as 0.573 in factor loads. But, since the value of AVE does not appear to increase when removing this item and items with a load value above 0.90 from the scales, these variables that do not meet the criterion are not excluded from the analysis.

Cronbach's Alpha statistic of the Shared Values (SV) dimension, which examined the reliability of the dimensions contained in the model, was calculated as 0.656. This result is not a desirable situation. But since the rhoA and Composite Reliability statistics are greater than 0.70, they were not considered a problem. In the study, rho_A reliability was obtained above 0.70. The composite reliability CR statistic was obtained above 0.80. Therefore, it has been accepted that the scales have sufficient reliability values.

Since AVE values above 0.50 are obtained for convergent validity, convergent validity condition is also provided. Discriminant Validity, in other words, the square roots of AVE values are greater than 0.50. In the Fornell-Larcker criterion, these values on the diagonal must be large compared to other correlations. Since the Fornell-Larcker criterion is also provided in the model, decomposition validity is provided. Linearity for Model examined. If correlations between variables are 0.90 and above, they can lead to linearity. It is the value of the Variance Inflation Factor (VIF) that tests linearity (Hair et al, 2010). In the study, variables with VIF values of 3 and greater were excluded from the analysis and factors were free of the linearity effect. The smallest VIF value for observed variables was obtained as 1,151 and the largest VIF value was obtained as 2,904 and the analysis was continued. Also, one of the basic conditions in PLS-SEM analysis is that the structural model should not be tested without conditions such as VIF, AVE. The validator and structural equality model were tested with the number of variables where VIF values for observed variables were less than

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

three. Another power value prediction Power Q^2 analysis in the final stage of structural model analysis. Q^2 values help to show how well the relationship coefficients predict an observed intrinsic variable (Yilmaz et al, 2019). The fact that the predicted power coefficients (Q^2) calculated for endogenous variables are greater than zero shows that the research model has the power to predict internal variables (Hair et al, 2014).

In the study, there are three endogenous variables described by the structural model, and the predictive power of the AT variable was calculated as $Q^2 = 0.553$, $Q^2 = 0.546$ for the CT endogenous variable and $Q^2 = 0.545$ for the TR internal latent variable. According to Hair et al. (Hair et al, 2017), Q^2 shows a low effect of 0.02, a medium effect of 0.15 and a high effect of 0.35. In the study, Q^2 values were obtained from affected variables $KF = 0.283$ and $KKK = 0.192$.

The fact that the Q^2 value of the structural model is greater than zero indicates that it provides forecast validity (Chin, 1998). Also, the SRMR value of 0.08 indicates acceptable compliance, and the value of $NFI = 0.750$ is calculated below the acceptable value. The results obtained are given in Table 3. Another effect size is the square value R.

It shows how much of the change in the endogenous variable of the R square exogenous variable explains in percentage terms. PLS-SEM tries to maximize the R Square value of the model. 0.75 is important, 0.50 is medium and 0.25 is weak (Hair et al, 2017). In the study, discriminant validity values provided the Fornell-Larcker criterion and it was found that the values on the diagonal were above 0.70 (Minimum 0.771, max 0.94) and discriminant validity was provided. The criteria values obtained for the structural model are given in Table 3.

Table 3: Criteria for trustworthiness antecedents and the impact of trustworthiness on trust

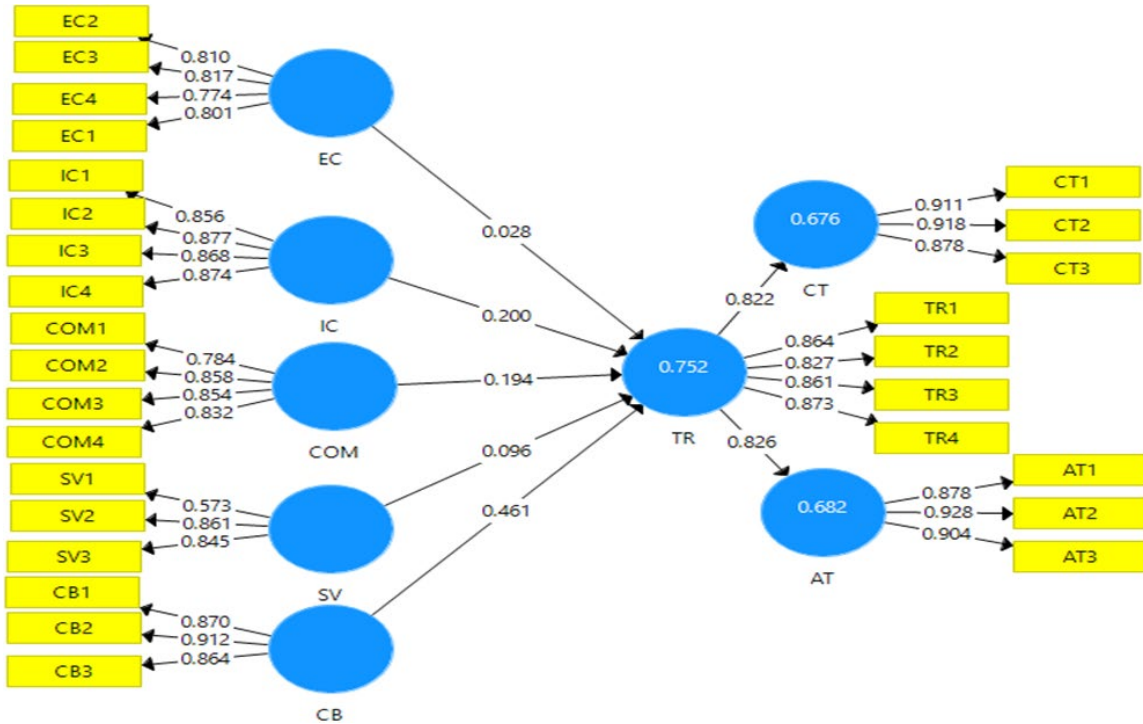
	AT	CB	COM	CT	EC	IC	SV	TR
Affective Trust AT	0,904							
Concern and Benevolence CB	0,802	0,882						
Communication COM	0,707	0,717	0,832					
Cognitive Trust CT	0,743	0,818	0,709	0,902				
Expertise and Competence EC	0,604	0,599	0,639	0,640	0,801			
Integrity and Consistency IC	0,749	0,747	0,706	0,813	0,753	0,869		
Shared Values SV	0,592	0,625	0,566	0,617	0,473	0,570	0,771	
Trustworthiness TR	0,826	0,826	0,737	0,822	0,624	0,757	0,621	0,857
AVE	0,816	0,778	0,693	0,814	0,641	0,755	0,595	0,734
Cronbach's Alpha	0,887	0,857	0,852	0,886	0,816	0,892	0,656	0,879
rho_A	0,888	0,859	0,855	0,890	0,834	0,894	0,721	0,880
Composite Reliability CR	0,930	0,913	0,900	0,929	0,877	0,925	0,810	0,917
SRMR	0,060							
d_G	0,659	d_ULS	1,466					
	Min	1,151						
VIF	Max	2,904						
Estimation Power Q^2	0,553			0,546				0,545
Adjusted R^2	0,682			0,676				0,750

Source: Compiled by the author

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

SmartPLS software tested whether the trustworthiness antecedents variables are exogenous latent and the trustworthiness variables are internal latent. The results obtained are given in Figure 2. Figure 2 shows the standard solution.



Source: Compiled by the author

Figure 2: Research Model and Path Correlations

According to Figure 2;

- A correlation of 0.028 units was found in the same direction between investors' perception of expertise and competence and the trustworthiness of stock market companies. However, this correlation was not found to be statistically significant ($t=0.896$ $P=0.371$). Therefore, H_1 was not supported.
- A statistically significant correlation of 0.200 units was found in the same direction between investors' perceptions of integrity and consistency and the trustworthiness of companies ($t=5,017$ $P=0.000$). Therefore, while investors' perception of integrity and consistency towards companies' increases, the trustworthiness of companies increases. Thus, H_2 is supported.
- A statistically significant correlation of 0.194 units was found in the same direction between investors' perception of communication and the trustworthiness of the company ($t=5,404$

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

P=0,000). Therefore, as investors' perception of communication towards their companies' increases, the trustworthiness increases. So, H₃ was supported.

- A statistically significant 0.096 unit correlation was found in the same direction between investors' perception of shared values and the trustworthiness of the company (t=3,265 P=0.001). Therefore, while shared values perception of the investor increases, the trustworthiness of the company is rising. This means that the H₄ hypothesis is supported.
- A statistically significant correlation of 0.461 units was found in the same direction between investors' perception of concern and benevolence and the trustworthiness of the company (t=12,099 P=0.000). Therefore, while investors' perception of concern and benevolence increases, companies' trustworthiness increases. As a result, H₅ was supported.
- A statistically significant correlation of 0.822 units was found in the same direction between the trustworthiness of companies and cognitive trust (t=46,585 P=0,000).
- Therefore, while the trustworthiness of companies increases, cognitive trust in companies' increases. This indicates that H₆ is supported.
- A statistically significant correlation of 0.826 units was found in the same direction between the trustworthiness of listed companies and affective trust (t=56,403 P=0,000).
- Therefore, affective trust increases while the trustworthiness of listed companies increases and it means H₇ supported.

In the study, the possible effects of an exogenous variable on the endogenous variable over the internal endogenous variable were also investigated. It was determined that there were significant relationships (Table 4). Accordingly;

- Investors' perception of expertise and competence does not affect cognitive trust through trustworthiness (t=0,896 P=0,370). Therefore, H_{8A} cannot be supported.
- Investors' perception of expertise and competence does not affect affective trust through trustworthiness (t=0,897 P=0,370). Therefore, H_{8B} cannot be supported.
- It has been determined that investors' perceptions of integrity and consistency affect cognitive trust in stock market transactions through trustworthiness (t=4,848 P=0,000). This result indicates that the H_{8C} hypothesis is supported.
- Investors' perception of integrity and consistency affects affected trust over trustworthiness (t=4,908 P=0,000). So, H_{8D} is supported.
- It has been determined that investors' perception of communication affects cognitive trust over trustworthiness (t=5,283 P=0,000). So, H_{8E} is supported.
- Investors' perception of communication affects affective trust over trustworthiness (t=5,372 P=0,000). So, H_{8F} is supported.
- Investors' perception of shared value affects cognitive trust over trustworthiness (t=3,246 P=0.001). So, H_{8G} is supported.

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

- It has been determined that investors' perception of shared value affects affective trust over trustworthiness ($t=3,256$ $P=0.001$). As a result, H_{8H} is supported.
- Investors' perception of concern and benevolence affects cognitive trust over trustworthiness ($t=12,601$ $P=0.000$). As a result, H_{8I} is supported.

Investors' perception of concern and benevolence towards stock market companies affects affective trust over trustworthiness ($t=11,835$ $P=0,000$). As a result, H_{8J} is supported.

Another measure of effect magnitude is f^2 . The effect size is calculated for each external variable and shows the share of each external variable in the rate of disclosure of the internal variable. This rating is described as low if it is 0.02, medium if it is 0.15, and high if it is 0.35 (Hair et al, 2017). In the study, the effect size of the EC exogenous variable on the explanation of the TR variable was determined as 0.001. In other words, the EC variable describes 0.01% of the changes in the TR variable. This value was not statistically significant. The difference explained on TR for the effect of the IC exogenous variable was determined to be 4,5%. It was determined that the change described by the COM variable on TR had an impact of 5,9%, the difference explained by the SV variable on the TR variable had an impact of 2,1%, and the CB variable had an effect of 2.91%. Internal latent variable TR accounts for 2,09% of the CT variable and 2,146% of the AT variable.

In the study, whether there is a relationship between various categorical characteristics of investors and internal and affective trust was also investigated with PLS-SEM. In the tested model, it was determined that the factor loads were above 0,70. No values more significant than three were found in VIF values. Discriminant statistics for discriminant validity were calculated above 0.70; AVE values were more significant than that of 0.50. Since SEM is obtained from among the observed variables, the reliability coefficient for the observed variables is 1. This is because it does not work with scale. SEM findings for observed variables are given below and shown in Figure 3.

Table 4: Antecedents of Trustworthiness and standardized parameter estimates of trustworthiness for trust

		Parameter	Std. Deviation	t	P	f ²	Decision
H1	EC -> TR	0,028	0,031	0,896	0,371	0,001	No Supported
H2	IC -> TR	0,200	0,040	5,017	0,000	0,045	Supported
H3	COM -> TR	0,194	0,036	5,404	0,000	0,059	Supported
H4	SV -> TR	0,096	0,029	3,265	0,001	0,021	Supported
H5	CB -> TR	0,461	0,038	12,099	0,000	0,291	Supported
H6	TR -> CT	0,822	0,018	46,585	0,000	2,090	Supported
H7	TR -> AT	0,826	0,015	56,403	0,000	2,146	Supported
H8A	EC -> TR -> CT	0,023	0,026	0,896	0,370		No Supported
H8B	EC -> TR -> AT	0,023	0,026	0,897	0,370		No Supported
H8C	IC -> TR -> CT	0,165	0,034	4,848	0,000		Supported

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

		Parameter	Std. Deviation	t	P	f ²	Decision
H8D	IC -> TR -> AT	0,165	0,034	4,908	0,000		Supported
H8E	COM -> TR -> CT	0,159	0,030	5,283	0,000		Supported
H8F	COM -> TR -> AT	0,160	0,030	5,372	0,000		Supported
H8G	SV -> TR -> CT	0,079	0,024	3,246	0,001		Supported
H8H	SV -> TR -> AT	0,079	0,024	3,256	0,001		Supported
H8I	CB -> TR -> CT	0,379	0,030	12,601	0,000		Supported
H8J	CB -> TR -> AT	0,381	0,032	11,835	0,000		Supported

Source: Compiled by the author

A statistically significant correlation of 0.434 units was determined in the same direction between the return of investors from stock investments and cognitive trust ($t=13,775$ $P=0.000$). It means that cognitive trust increases as the return on investment increases.

A statistically significant correlation of 0.427 units was determined between return on investment and emotional confidence in the same direction ($t=12,799$ $P=0.000$). While the return on investments increases, affective trust also increases.

A statistically significant correlation of 0.427 units was determined between return on investment and affective trust in the same direction ($t=12,799$ $P=0.000$). Accordingly, while the return on investments increases, affective trust also increases.

A statistically significant correlation of 0.175 units was determined between the gender of investors and cognitive trust in the same direction ($t=5,476$ $P=0.000$). Cognitive trust in women is higher than in men.

A statistically significant correlation of 0.143 units was determined between gender and affective trust in the same direction ($t=4,179$ $P=0.000$). While the gender of investors is female, affective trust increases.

An inverse relationship of 0.218 units was determined between the frequency of investors trading on the stock market and cognitive trust ($t=6,571$ $P=0.000$). Cognitive trust decreases as the number of transactions increases in investors. This is a result revealed by the experience of investors. Although the frequency of transactions is expected to increase as investor trust increases, the increase in the frequency of transactions reduces trust. This supports the low participation of new investors in the BIST for the working period. On this result, it can be considered that the stock market is seen as a gambling tool by some investors (Yeşildağ & Özen, 2015).

A relationship of 0.218 units was determined in the opposite direction between the frequency of investors trading on the stock market and affective trust ($t=6,193$ $P=0.000$). Investors'

ÖZEN E. (2021).

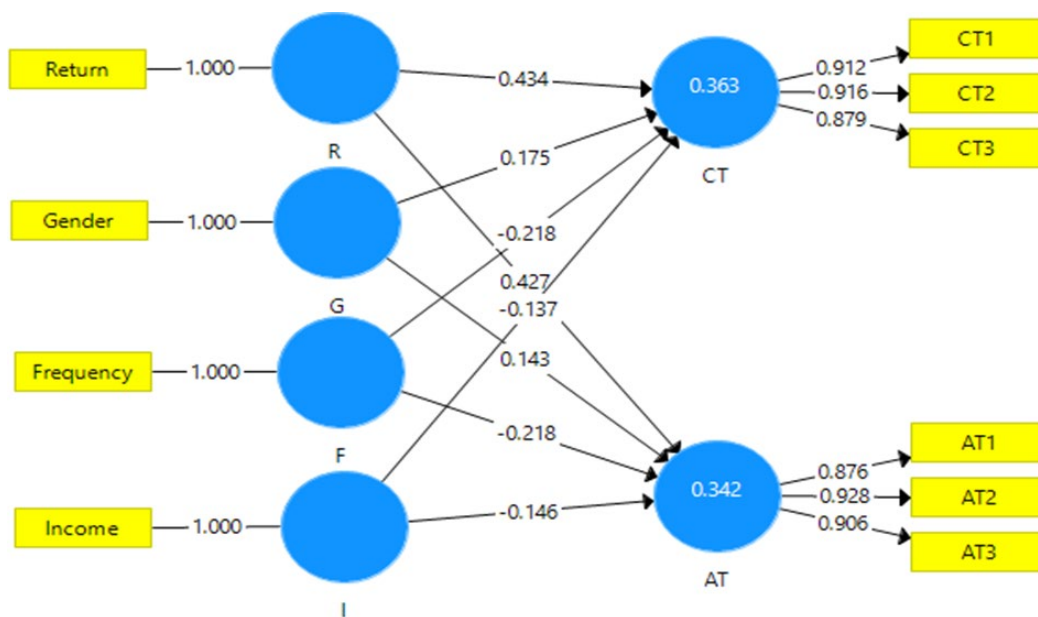
Investor Trust and Stock Market Participation: Evidence from BIST

affective trust is declining as the number of stock trades increases. The result is similar to cognitive trust.

A statistically significant correlation of 0.137 units was determined in the opposite direction between the monthly salaries of investors and cognitive trust ($t=4,226$ $P=0.000$). Cognitive trust decreases while investors' salaries increase.

An inverse and statistically significant correlation of 0.146 units were also determined between investors' wage income and affective trust ($t=4.42$ $P=0.000$). While investors' salaries increase, affective trust decreases. The results are given in Figure 3.

From the compliance measures for Figure 3, SRMR value 0.039, d_{ULS} value 0.085, and d_G value 0.111 were obtained. f^2 values were calculated from the effect magnitude measurements between 0.062 and 0.274. Another power value for affected trust was calculated as R square 0.342, and R square for cognitive trust was calculated as 0.363.



Source: Compiled by the author

Figure 3: Path Analysis by Observed Variables

4. Conclusion

The objectives of this study were; (i) to determine the level of trust of investors who invest in stocks of companies listed in BIST, (ii) to determine the connections between antecedents of

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

trustworthiness with trustworthiness, (iii) to determine the relationships between cognitive trust and affective trust with trustworthiness and trust of the investors and (iv) reveal that relationship between some demographic characteristics of investor and cognitive trust and affective trust.

For this reason, 645 people who have traded stocks at least once in the last 5-year period made up the sample of the study. It was used an 8-dimensional scale consisting of 29 items developed by Sekhon et al. (2014) in this study. Expertise and competence, integrity and consistency, communication, shared values, concern and benevolence, trustworthiness, cognitive trust, and affective trust are the dimensions of the trust scale in the study. In the study, data were analyzed using the SEM, and Smart-PLS software was used.

Research results show that investors have a low level of trust in companies they have previously traded on the stock market. According to SEM results, concern and benevolence are the most important antecedents of trustworthiness in the trustworthiness of listed companies (0.460). Integrity and consistency (0,200) are other vital antecedents of trustworthiness. The correlation coefficients between cognitive trust and affective trust and reliability are over 0.800. Another interesting finding is that investors with low cognitive and affective conviction are the ones who trade the most on the stock market. This, in turn, confirms the claim that a stock market is a place of gambling, which some literature studies have suggested. In contrast, as returns from stock market transactions increase, investors' cognitive and affective trust in companies on the stock market increases. This conclusion also coincides with the findings of Camilleri et al. (2018). Although our study appears to be incompatible with the results of Georgarakos & Pasini (2011), this is because the sample type covered by the study is different.

The study findings are important for public institutions that will strive to develop capital markets, companies that plan to acquire new resources from capital markets, and companies that want to provide sustainable financing in capital markets.

There is no study in the literature about trust in listed companies to the best of our knowledge. The concept of trust discussed in previous studies has often been limited to a single dimension. As an example, trust in banks is called, while the soundness of the bank's financial structure and the expertise and competence of its management to do business are implied. In this study, five dimensions of trust were included in the research model as follows (i) expertise and competence, (ii) communication, (iii) concern and benevolence, (iv) shared values, (v) integrity and consistency. Besides, the concepts of cognitive and affective trust have often been neglected in the literature. Therefore, the study covers all the elements that reveal the reliability of an institution. This was made possible by the scale developed in the study Sekhon et al. (2014). The issue in which this study differs from the study of Sekhon et

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

al. (2014) is that it is the first study to address investors' trust in an invested company rather than financial services marketing.

To provide a trustful investment environment, some parties such as listed companies, regulatory and supervisory institutions should consider the result of this study. Listed companies can be more transparent and have effective investor relations units. The most important duty to save a trustful environment belongs to the regulatory and supervisory institutions. They must examine the market processes continuously and must play the leading role. The market process must also be an audit to find out the problems and launch new rules and approaches. Regulations on preventing market-disrupting transactions should also be strictly enforced, and sanctions should be imposed if necessary.

Only those who invested in stocks in the last five years made up the sample of the study. For this reason, it was not possible to measure the trust levels of people who had never actively invested. However, it is necessary to investigate the level of perception of trust of households who have not invested in stock markets. To this end, the study is far from measuring the trust levels of all individuals.

In future periods, the study can be renewed by including people who have not previously invested in the stock market in the scope of the sample. Thus, it can be revealed if the findings of Guiso et al. (2008) and Ng et al. (2016) are approved. Also, by analyzing the trust levels of those who do not trade in the stock market, policies that can be applied at both the investor and company levels can be created. Besides, because the sample covers only one country, there may be a bias problem. Therefore, the scale can be applied for the multi-country base.

References

- Boz H.. & Özen E. (2019). The relationship between customers' tendency to risk avoidance and preferring online banking services. *Gümüşhane Üniversitesi Sosyal Bilimler Enstitüsü Elektronik Dergisi*, 10(1), 220-230.
- Calderón, C., Chong, A., & Galindo, A. (2002). Development and Efficiency of the Financial Sector and Links with Trust: Cross-Country Evidence. *Economic Development and Cultural Change*, 51(1), 189-204. doi:10.1086/344547.
- Camilleri S., J. Grima L., & Grima,S. (2018) "The effect of dividend policy on share price volatility: an analysis of Mediterranean banks' stocks", *Managerial Finance*, <https://doi.org/10.1108/MF-11-2017-0451>, <https://doi.org/10.1108/MF-11-2017-0451>
- Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In G. A. Marcoulides (Ed.), *Methodology for business and management. Modern methods for business research* (p. 295–336). *Lawrence Erlbaum Associates Publishers*.

ÖZEN E. (2021).*Investor Trust and Stock Market Participation: Evidence from BIST*

- Civelek, M.E. (2018). Yapısal Eşitlik Modellemesi Metodolojisi. *Beta Basım Yayın Dağıtım*, I. Baskı. İstanbul.
- Çakır, F.S. (2019). Kısmi En Küçük Kareler Yapısal Eşitlik Modellemesi (PLS-SEM) ve Bir Uygulama, *Sosyal Araştırmalar ve Davranış Bilimleri Dergisi Cilt 5, Sayı 9*, s. 111-128.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: *Algebra and statistics*.
- Georgarakos, D., & Pasini, G. (2011). Trust, sociability, and stock market participation. *Review of Finance*, 15(4), 693-725, <https://doi.org/10.1093/rof/rfr028>.
- Guiso, L., Sapienza, P., & Zingales, L. (2008). Trusting the stock market. *The Journal of Finance*, 63(6), 2557-2600, <https://doi.org/10.1111/j.1540-6261.2008.01408.x>.
- Gümüş Özuyar, S.E. (2019). Refah İktisadi, Kamusal Mallar ve Yaşam Memnuniyeti. *SonÇağ Akademi Yayınları*: Ankara
- Gürbüz, S. (2019). AMOS ile Yapısal Eşitlik Modellemesi. Seçkin Kitabevi. I.Baskı, ANKARA, 77-82.
- Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), Sage Publication, Los Angeles. Sage.
- Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). Multivariate Data Analysis (5th ed.). Englewood Cliffs: Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., and Tatham, R. I. (2010). Multivariate Data Analysis. 7th Edition. Pearson Prentice Hall, New Jersey.
- Hair J.,F, Tomas M.,H, Ringle M., C (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), Second Edition, *SAGE Publications*, ISBN 978-1-4522-1744-4.
- Kara, F. Z., Sarıkaya, M., & Temizel, F. (2009). Yatırımcı İlişkileri Yönetiminde Güven Ve Ekonomiye Etkisi. Afyon Kocatepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 11(1), 279-307.
- Kline, R.B. (2011) Principles and Practice of Structural Equation Modeling. Guilford Press, New York, ISBN 978-1-4625-2335-1.
- Levine, R., (1997). Financial Development and Economic Growth: *Views and Agenda` Journal of Economic Literature*, 35, 687-726.
- Mayer, C. (2008). Trust in financial markets. *European Financial Management*, 14(4), 617-632, <https://doi.org/10.1111/j.1468-036X.2008.00454.x>.
- Maslow, A. H. (1943). Preface to motivation theory. *Psychosomatic medicine*, 5(1), 85–92, <https://doi.org/10.1097/00006842-194301000-00012>.
- McAllister, D. (1995). Affect and cognition-based trust as foundations for interpersonal cooperation in organisations. *Academy of Management Journal*, 38(1), 24–59.
- Ng, A., Ibrahim, M. H., & Mirakhor, A. (2016). Does trust contribute to stock market development?. *Economic Modelling*, 52, 239-250, <https://doi.org/10.1016/j.econmod.2014.10.056>.
- Noja, G. G., & Cristea, M. (2017). Working conditions as key drivers of economic growth: Empirical evidence for Europe. *Economic and Social Development: Book of Proceedings*, 59-71.
- Sekhon, H., Ennew, C., Kharouf, H., & Devlin, J. (2014). Trustworthiness and trust: Influences and implications. *Journal of Marketing Management*, 30(3-4), 409-430, <https://doi.org/10.1080/0267257X.2013.842609>.
- Sitkin, S., & Roth, N. (1993). Explaining the limited effectiveness of legalistic for trust/distrust. *Organisation Science*, 4(3), 367–392. doi:10.1287/orsc.4.3.367.

ÖZEN E. (2021).

Investor Trust and Stock Market Participation: Evidence from BIST

- Tufan, E. (2020), Behavior of Investor and Behavioral Finance: Some Cognitive Biases and Heuristics, in *Modern Portfolio Management: Methods, Approaches and Applications* (in Turkish), Ed.Ercan ÖZEN, Ekin Publishing, Bursa. ISBN: 978-625-7210-22-5.
- Temizel, F., & Coşkun, İ. O. (2010). Finansal Piyasalar İle Etkin Bir İletişim ve Geliştirilmiş Şeffaflık Aracı Olarak Yatırımcı İlişkileri. *Afyon Kocatepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 12(2), 81-102.
- Vurur, S., E. Özen, 2013, Türkiye’de Mevduat Banka Kredisi ve Ekonomik Büyüme İlişkisinin İncelenmesi, *Uşak Üniversitesi Sosyal Bilimler Dergisi*, 6(3), 119-133.
- Williams, M. (2001). In whom we trust: Group membership as an affective context for trust development. *The Academy of Management Review*, 26(3), 377–396. doi:10.2307/259183
- Whitener, E., Brodt, S., Korsgaard, A., & Werner, J. (1998). Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behaviour. *Academy of Management Review*, 23(3), 513–530. doi:10.5465/AMR.1998.926624.
- Yılmaz, V., Can, Y., Aras, N. (2019). Investigation of Attitude about Nuclear and Renewable Energy by Using Partial Least Squares Structural Equation Modeling. *Alphanumeric Journal The Journal of Operations Research, Statistics, Econometrics and Management Information Systems*, 7(1), 87-102, DOI: 10.17093/alphanumeric.460563.
- Yeşildağ, E., & Kaderli, Y. (2013). Türkiye’de Seans Salonuna Gelen Yatırımcıların Aracı Kurum Seçimine Etki Eden Unsurlar: Bir Faktör Analizi Uygulaması. *Muhasebe ve Finansman Dergisi*, (59), 113-134.
- Yeşildağ, E., & Özen, E. (2015). Uşak ilindeki hisse senedi yatırımcılarının profili ve yatırım kararlarını etkileyen demografik ve sosyo-ekonomik faktörlerin analizi. (The Profile of Stock Investors in Uşak and Analysis of Demographic and SocioEconomic Factors Affecting Investment Decisions) *Journal of Accounting, Finance and Auditing Studies*, 1(2), 78-102.
- Turkish Statistical Institute (TurkStat), 2020, <https://data.tuik.gov.tr/Bulten/Index?p=Adrese-Dayali%20N%20C%20B%20fus-Kay%20Sistemi-Sonu%20A%20lar%202020-37210&dil=1>, (Accessed on 03.11.2020).
- Turkish Capital Markets Association, 2020, <https://www.tspb.org.tr/tr/veriler/>, (Accessed on 03.11.2020).
- <http://www.worldvaluessurvey.org/wvs.jsp>. (Accessed on 10.03.2020)