

A Model for Consumer's Perceptions from the Quality of the Relationship, Security, and Loyalty in e-Commerce

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Today, in the business market, the communication between service providers and customers is given considerable attention, so that the academic sector and its employees have eagerly accepted it. Communication, both practically and theoretically, lacks an obvious definition. A loyal customer must be considered as a valuable source of information that helps the company to design better plans for the future. Hence, loyal customers typically provide more value to the company. The researcher presents a model for consumer's perceptions from the quality of the interface, security, and loyalty in e-commerce at a case study of the Saderat Bank. The statistical population of the research consisted of customers of the Saderat Bank in Iran. The non-random sampling method was employed while the data was collected using a questionnaire. This research used an applied approach, and Amos software in a structural equation was used for data analysis. The results indicate that customer relationship quality is effective for customer satisfaction, perceived security, replacement cost, and loyalty. In terms of indirect effect, a significant and positive correlation was seen between the quality of the relationship and customer loyalty.

Key words: *Relationship Quality, Customer Loyalty, Replacement Cost, Perceived Security, Customer Satisfaction.*

Introduction

A loyal customer must be seen as a successful sales force that helps the company to design better plans for the future. Hence, loyal customers typically provide more value to the company (Badara et al., 2013, p. 2). Anderson and Mitale (2000) argue that loyal customers often bring considerable revenue for the companies and they need less time and attention (Yang & Patterson, 2004, p. 4). Consequently, it will be useful to investigate the factors affecting customer loyalty, considering the current competitive conditions of the industry and the impact of customer loyalty on profitability and as a sustainable competitive advantage for the Saderat Bank. Customer loyalty leads to an increase in market share, the investment return, and higher profitability for service organisations (Baghlou, 2002, p. 48). Today, communication is not enough to win loyal customers, but the quality of communication is very important. The quality of the relationship depends on customer perception from interactions among the personnel and their behaviour with customers. New studies about these communications show how each of these said factors can create opportunities for managers and lead them to design and implement relational marketing strategies. Most marketing research indicates the importance of relationships' quality through security, satisfaction, and cost of replacement. Customer relationship is one of the best ways to increase the value of service companies.

Moreover, to enhance customer's loyalty to the organisation and meet the needs of customers in the service sector, relational marketing can be used to increase customer benefits. This research investigates the effect of customer relationship quality on customer's perceived quality and loyalty. Due to the reasons mentioned above and the novelty of research and usefulness of results for managers and decision makers sector, this shows the importance of the research.

Literature review

Customer Loyalty

Oliver (1999, p. 2) indicates "Loyalty is a strong commitment to re-purchase an updated product in the future, with the same brand". Customer loyalty is the basis of competitive advantage, which effects the company's performance, and is evident in customer's behaviours since s/he is satisfied with the personnel and recommend it to other customers. Martenson et al. (2000) state four aspects of customer loyalty: 1) Re-purchasing 2) The desire to recommend the company or brand to others. 3) Tolerate price changes. 4) The customer's willingness to purchase other products of the company (Abolsamen et al., 2012, p. 6). Many researchers consider customer loyalty as a two-dimensional instrument that includes attitude

and behaviour (Oliver, 1999). Some others consider it as a combination of attitude and behaviour (Solomon et al., 2006).

Relationship Quality

In the business market, much attention has been paid to the communication between service providers and customers and many academic persons and employees in this field have accepted this issue. The communication, both in theoretical and applied field, lacks an obvious definition. Barones (1997) states that when the relationship is created through continued communication, at least two intervention factors are needed to create a relationship as a result of service purchases. He states that before the relationship is established, both parties must mutually recognise the existence of the relationship, and the relationship must be determined by a particular state (Wang & Sohel, 2002, p.438). Customer relationship has attracted many researchers and marketing activists. Increasing the emphasis on relational marketing results in customer satisfaction, customer references, trust, and oral advertising of customers. Relational marketing has priority over exchanging marketing to build long-term relationships based on trust and mutual benefit with valuable customers. The satisfaction of the customer is essential for establishing loyalty and relationship. Long-term communication with the client takes place over time. Maintaining the created relationship requires more effort. The level of commitment of the parties to the relationship is very important in the success of the communication. To maintain a relationship with the customer, creating reliability about services is important. If the customer feels that he can rely on the stability of the services, then the communications will be continuous and longer (Sheet et al., 2007). Trust is another factor which is the goal of the company to build long-term relationships to gain customer confidence. Therefore, customer satisfaction, commitment, and trust are the factors of successful communication. Satisfaction with the client's emotional state is based on his overall assessment of the received service. In a similar structure, trust is confident in the trustworthiness of the trading partner and the belief that the service provider or seller acts on his promise. Commitment refers to the will of the customer in maintaining the relationship and encourages both sides to shift from short-term benefits to long-term benefits. As the relationship progresses, the two parties get more confident and dependent on each other, which leads to a commitment to the relationships. Henning and Tara (2002) state that commitment, satisfaction, and trust are highly interconnected (He et al., 2011; Ayebo & Mrutu, 2019; Semin & Kurdyumov, 2018).

System Security

An important variable is the acceptance of electronic services between users. Security has a meaningful relationship with the tendency to conduct behaviour, and adding the security factor to technology acceptance models increases the explanation of the tendency to behave

in users (Soleimani Bashli, 2011). The computer's effectiveness or the self-efficacy of using a computer means a person's ability to use a computer. Compu and Hugins showed that self-utilisation of computer use is the main factor in using information systems (Nasri, 2012).

Customer Satisfaction

Over the last four decades, satisfaction is one of the most important theoretical issues, for marketers and researchers. Despite the several definitions for satisfaction, it refers to the purpose the consumer wants to achieve. "Satisfaction is a judgment before a decision is made in a particular exchange, which can be directly referred to as a general sense, well defined as perceived quality performance" (Pera Surman et al., 1985). In the marketing literature in the service sector, satisfaction is commonly referred to as a cognitive phenomenon, recognising as a non-consensual paradigm that reflects the expectations that arise from customer beliefs about the level of performance that a service or product provides. (Oliver, 1999).

Replacement Costs

The definition of the company's replacement cost is the cost of disconnecting from the current supplier and communicating with another supplier (Hyde & Weiss, 1995). A company's replacement costs include both monetary and non-monetary costs (for example time spent and psychological effort) (Dick & Basou, 1994). These costs also include the loss of the benefits of loyalty to the customer as a result of the termination of the existing relationship (Hyde & Visice, 1995). For example, familiarity with the work processes of a service provider forms a type of company's replacement cost (Wang, 2010, p. 3). Yang and Patterson (2004) argue that the moderating role of company replacement costs about the perceived value with customer loyalty, is only important when the perceived value level is above average. "If the company's replacement cost is high, the customer retains its relationship with the service provider regardless of the value of the service. Therefore, if the company's replacement cost is high, the perceived value-added communication and customer loyalty are negligible. Conversely, with low company replacement costs, a low value can lead to the customer's disconnection with the service provider. The company's replacement cost may reduce the relative importance of value in the customer's intention to re-purchase "(Wang, 2010, p. 3: Talebi & Nejad, 2019).

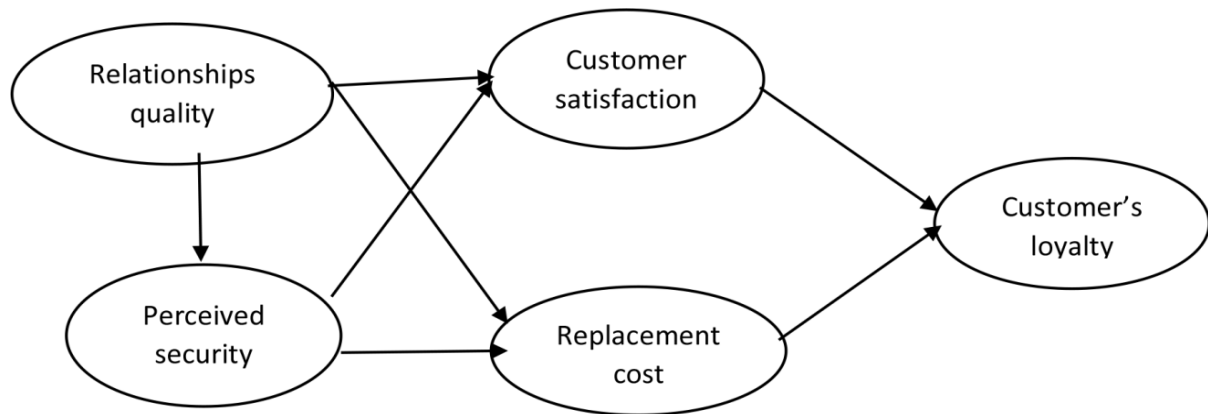
Research Hypotheses

- The quality of the relationship has a significant impact on customer satisfaction
- The quality of the relationship has a significant impact on perceived security
- The quality of the relationship has a significant impact on the cost of replacing
- Perceived security has a significant impact on customer satisfaction

- Perceived security has a significant impact on replacement costs
- Customer satisfaction has a significant impact on customer loyalty
- Replacement cost has a significant impact on customer loyalty

A conceptual model of research

Research Conceptual Model



Methodology

This research is a quantitative one with an applied approach. The research method is also descriptive-correlational. The statistical population of the research consisted of customers of the Saderat Bank in Iran. To determine the sample size, according to the unlimited sample size (according to the Cochran formula, 384 people) are selected, and the sampling method is simple random. The questionnaire is based on the literature review of the research, and the validity and reliability of all of them have been tested. For content validity of the questionnaire, attitudes of the elites and experts in this field have been applied, and for validity, confirmatory factor analysis is used. To test the reliability of the tool, Cronbach's alpha method is used, which in Table 1 show that all dimensions have acceptable reliability (above 0.7).

Table 1: Cronbach's Alpha Variables

Variable	Cronbach's alpha coefficient
Relationship quality	85%
Perceived security	78%
Customer satisfaction	90%
Replacement cost	86%
Customer loyalty	89%
Whole questionnaire	90%

Divergent Validity

In the divergent validity, the difference between the indices of one structure is compared with other structural indices in the model, calculated by comparing the square root AVE of each structure with the values of the correlation coefficients between the structures. To do this, a matrix must be formed where the values of the main diameter of the matrix of the root are the AVE coefficients of each structure, and the lower values of the main diameter are the coefficients of correlation among each structure with other structures.

Table 2: AVE coefficient Matrix and Correlation Coefficients of Structures

	Product knowledge	Perceived risk	Customer's satisfaction	Repurchasing decision
Product knowledge	0.865			
Perceived risk	0.474	0.833		
Customer's satisfaction	0.375	0.508	0.836	
Repurchasing decision	0.337	0.387	0.342	0.756

As indicated above, the square root of AVE of each structure has increased its correlation coefficients with other structures, which suggests the acceptability of divergent constructive validity.

Research Findings

First, structured equation techniques and Amos software for analysing the data are used. Considering the limitations of paper only the structural model of the research hypothesis is presented.

Figure 1: Structural Equation Model 1

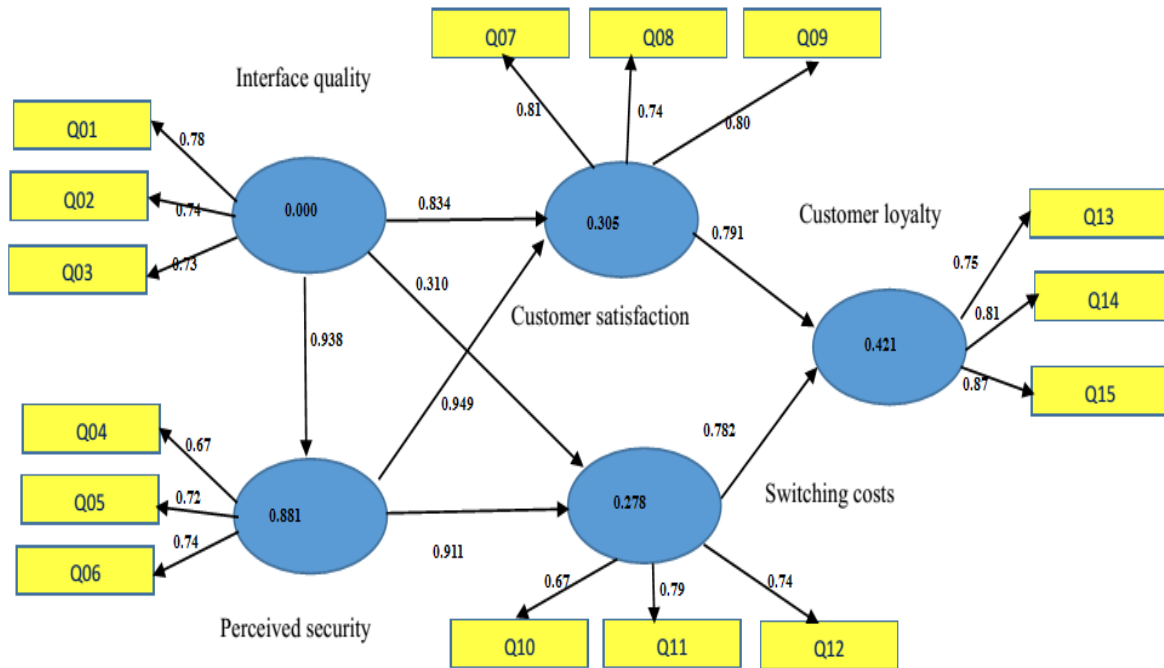
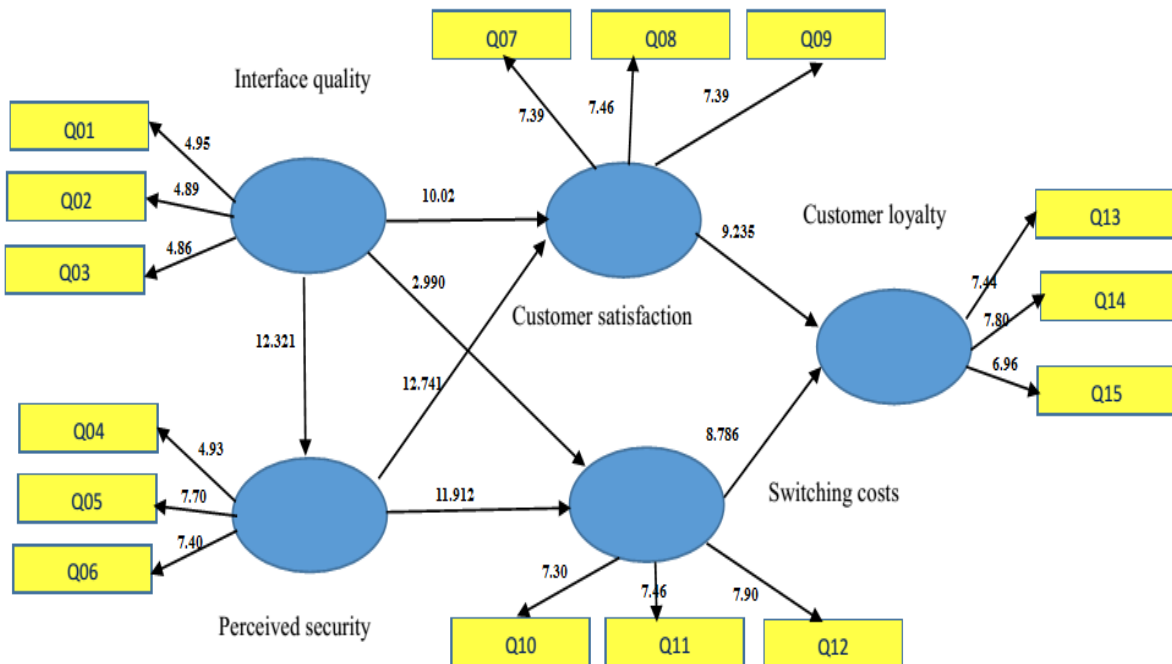


Figure 2: Structural Equation Model 2



Amos software calculates all direct and indirect path analysis and presents them in a total effects table. Therefore, the value of the relationship and the meaningfulness of all the variables are presented in the table below.

Table 3

Research hypothesis	Relationship	T statistics
The quality of the relationship has a significant impact on customer satisfaction	0.834	10.02
The quality of the relationship has a significant impact on perceived security	0.938	12.321
The quality of the relationship has a significant impact on the cost of replacing	0.310	2.990
Perceived security has a significant impact on customer satisfaction	0.949	12.741
Perceived security has a significant impact on replacement costs	0.911	11.912
Customer satisfaction has a significant impact on customer loyalty	0.791	9.235
Replacement cost has a significant impact on customer loyalty	0.782	8.786

Evaluation of Model Fit

After modelling and estimating its parameters, the first fundamental question is whether the measurement model is suitable. The answer is, it is only possible through the study of fitness. The purpose of the fitting model is to ascertain the extent to which a model is compatible with the relevant data (Kalantari, 2009, p. 127). When a model is precisely characterised, its estimation and testing is feasible; then there are many indexes for evaluating its fitness, the most important of which are given in the following table:

Table 4: Indexes of fitness on the model's price

RMSEA ¹	RMSEA<0.08	0.073
NFI ²	NFI>0.90	0.94
NNFI	NNFI>0.90	0.90
IFI	IFI>0.90	0.92
CFI ³	CFI>0.95	0.98
GFI ⁴	GFI>0.90	0.93
AGFI ⁵	AGFI>0.85	0.88
RMR	RMR<0.75	0.058

The most common reported indexes for most researches are listed in the above table. If one of these indexes is not acceptable, it does not reject the model, but rather shows a relative weakness of the model, which may result from sampling, sample population, or other factors. The presented indices and comparison with the optimal value for a fitted model show the fitting of the research model. A remarkable point in fitting the model is that, while fitting the structural model of the model, it does not always prove that the model is the only valid model.

Conclusion

The findings of this study confirm the impact of customer relationship quality on perceived quality and customer loyalty. Attention and emphasis on the quality of customer relationship and its management in the service sector are so important. A suitable relationship brings many benefits to service organisations. The loyalty of more customers increases organisation capacity in critical situations, higher profit margins, customer perceived quality, and positive reaction of customers for buying and introducing to others. Based on the hypothesis, the quality of customer relationship through the customer perceived security interface varies with greater loyalty. The relationship between perceived security as part of the quality of customer relationship and loyalty has been considered in numerous studies; gaining security is the main factor leading to loyalty. When the customer assures the service provider, s/he continually uses it and advises it to others. Security reduces client' fear in trading and is the most important variable in the quality of the relationship. Adin and Ozer (2005), Chadhiri and Holburk (2001) confirmed the impact of trust on loyalty concerning behavioural and attitudinal loyalty.

¹Root Mean Square error of Approximation

²Normed Fit Index

³Comparative Fit Index

⁴Goodness of Fit Index

⁵Adjusted Goodness of Fit Index



There is a positive and strong relationship between customer loyalty and satisfaction, and satisfaction is a prerequisite for loyalty. Creating loyalty will be easier if the service provider can provide and satisfy customers' needs better than competitive ones. Araskousin et al. (2010) argue that commitment like trust is one of the most important variables in assessing the level of power relations and emphasises the positive impact of trust and commitment on customer loyalty. Bujie and Eloy (2010) suggest in the service sector that customer satisfaction, commitment, and trust have a positive impact on loyalty. Chion and Dorje (2006) and Floe & Trilblemer (2006) show the significant impact of customer loyalty and satisfaction. Kim et al. (2008) emphasise the impact of customer satisfaction and trust on brand loyalty in the service sector, and efforts to build trust and satisfaction in the customer. The results of the assumptions are in line with the achievements of the studies and confirm obtained results by other researchers regarding the impact of customer relationship quality on his/her loyalty.

In this research, the role of the company's replacement cost is confirmed by the relationship between the quality of the relationship and perceived security and customer satisfaction with customer loyalty. In Wang's research, the impact of the company's replacement cost modification was confirmed in the relationship between customer service quality and client loyalty. Confirmation of these hypotheses can mean that with the presence of the company's replacement cost variable, the quality of service is adjusted to customer loyalty, and if the replacement costs are high, even if the quality of services is slightly reduced, the customer may continue to connect with the service provider. This research shows the role of the company's replacement cost in customer loyalty to service providers.



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