Investigating the Effect of Relational and Performance Characteristics on Customers' Online Trust and Loyalty (Case study: Stock Brokerage Industry)

[1]Alireza Deravi, [*2]Sahar Hosseinikhah Choshaly
1. MSC in Ecommerce Management , Lahijan Branch, Islamic Azad University,
Lahijan, Iran
Email : alireza@deravi.ir
2 .Assistant Professor, Department of Management, Lahijan Branch, Islamic Azad University,
Lahijan, Iran
Email: s.hk@liau.ac.ir

Abstract

The present study investigates the effect of relational and performance characteristics on the online trust and loyalty of customers (case study: stock brokerage industry). The statistical population of the study included customers or investors of the Gilan stock exchange who have done online investments or bought and sold at least once. The sample size was determined at 212 people using a convenience random sampling method and Cochran's formula in the unlimited statistical population. The study used a descriptive-survey method. The study measurement tool was a standard questionnaire. Experts were used to examine the validity of the study tool. Cronbach's test was also used to measure its reliability. Data were analyzed at two levels, descriptive statistics and inferential statistics. The collected data and available information were used using inferential statistics techniques and the structural equation test using LISREL software. The collected data were analyzed in SPSS software. The results revealed that all dimensions of relational and performance characteristics positively and significantly affect online trust and loyalty.

Key words; Dimensions of performance characteristics, Dimensions of relational characteristics, Online trust, online loyalty

Introduction

People's shopping habits have changed due to the developments of the Internet and the advent of online shopping (Nguyen, 2022; Parishani, et al., 2021). Customer loyalty in today's competitive and complex market is considered the primary factor in gaining a competitive advantage for any organization (Alghamdi, 2021). Retaining current customers is much cheaper than attracting new customers. Attracting customers on the Internet is very expensive. Profitability will not be achieved if customers are not loyal and their purchases are not regular and frequent. Competitors are only a few clicks away from customers. Thus, customer loyalty has become a very complex process for managers. The increase in loyalty can predict revenue-generating streams from customers and a gradual increase in revenues (Romadhoni et al., 2015). Chiu (2008) argues that loyalty increases the profitability of different industries. The increase in loyalty will predict revenue-generating streams from customers and the gradual increase in revenues (Cheng et al., 2009). It has stimulated various challenges and opportunities in creating long-term customer relationships in retail and financial services (Verhoef, 2015).

The development of different channels is a strategic issue for financial institutions. It might lead to differentiation, providing better customer service, reducing costs, and increasing customer loyalty (Dimitriadis and Kyrezis, 2011), when they interact through low-cost channels with a higher level of purchase. Multi-channel retailers use various channels to interact with customers. These channels can

be stores, kiosks, catalogs, and websites (Jin, Kim, 2010). Online loyalty is defined as the customer's desirable attitude and commitment to online shopping. It is associated with frequent shopping behavior. The stock brokerage industry enables companies and governments to develop capital in the form of debt or equity. It allows investors to operate with confidence in the capital markets. Brokerage companies provide financial advice to investors and use various forms of capital to grow new businesses and create markets through trading. This study plays the primary role in the financial services sector and shows these primary characteristics in line with this study. Total revenue was estimated at $142 and its annual growth was about 2% in the United States in 2016. This industry is a strong and very healthy competition (Crick, 2015).

Based on Bock (2012), the existence of multiple channels increases the diversity of services available to the customer. When the customer interacts with the company to communicate, the level of satisfaction and loyalty toward this company may increase and this concern is a potential that can be addressed more effectively. Chiu (2009) revealed that the use of online transactions (online search, online purchase or online shopping, and offline search) improves customer satisfaction and increases customer loyalty. Based on De Valck (2009), online shopping is defined as B2B e-commerce services that allow investors to buy and sell stocks on the Internet. It is usually less than those included in full-service fees. Special services in online shopping include buying and selling shares and trading options, comparing prices in real-time and doing negotiations via email, and more monitoring. Kassim (2010) stated that trust is achieved when a group believes in the integrity and credibility of its partner.

Murman et al. (1992) defined trust as a tendency and desire to exchange and communicate with a partner. Several researchers have presented this definition in online and offline structures (Bock, 2012). Chen et al. (2004) found that in an online retail structure that works like bricks and mortar, trust affects behavioral loyalty and the goal is buying from the channel. In this study, we proposed that multiple channels may affect the customer's perception of service delivery in two ways. First, it may reduce the online hopelessness that the customer sometimes faces owing to the existence of several options. Second, it sends a signal of accessibility and freedom from the broker company. Thus, the types of services available to the customer and different points of interaction can increase the customer's trust in online shopping behavior and loyalty.

Trust is a significant element of success in online and multi-channel retail channels. Kassim (2010) stated that trust is achieved when a group believes in the integrity and credibility of its partner. Kondasani et al. (2015) stated that trust is a tendency or desire to exchange and communicate with a partner and defined it as behavior based on confidence. Several researchers have presented this definition in online and offline structures (Bock, 2012). Chen et al. (2004) found that in an online retail structure that works like bricks and mortar, trust affects behavioral loyalty and the goal is online shopping. Several researchers have indicated that website features play a vital role in creating online customer loyalty. In the present study, it means technical aspects that include the features of commercial websites such as security and privacy, beauty, and ease of use (Toufailya and Pons, 2017). Customers who shop from physical stores have a greater tendency to shop than those who shop online (Zehir, 2014).

Based on Verhoef (2015), users' attitudes toward providing services in a multi-channel structure are affected by channels since users compare their experiences in different channels. This comparative process will allow us to judge the quality and achieve online trust. Retailers can align themselves with the needs and purchasing patterns by using online and offline channels simultaneously. Gracia (2015) defined customization and stated that it is the capability to create advanced products and purchase products that are experienced based on the customers' tastes and their personal and preferred information. Customization is crucial to online shoppers. In the online banking structure, Barnes (1997) indicated that face-to-face contact with service employees has a higher effect on customer

loyalty compared to phone banking and ATM machines. Hardeep (2010) indicated that good service quality and providing support services can increase online customer trust.

Moreover, these things should be informed, and this was an example of a solution. It prevents maximum technical and cognitive errors and increases the customer's trust in this website. Based on Jin (201), the members of a society are more committed to achieving common goals and this relationship is owing to the exchange of information and mutual relationships established between group members. Virtual communities maintain long-term relationships. They affect customers and act as a reference group. They have a positive impact on trust. Participation in society positively affects trust (Kasalo, 2007). The research literature supports the positive association between the high quality of website features and satisfaction, customer loyalty, and positive word-of-mouth advertising (Chin, 2009). However, these effects have not had much validity in empirical studies and in different retail structures. The present study aims at exploring this neglected case. Based on the theoretical framework of the study, the conceptual model of the study is shown in Figure 1.
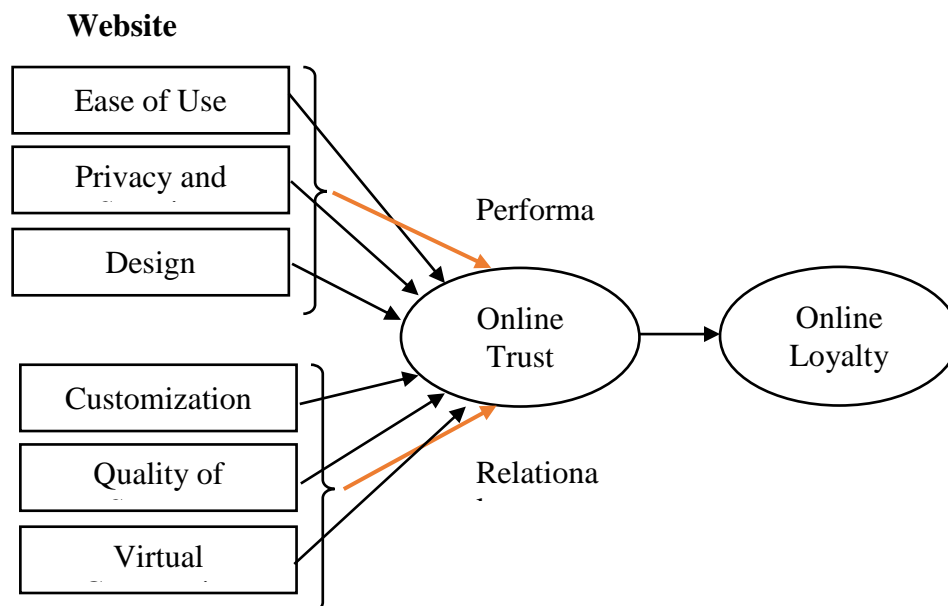

Figure 1: Conceptual model of the research (Toufailya and Pons, 2017)

The customer experience in any company includes the ability to use the website. It determines the cost as the first criterion for selecting online shopping (Krick, 2015). In the digital technology structure, customers have more capabilities. Thus, it is expected to reduce costs and similar experiences of preferred channels and flexible service delivery and usable frameworks have been obtained. Several factors may affect these customer expectations and their perceptions regarding the use of online services, including the nature of broker companies and customer trust in these companies. The present article follows two goals. First, it compares the roles played by website features in online loyalty and customer relationships. Second, it examines the effect of online customer trust as a mediator in the mentioned relationship. Finally, given the statement of the problem, the primary question of this study is to determine whether the relational and performance characteristics affect the online trust and loyalty of customers in the stock brokerage industry or not.

Methodology

The present study was applied in terms of aim and descriptive survey in terms of method. The statistical population of the study included the customers or investors of the stock exchange of Gilan

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province who have done online investment or buying and selling at least once. In this study, Cochran's formula was used to determine the sample size due to the unlimited population, and the number of samples was determined at 212. Accordingly, 300 questionnaires were distributed among the subjects, which were selected through non-probabilistic sampling. Among the distributed questionnaires, 265 were returned. Among them, 53 questionnaires could not be used and 212 questionnaires were used to test research hypotheses.

The questionnaire used in this research includes 28 questions and is based on the questionnaire of Toufailya and Pons (2017). In this study, among the different types of methods used for determining the validity of the measurement tool, content validity was used. Content validity shows that the measured items can measure the desired concept. To measure the content validity, the opinions of professors and experts were used. As a result, its structural problems were identified and the necessary corrections were made to fulfill the face validity. The confirmatory factor analysis technique and fit indices were used to measure factor validity. The reliability of the questionnaire was calculated using Cronbach's alpha method (Table 1).

Table 1: Calculation of reliability of questions

Variable	Cronbach's alpha
Easy to use	0.77
Security and privacy	0.83
Design	0.86
Customization	0.72
Quality support	0.87
Virtual community	0.95
Trust online	0.92
Online loyalty	0.93

Since the value of Cronbach's alpha related to each variable and the value of total alpha were more than 0.7, the variables have adequate reliability. The structural equation modeling method and SPSS and LISREL software were used to analyze the data.

Table 2: Title of variables in the model

Title in model	Variable
R.C	Relational characteristics
P.C	Performance characteristics
O.LOY	Online trust
O.TR	Online loyalty

Results

The results revealed that 79.2% of the respondents are male and 20.8% of them are female. The highest frequency is related to the age group of 26-35 years with a frequency percentage of 46.2%, followed by the age group of 36-45 years with a frequency percentage of 32.1%. The lowest frequency is related to the age group under 25 years old with a frequency percentage of 2.8%.

Table 3: Data normality test

One-Sample Kolmogorov-Smirnov Test								
	N	Normal Parameters [a,b]		Most Extreme Differences			Kolmogoro v-Smirnov Z	Asymp. Sig. (2-tailed)
		Mean	Std. Deviation	Absolut e	Positiv e	Negativ e		
R.C	212	3.5749	.66392	.064	.064	-.049	.928	.355
P.C	212	3.6724	.73786	.067	.046	-.067	.981	.291
O.LOY	212	3.2904	.71886	.067	.067	-.036	.978	.294
O.TR	212	3.4009	.61405	.091	.091	-.053	1.318	.062
a. Test distribution is Normal.								
b. Calculated from data.								

Based on Table 3, the normality of the variables was confirmed.

To test the conceptual model of the research, data analysis with the help of the structural equation model was used. Accordingly, LISREL software was used to perform the analysis. To test the first hypotheses of the study, the path coefficients related to each of the hypotheses should be calculated. Figures 2 and 3 present the output of the path coefficients of the structural equation model of this study, which was also confirmed in the previous stages of its fitting.
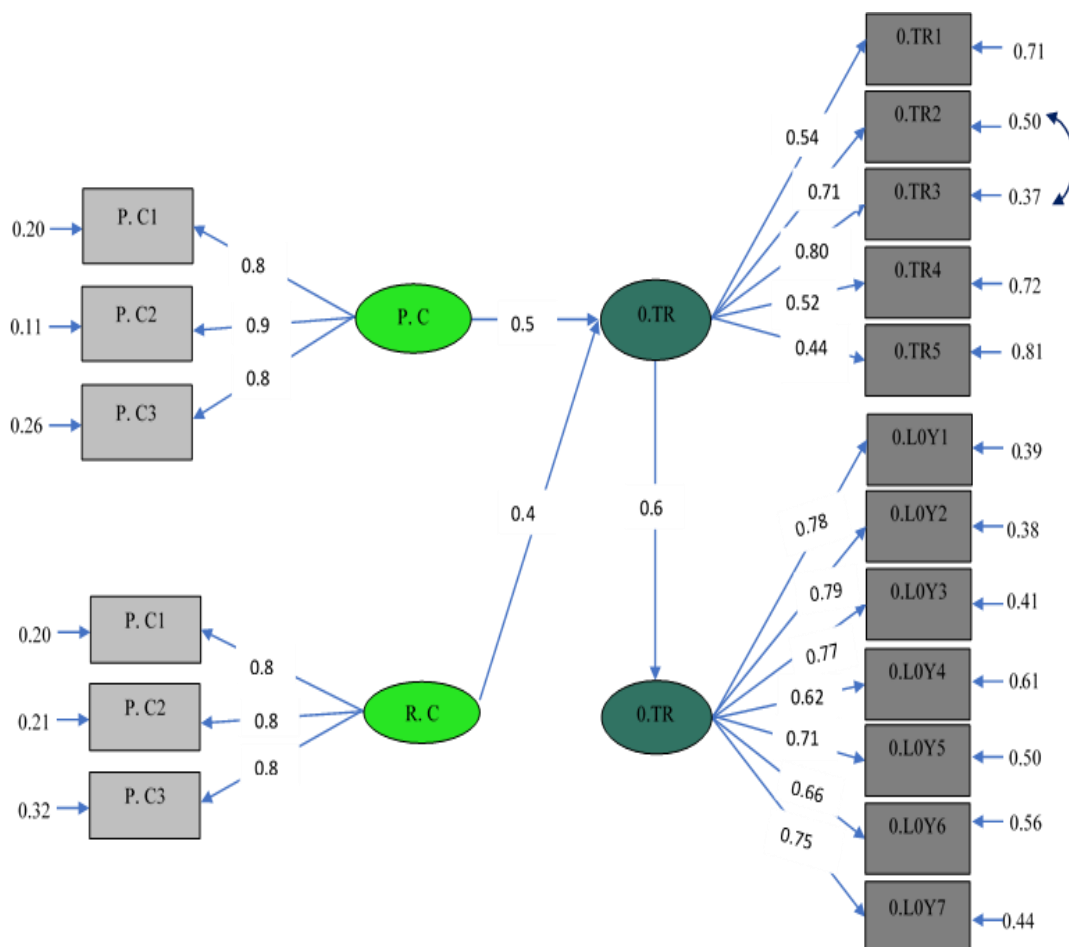

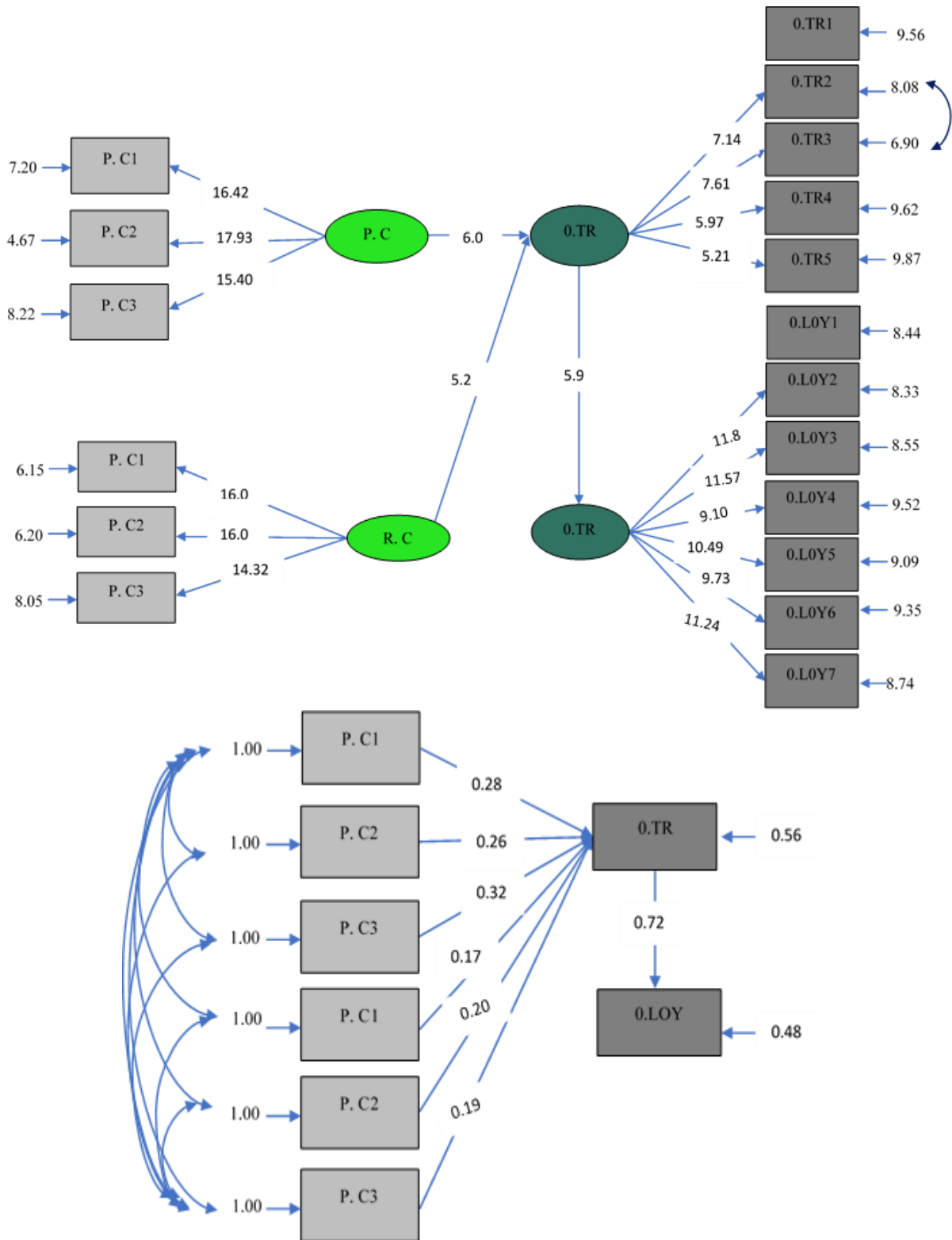Figure 2: Standard statistics for primary hypothesis paths

Figure 3: Standardized factor loading coefficients related to sub-hypothesis paths

Figure 4: Significant coefficients related to each path of the primary hypothesis
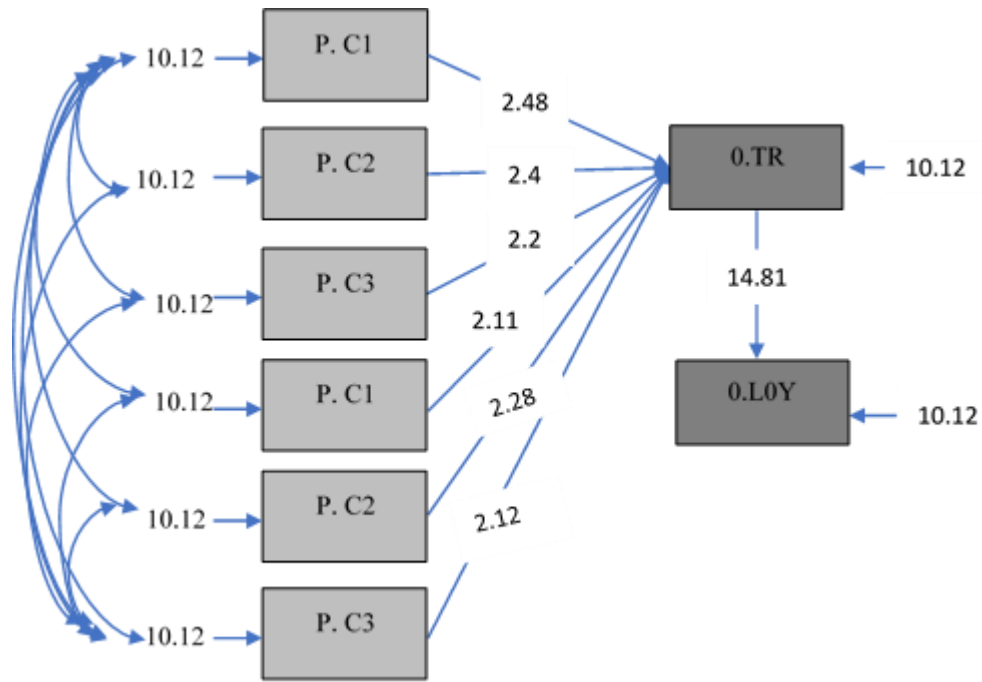
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Figure 5: Significant statistics related to each path of the sub-hypothesis

It shown in Table 4, the values of the GFI, IFI, and NNFI indices are 0.90, 0.95, and 0.94, respectively. Thus, they are in the range of desirable and suitable fit. Also, the RMSEA index value is 0.07, indicating a very good fit for the model.

Table 4: Fit indices of the research conceptual model

Fit indices	Good values	Excellent values	Values in this study	
x^2/df	4≤	3≤	2.28	Good fit
Root Mean Squared Error of Approximation (RMSEA)	0.1≤	0.08≤	0.07	Good fit
Normed Fit Index (NFI)	0.8≥	0.90≥	0.92	Good fit
Non-Normed Fit Index (NNFI)	0.8≥	0.90≥	0.94	Good fit
Comparative Fit Index (CFI)	0.8≥	0.90≥	0.95	Good fit
Incremental Fit Index (IFI)	0.8≥	0.90≥	0.95	Good fit
The goodness of Fit Index (GFI)	0.8≥	0.90≥	0.90	Good fit

Table 5: The results of the research hypotheses

Sub-hypotheses	Standard	sig	Result
The easy use of the website positively and significantly affects the online trust of customers.	0.28	2.48	Confirmed
Security and privacy positively and significantly affect the online trust of customers.	0.26	2.40	Confirmed
Website design positively and significantly affects the online trust of customers.	0.32	3.30	Confirmed
The customization of the website positively and significantly affects the online trust of customers.	0.17	2.11	Confirmed
The quality of website support positively and significantly affects	0.20	2.28	Confirmed

the online trust of customers.			
The virtual community of the website positively and significantly affects the online trust of customers.	0.19	2.13	Confirmed
Customers' online trust positively and significantly affects online loyalty.	0.72	14.81	Confirmed

Conclusion

The results revealed that the easy use of the website positively and significantly affects the online trust of customers. In this study, the variable of ease of use of the website directly affected the online trust by 0.28 and the t-statistics of these two variables was 2.48 (t-statistics greater than 1.96), indicating a positive and significant relationship. The results confirm that 7.84% of changes in customer online trust are predicted and explained by the ease of use of the website. In this regard, the study by Toufailya and Pons (2017) examined the impact of customer website features on online relationships in the stock brokerage industry. They showed that the easy use of the website positively and significantly affects the online trust of customers, which is consistent with the results of this study. Based on the results, it can be stated that personal privacy and security positively and significantly affect the online trust of customers. In this study, the variable of security and privacy directly affected the online trust of customers, and the t-statistic of these two variables was 2.40 (the t-statistic is greater than 1.96), indicating a positive and significant relationship in this regard. The results confirm that 6.76% of changes in the online trust of customers are predicted and explained by security and privacy. Empirical studies also confirm this result. In this regard, the study by Toufailya and Pons (2017) examined customer website features on online relationships in the stock brokerage industry. They showed that security and privacy positively and significantly affect the online trust of customers, which is consistent with the results of the present study.

The results revealed that website design positively and significantly affects the online trust of customers. In this study, the website design variable directly affected the online trust of customers, and the t-statistics of these two variables was 3.30 (t-statistics greater than 1.96), indicating a positive and significant relationship. The results confirm that 12.25% of changes in the online trust of customers are predicted and explained by website design. Empirical studies also confirm this result. In this regard, Toufailya and Pons (2017) examined the impact of customer website features on online relationships in the stock brokerage industry. They showed that website design positively and significantly affected the online trust of the customers. This result is in line with the results of the present study.

Based on the results, it can be stated that the customization of the website positively and significantly affects the online trust of customers. In this study, the website customization variable has a direct effect on the online trust of customers, and the t-statistics of these two variables is 2.11 (t-statistics greater than 1.96), indicating a positive and significant relationship. The results confirm that 2.89% of changes in the online trust of customers are predicted and explained by website customization. Toufailya and Pons (2017) examined the impact of customer website features on online relationships in the stock brokerage industry. They showed that customization has had a positive and significant impact on the online trust of customers. Their results are consistent with the results of the present study. Also, Liao (2011) examined the impact of the quality of banking services with the components of trust in banking services, honesty in providing banking services, customization, and observing banking customs on customer satisfaction and loyalty in the system in Malaysian banking. The results showed that customization affects loyalty.

The results revealed that the quality of website support positively and significantly affects the online trust of customers. In this study, the website support quality variable has a direct effect on the online

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trust of customers, and the t-statistic of these two variables is 2.28 (the t-statistic is greater than 1.96), indicating a positive and significant relationship. The results confirm that 4% of the changes in the online trust of customers are predicted and explained by the quality of website support. A study by Toufailya and Pons (2017) examined the effect of customer website features on online relationships in the stock brokerage industry. The results showed that the quality of website support positively and significantly affected the online trust of customers. Their results are consistent with the results of the present study.

Based on the results, it can be stated that the virtual community of the website positively and significantly affects the online trust of customers. In this study, the variable of the virtual community of the website has a direct effect on the online trust of customers, and the t-statistics of these two variables is 2.13 (t-statistics greater than 1.96), indicating a positive and significant relationship. The results confirm that 3.61% of the changes in the online trust of customers are predicted and explained by the virtual community of the website. Toufailya and Pons (2017) examined the customer website features on online relationships in the stock brokerage industry and showed that the virtual community of the website positively and significantly affected the online trust of customers. Their results are consistent with the results of the present study.

Based on the results, it can be stated that the online trust of customers positively and significantly affects online loyalty. In this study, the variable of online trust of customers directly affected the online loyalty of customers, and the t-statistic of these two variables was 14.81 (t-statistic is greater than 1.96), indicating a positive and significant relationship. The results confirm that 51.84% of the changes in the online loyalty of customers are predicted and explained by the online trust of the website. Toufailya and Pons (2017) examined the customer website features on online relationships in the stock brokerage industry and Rezai Dolatabadi et al. investigated the relationships between quality, trust, satisfaction, and online loyalty in the hotel industry. They showed that the online trust of customers had a positive and significant effect on customer loyalty, which was in line with the results of the present study.

Gracia et al. reported that other factors such as perceived value and satisfaction had a positive and significant impact on customer loyalty. It is recommended for officials and brokers of the stock exchange take the necessary measures to make the customers comfortable and guide them in the direction of searching on the website. They are also recommended to take the necessary actions for simpler and easier tasks for the customers. It is recommended to stock exchange officials and brokers take measures to create security in buying and selling and also include measures to protect the financial and personal data of customers or investors and ensure the security of their payments. It is also recommended to these officials and brokers design a beautiful and attractive website that is excellent and suitable in all aspects.

It is recommended to stock exchange officials and brokers take measures to establish regular and continuous communication with online brokers to meet the needs and demands of customers. Also, taking measures such as creating a sense of uniqueness in the customer during buying and selling can create trust and security in the customer. It can be recommended to these officials and brokers take measures to establish centers to solve technical and system problems and also take an effective step by attracting suitable and active employees in the field of providing customer services. Based on the results, it can be recommended to stock exchange officials and brokers take measures to create a safe space between trust and confidence in the exchange of information between members as it can lead to a greater commitment of investors and ultimately their loyalty. Additionally, the creation of virtual space can improve decisions in micro and macro investments and the exchange of one's experiences about capital and stocks with other customers. It is recommended to website managers pay more attention to the factors affecting customer trust, such as fulfilling commitments and promises, and

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more credibility. They are also recommended to necessary efforts to solve customers' problems and issues since a customer who trusts is more satisfied with the website. Thus, providing timely and accurate information and designing a safe and comfortable system for the customer leads to more trust and increases satisfaction. The present study results were related to a specific period that the information was collected based on that period and the passage of time may change these results.

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