

Modelling and Testing Consumer Trust Dimensions in E-Commerce (Case Study of Iran: Digikala Online Store)

Hasan Soltani

*Department of Management, Faculty of Management and Economy, Shiraz branch,
Islamic Azad University, Shiraz, Iran*

*Fatemeh Enjavi Hosseini**

*Master of Business Administration, Electronic Commerce, Shiraz branch, Islamic Azad
University, Shiraz, Iran.*

ABSTRACT

In e-commerce, the purchase and sale of products and services is via the Internet, especially Internet portals. The studies indicate that trust has a significant role in increasing consumers' purchase intentions. In this empirical study, a conceptual model of path analysis was proposed to help online marketers to increase their customer trust. The model presented in the study measured the three main dimensions of trust: competence, integrity and benevolence, and measures the overall effect of consumer trust. Moreover, the study analyzed how various sources of trust - consumer characteristics, firms characteristics, and website infrastructure and consumers interaction - affect the dimensions of trust. The study was applied in terms of purpose and descriptive-survey in terms of method where data collection was through a questionnaire. The population was the customers of Digikala online store – as a famous online store in Iran – of whose customers living in Shiraz, 386 were selected as the sample. Data analysis was done using structural equation modeling (SEM) and factor analysis methods. The results indicated that the higher the level of consumer confidence, the higher the intention to purchase online would be.

Keywords: E-commerce, Trust, Competence, Integrity, Benevolence

Introduction

E-commerce is a new knack of doing business electronically using the network and the Internet. In this method, the purchase or exchanging products, services and information is done through computer and telecommunication networks like the Internet, whose important platform is e-shops (Dayal, Landesberg & Zeisser, 1999). The Internet, which is one of the most important applications of the computer in the modern age, has changed conducting business and social exchanges by removing national borders and presenting 24-hour services to people around the world. In recent years, e-commerce has become one of the most accepted purchasing systems, one of the easiest ways to reach a large variety of products (Mohanna, Yaghoubi, Vahidi Motlaq & Vahidi Motlaq, 2011). In Iran too, given the increase in the use of the Internet, e-commerce and online shopping done through different portals is expanding as time goes on. The first and most significant step is to plan to identify barriers to using e-commerce to succeed in the world and e-commerce. Perhaps one of the biggest barriers to the establishment of e-commerce in Iran is the distrust of the people on the one hand and the unfamiliarity of institutions active in this area with trust-building mechanisms (Khodadad Hosseini, Shirkhodai and Kordnajib, 2009).

Trust is acknowledging the vulnerability of the one who trusts. In other words, trust crystallizes only when the environment is insecure and full of danger and the one who trusts is willing to make him vulnerable or in other words accept risk. Given the complexity and risk of e-commerce, sellers can behave in unpredictable ways on the Internet. As Gefen states, even when the Internet users only browse the Internet and do not buy from it, they still give data and information is automatically collected from their activities that can be exploited later (Gefen, 2002).

Unlike traditional business - in the online purchase process, the buyer and seller do not see each other during the business exchange, and because customers do not know what uses of the information obtained from them during the buying process and due to lack of ensuring that the goods or services received match what they have been promised, and also that most of these customers consider online stores to be unknown, unreliable and unreliable due to concerns about damage to the goods during the transfer period (Sanaei, Pour Mostafa, Ghazi Fard and Nasirzadeh, 2012). Studies indicate that distrust is the most significant barrier to building consumer relationships with online retailers. Successful managers have concluded that making the customer loyal and keeping them in their customer portfolio will only be possible in the light of gaining their trust in the organization (Sheikhi, Shafei and Farouqi, 2014). Thus, identifying the dimensions of trust is a significant element that can lead to the development and growth of e-commerce and motivate the customer to make online purchases to do business.

Theoretical literature review

The factors that may affect the dimensions of consumer trust in e-commerce are identified as follows in the study:

Consumer characteristics

In this study, consumer characteristics include two components of trust and attitude towards online purchase.

Trust stance

Trust is a psychological state that the parties of the transaction have towards the continuation of their business relationship or the achievement of a predetermined goal. When people trust each other in a deal, it means that they will keep the promises they made throughout their business relationship. Each party to the transaction has to take a little risk in their business. In the virtual space of the market, the buyer and the seller do not see each other face to face. The buyer often sees a picture of the product to be traded, not the product itself. Overall, the vendors in e-commerce are obliged to try to maintain the trust of their business partners (Fathian and Molanapour, 2017).

Attitude towards online shopping

Attitude is considered to result from individual beliefs regarding behaviour and its consequences and the importance that is given to these beliefs, and thus consumers' attitudes towards e-commerce are influenced by the degree to which they consider online shopping to be a good experience (Crespo & Bosque, 2010).

Firms characteristics

In this study, firms characteristics has two components of brand reputation and identity.

Reputation

Organizational reputation is more than just the mental image and identity of the company. Reputation can be defined as the sum of customers' evaluations of the company's behavior and past results, which describes the company's ability to provide value and benefit to its multiple stakeholders (Cravens & Oliver, 2006). On the other hand, one of the most important assets is the reputation and credit that the company has among its customers. Positive organizational reputation is a critical element factor in successful organizational relationships with customers that can have a tremendous effect on the financial performance of businesses (Ewing, Caruana & Loy, 1999).

Brand recognition

The process of creating a brand recognition is formulating the mindsets that the brand wants to create and ensure that the customer knows the brand and its relationship with a particular part of the customer needs (Keller, 2003).

Indeed, the consumers are exposed to realities that are created by the firm, and they may consciously or unconsciously select facts that are compatible with their configuration of attitudes and beliefs, and these facts are retained and thereafter retrieved from memory to reconstruct an image when the firm is brought to mind, which reveals brand recognition (Nguyen & Leblanc, 2001).

Website infrastructure

In this study, website infrastructure includes two components: lack of integrity, privacy and security, and website being loved.

Lack of integrity, privacy and security

Marketing researchers have stated that perceived risk affects purchase behavior, because for many people, web-browsing feels safe. However, transacting on the Internet is a vast landmine, where there is no integrity among the internet vendors, and the web environment has no privacy or security, thus inviting disaster. This results in perceived risk, which equates to the extent to which a user believes it is unsafe to use the web, or that negative consequences are possible, which explains that lack of integrity, privacy and security, which all negatively affect consumers' intentions to transact with a web-based vendor. However, in the meantime, the ability of Internet companies to build trust and make real and honest promises that will benefit consumers from the purchase will reduce the feeling of insecurity and privacy among customers too (Mcknight, Choudhury & Kacmar, 2002).

Website likability

The likeability of a website involves the ease with which the user can learn to manage the system and can memorise the basic functions, the efficiency of the site's design, the degree of error avoidance, and the general satisfaction of the user (Flavian, Guinalau & Gurrea, 2006). General usability of a website has an impact on the establishment of trust (Roy, Dewit & Aubert, 2001), and if customers satisfied with the website, then their intention to purchase increase (Chang, Cheung & Lai, 2005). Researches indicate that as websites serve as the interface for the e-commerce system, likability studies have largely addressed e-commerce website design, with a particular focus on ease-of-use and user-friendliness, whilst information quality is a key feature that influences user satisfaction and loyalty towards e-commerce (Huang & Benyoucef, 2013).

Interactions

In this study, the interactions include two components of service quality and customer satisfaction.

Service quality

Service quality refers to the level of user satisfaction with the service provided by the online shopping website (Ahn, Ryu & Han, 2007). Service quality includes providing online services and offline support (Delone, 2003; Delone & Mclean, 2004). The quality of electronic services can be defined as the customer's overall evaluation and mentality about the advantage and quality of electronic services in the virtual market (Sanaei, Pour Mostafa, Ghazi Fard and Nasirzadeh, 2012). Indeed, online shopping does not need face-to-face contact, but what is critical is the quality of services or products provided to the customer (Ahn, Ryu & Han, 2007).

Customer satisfaction

Some people consider customer satisfaction psychologically as an emotional result of comparing the product specifications received with the needs and wants of customers and social expectations about the product or service (Kavousi and Saghaei, 2005). Indeed, customer satisfaction measures the extent to which customer expectations about a company's products or services are met. Moreover, customer satisfaction is an abstract concept where the factors like product quality, service quality, product supply or service space, product price and time issues (waiting time for payment and delivery time) are involved (Sanaei, Pour Mostafa, Ghazi Fard and Nasirzadeh, 2012). Finally, overall customer satisfaction is the process of evaluating and mentality the customer from the last purchase position and his contact with the manufacturer of the service or product (Bitner & Hubbert, 1994).

Dimensions of consumer trust

Various factors for the dimensions of trust have been suggested by scholars. For instance, Chen & Dhillon (2003) proposed in their research that competence, integrity and benevolence are all dimensions

of trust in an Internet vendor. These three dimensions of trust vary independently, but are all interrelated and they jointly contribute to overall consumer trust (Chen & Dhillon, 2003).

Perception of competence

One of the dimensions of trust in an Internet vendor. Competence refers to companies' ability to fulfil promises made to consumers. (Chen & Dhillon, 2003).

Perception of integrity

It is one of the dimensions of trust in an Internet vendor. Integrity suggests that a company acts in a consistent, reliable and honest manner. (Chen & Dhillon, 2003).

Perception of benevolence

It is one of the dimensions of trust in an Internet vendor. Benevolence is the ability of a company to hold consumer interests ahead of their own self-interest, and indicates a sincere concern for the welfare of customers. (Chen & Dhillon, 2003).

Overall trust

Trust can be examined from different perspectives like socio-economic, institutional-behavioral, psychological, organizational management and technology aspects (Kim, Ferrin & Rao, 2008). However, the issue of trust as a concept is one that does not have a universally accepted definition. Although many have tried to conceptualize trust, there is no single way to evaluate the value of trust. On the other hand, distrust itself is a useful state of mind that enables us to seek out unreliable and unhealthy systems or individuals and organizations. Trust is defined as the degree of sensitivity of one party to the behavior of the other, according to which the trusted party is expected to do certain activities important to the trusting party, without being able to monitor or control him (Zhu & Gee Chen, 2012). When looking specifically at the online context, trust is defined as one's attitude of confident expectation regarding an online situation of risk whereby one's vulnerabilities will not be exploited (Beldad, Jong & Steehouder, 2010). For e-vendors, it is therefore critical to promote trust, in order to transform a potential consumer from being a curious observer, to becoming one who is willing to transact via the site (Mcknight, Choudhury & Kacmar, 2002), and who does not desist before confirming their purchase (Chau, Hu, Lee, & Au, 2007).

Online intention to purchase

Intention is a significant factor in the structure of attitude and can predict actual behavior. The more you want to buy, the more likely you are to buy. Intention to purchase is therefore the most important predictor of purchase behavior (Lin & Liao, 2012). The intention to purchase of a particular product as a good predictor is the actual behavior in buying the product recognized by actual customers. Intention to purchase is used to identify the likelihood of purchasing products over a period of time (Dehghan, 2006). Online intention to purchase as an important variable that determines the behavior of the final purchase, is itself a consequence of evaluating criteria like the quality of the website, information search and product evaluation by the customer. Indeed, online intention to purchase shows the customer's desire to shop online (Poddar, Donthu & Wei, 2009).

Empirical literature review and research model

Kamali and Khalili (2012) conducted a study entitled "The factors affecting customer confidence in electronic banking." They selected the internet banking customers of Bank Saderat in Yazd as the population. The results of this study showed that the priority of the dimensions of system trust, socio-economic influence, self-efficacy, individual dimensions and website dimensions have the most positive effect on customer trust, respectively. Agha Pourhasiri and Afghanpour (2015) conducted a study entitled "Examining the effect of customers' trust in e-commerce on online purchase of insurance services." They selected a sample of 400 online shopping customers of selected insurance branches in Iran in Mazandaran. The results indicated that the dimensions of customer trust in e-commerce have a significant effect on online insurance purchase in the mentioned agencies, which have the highest impact, respectively: corporate factors, infrastructure factors and individual factors. Hyun Shik & Luis (2015) have evaluated a study entitled "Influencing factors of trust in consumer-to-consumer electronic commerce with gender and age." They have a natural tendency towards trust as a personality, to understand the quality of the website as a feature of the website, to trust buyers and sellers as an interpersonal transaction perspective, to recognize a third party as an organizational attribute as factors

influencing trust offered. The results indicated that understanding the quality of the website and third-party recognition affect trust in C2C e-commerce. Alsaad et al. (2017) conducted a study entitled “The moderating role of trust in business to business electronic commerce (B2B) adoption.” The study was conducted on 239 supply chain managers in Jordan and their analysis showed that the mediating approach of trust is significant in the direction that the degree of acceptability is understood. Moreover, their results clearly showed that the relationship between trading partners was not flexible enough to absorb new technology.

Hallikainen & Laukkanen (2018) conducted a study entitled “Notional culture and consumer trust in e-commerce”. The study used 616 examples of online bookstore customers from China and Finland, most of whom were university library visitors with an average age of 23 years. The results indicated that not all effects of intercultural dimensions and reliability are caused by the desire for trust, but also national culture can directly affect the perception of reliability of an online sale.

In this research conceptual model is present in Figure (1) we are used a conceptual model that was introduced by Oliveira et al. (2017), and has four sources of consumer trust, consumer characteristics, firms characteristics, website infrastructure and interactions. Sources of consumer trust affect the dimensions of consumer trust that are perception of competence, integrity and benevolence of the online seller that affects the overall trust of a consumer and thus his online intention to purchase.

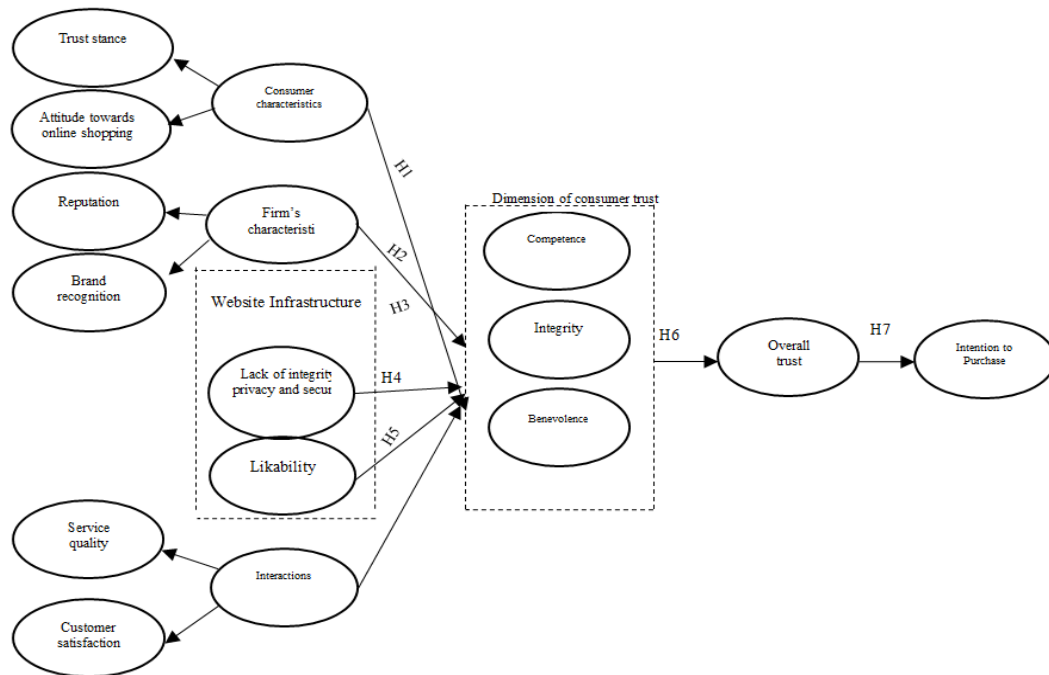


Fig. 1: Conceptual model

According to the theoretical framework, the study hypotheses are presented as follows:

Hypothesis 1: Consumer characteristics a positive effect on the perceptions of competence, integrity and benevolence of an Internet vendor.

Hypothesis 2: Firms characteristics a positive effect on the perceptions of competence, integrity and benevolence of an Internet vendor.

Hypothesis 3: Lack of integrity, privacy and security of website infrastructure has a negative effect on the perceptions of competence, integrity and benevolence of an Internet vendor.

Hypothesis 4: The website infrastructure likability has a positive effect on the perceptions of competence, integrity and benevolence of an Internet vendor.

Hypothesis 5: The interactions between consumers and the company have a positive effect on the perceptions of competence, integrity and benevolence of an Internet vendor.

Hypothesis 6: Perceptions of competence, integrity and benevolence of an Internet vendor has a positive effect on overall consumer trust.

Hypothesis 7: The overall trust of Internet vendor has a positive effect on the consumer's online intention to purchase.

Methods

The study was applied in terms of purpose, as its results can be used to solve the problems of organizations. In terms of the nature and method, it is a descriptive-survey of correlation type, as it tries to get information about the status quo of the sample using a questionnaire. It was cross-sectional in terms of time, and quantitative regarding data type. The data was analyzed using SEM and factor analysis.

Data collection

In this paper, we use a questionnaire that was proposed by Oliveira et.al. (2017) to collect data. After studying the related papers and extracting possible indices and components based on the hypotheses, a questionnaire with 52 questions was prepared based on the indices in the literature. Using non-random sampling method and available people, the sample size was obtained. To this end, the customers of Digikala online store were selected as the population. The questionnaire questions were designed based on a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree) distributed in person among the respondents. Finally, the data of 386 questionnaires from the customers of this online store were the base of analysis.

Reliability and validity of measurement

Confirmatory factor analysis was used to examine the internal structure of the questionnaire and determine its validity, and both content validity and convergent validity were assessed. Regarding this, the questions designed for the questionnaire were approved by a number of marketing experts in terms of content validity. Moreover, factor validity test of the questionnaire was performed as a confirmatory factor analysis to ensure the relationship between each of the indicators with its variable in AMOS software. According to the results in Table 1, the factor loading of the indices was more than 0.5, confirming the high validity of the questionnaire. Ultimately, the convergent validity of the study was evaluated using the average variance extracted (AVE). As Fornell & Larcker (1981) consider the values more than 0.5 acceptable for average variance extracted, the average variance extracted for all variables was more than 0.5 in the study.

The reliability of the questionnaire was evaluated by two common standard criteria of Cronbach's alpha and composite reliability (CR). Cronbach's (1951) proposed a standard more than 0.7 for alpha. Bagozzi & Yi (1988) reported a standard greater than 0.6 for CR. According to the results in Table 1 and the standards stated, the reliability of the study is acceptable.

Table 1: The results of reliability evaluation tests and factor analysis

Variable	Index	Cronbach alpha	CR	AVE	Factor loading
Consumer characteristics	I like to use the web site of this online vendor. I like the layout of the web site of this online vendor. I like the idea of (... using the Internet to purchase in the next 6 months ...) (Using the Internet to purchase in the next 6 months ...) is a wise idea. (Using the Internet to purchase in the next 6 months ...) is a good idea. (Using the Internet to purchase in the next 6 months ...) is a positive idea.	0.588 0.541 0.819 0.777 0.816 0.725	0.849	0.511	0.703
Firms characteristics	Has a good reputation in the market. Has a reputation for being honest. Has a reputation for being consumer-oriented. In my opinion, ABC has a good image in the minds of consumers. In general, I believe that ABC always fulfills the promises that it makes to its customers. I would encourage friends and relatives to do business with ABC.	0.618 0.701 0.679 0.842 0.576 0.600	0.806	0.589	0.660
Website infrastructure	Entering credit card information over the Web is unsafe. I think it is risky to provide one's credit card information to web-based vendors. I hesitate to enter my credit card information on the web. Entering personal information over the web is unsafe. I think it is risky to provide one's social security number to web-based vendors. I would hesitate to enter personal information like my name, address and phone number on the web. In this website everything is easy to understand. This website is simple to use, even when using it for the first time. It is easy to find the information I need from this website. The structure and contents of this website are easy to understand. It is easy to move within this website. The organization of the contents of this site makes it easy for me to know where I am when navigating it. When I am navigating this site, I feel that I am in control of what I can do.	0.709 0.773 0.814 0.816 0.729 0.679 0.657 0.861 0.668 0.658 0.654 0.677 0.577 0.573	0.923	0.691	
Interactions	The time I spend in order to shop at this online vendor's site is highly reasonable. The effort involved in shopping at this online vendor's site is worthwhile. The shopping experience at this online vendor's site is excellent. I found significant value by shopping at this online vendor's site. Overall, I am satisfied with this online vendor. I did the right thing when I decided to use this online vendor. I am very pleased with making purchases from this online vendor.	0.530 0.551 0.612 0.864 0.633 0.668 0.670	0.806	0.511	0.602
Dimensions of consumer trust	I believe this online vendor has the ability to handle sales transactions on the Internet. I believe this online vendor has sufficient expertise to do business on the Internet. I believe this online vendor will not charge more for Internet shopping. I believe this online vendor is honest to its customers. I believe this online vendor acts sincerely in dealing with customers. I believe this online vendor will not overcharge me during sales transactions. I believe this online vendor is truthful in its dealings with me. I believe this online vendor would keep its commitments. I believe this online vendor is genuine. I believe this online vendor would act in my best interest. If I required help, I believe this online vendor would do its best to help me.	0.601 0.648 0.584 0.703 0.898 0.705 0.667 0.679 0.540 0.587 0.564	0.883	0.590	0.727
Overall trust	I like to trust this online vendor. I find this online vendor trustworthy. I like the reliability of this online vendor. I value the trustworthy characteristics of this online vendor.	0.704 0.713 0.882 0.675	0.777	0.534	0.635
Online intention to purchase	I would feel comfortable buying products from this online vendor. I would feel comfortable seeking product/service information from this online vendor. I would feel comfortable receiving free product/service information from this online vendor. I would feel comfortable providing information to this online vendor in order to receive customized service. I would feel comfortable developing a valuable relationship with this online vendor.	0.607 0.689 0.834 0.650 0.560	0.774	0.591	0.680

Data analysis

The collected data was analyzed in Spss and Amos software. Spss was used to obtain the demographic information of the sample. Moreover, data analysis and testing the hypotheses were done using SEM. SEM is a very strong multivariate analysis of the multivariate regression family, using which one can test regression set equations at the same time. In this study, the sample size, considering that the total number of members of the community was not available, considered it unlimited and using Morgan table with a 5% error level, 386 samples were examined.

Results

According to the results, as is seen in the demographic information table, in terms of gender, 66.8% of the respondents are men and 33.2% of the respondents are women. In terms of age, 7.8% of respondents are under 20 years old, 55.2% between 20 and 26 years old, 18.4% between 27 and 34 years old, 14.5% between 35 and 45 years old and 4.1% are people over 46 years old. Moreover, in terms of education, 13.7% of the respondents had a diploma, 10.1% associate degree, 53.4% bachelor's degree, 19.4% master's degree and 3.4% had PhD. Current observations show that men are much more likely than women to shop online. Perhaps the main reason is the greater desire of women to physically see the products and compare and buy products according to the different samples available in the market.

Table 2: Demographic analysis

Variable	Type	Frequency	Percentage of total data
Gender	Male	258	66.8%
	Female	128	32.2%
Age	Younger than 20 years	30	7.8%
	20 - 26 years	213	55.2%
	27 - 34 years	71	18.4%
	35 - 45 years	56	14.5%
	46 years and over	16	4.1%
Education	Diploma	53	13.7%
	Associate	39	10.1%
	Bachelor	206	53.4%
	Master	75	19.4%
	PhD	20	3.4%

Testing the conceptual model was done using SEM in Amos. The results are listed in Table 3. For the relationship to be significant, t values must be greater than 1.96. As the table show, all t values are greater than 1.96 and this significance reports the relationships between the variables. Accordingly, the significance of all relationships between variables is confirmed. We can refer to the values of the path coefficient listed in Table 3 to examine the significance of the relationship.

Table 3: The results of analysis

Path	Estimate	S.E.	Statistic	Status
Consumer characteristics → Perceptions of competence, integrity and benevolence	0.95	0.07	12.54	Confirmed
Company characteristics → Perceptions of competence, integrity and benevolence	0.93	0.09	9.71	Confirmed
Lack of integrity, privacy and security → Perceptions of competence, integrity and benevolence	-0.86	0.09	-8.83	Confirmed
Likability → Perceptions of competence, integrity and benevolence	0.23	0.11	1.99	Confirmed
Interactions → Perceptions of competence, integrity and benevolence	0.79	0.10	7.38	Confirmed
Perceptions of competence, integrity and benevolence → Overall customer trust	0.83	0.08	9.48	Confirmed
Overall vendor trust → Intention to purchase	0.94	0.08	11.04	Confirmed

The first hypothesis studies the relationship between consumer characteristics and types of perceptions. According to the direct path coefficient (0.95) of consumer characteristics on different perceptions of competence, integrity and benevolence and the t-statistic (12.54), the first hypothesis is confirmed. The second hypothesis studies the relationship between company characteristics and types of perceptions. According to the direct path coefficient (0.93) of the company characteristics on the types of perceptions and t-statistic (9.71), the second hypothesis is confirmed. The third hypothesis examines the relationship between lack of integrity, privacy and security, and types of perceptions. Given the path coefficient (-0.86), the lack of integrity, privacy and security on all types of perceptions and t-statistics (-8.83), the third hypothesis is confirmed too. The fourth hypothesis examines the relationship between website likability and the types of perceptions, which is confirmed by the direct coefficient (0.23) of the likability of the website on the types of perceptions and the t-statistic (1.99) of the fourth hypothesis. The fifth hypothesis examines the relationship between interactions and types of perceptions of competence, integrity and benevolence, which according to the direct path coefficient (0.79) of interactions on different types of perceptions and t-statistic (7.38), the fifth hypothesis is confirmed as well. Hypothesis six examines the relationship between competence perception, integrity, benevolence, and overall consumer trust. Considering the direct path coefficient (0.83), the perception of competence, integrity and benevolence on the overall trust of consumers and t-statistic (9.48), the sixth hypothesis is confirmed. Finally, the seventh hypothesis examines the relationship between the overall trust of the seller and the purchase intention. This is confirmed by the direct path coefficient (0.94) of the seller's overall trust in the intention to purchase and the t statistic (11.04).

Ultimately, Goodness of Fit Index (GFI) index be used to measure the goodness of fit of the research model, which calculates the ratio of reproduction of variance to estimating the covariance observed. To express GFI better, the accuracy of the model in repeating the covariance matrix has been observed the value of which was 0.89 in the study.

Conclusions and suggestions

E-commerce and trust are very rich in writing, and different analyses of them at independent levels are increasing. However, studying these two areas along all dimensions and resources of consumer trust proved to have limited resources. The purpose of the study was to examine the important and basic concept in e-commerce according consumer trust dimensions - perceptions of competence, integrity and benevolence - that showed three of them affecting the overall trust of consumers and therefore their purchase intention.

Accordingly, the online Digikala store was considered to be examined and a sample of 386 customers of this store in Shiraz were studied. The study examined a path model to explain how overall customer confidence affects online purchase intentions. The results indicated that consumer characteristic(trust stance and attitude towards online shopping), firms characteristics (reputation and brand recognition), website infrastructure (the need for integrity, privacy, security and likability of the website) and interactions (customer satisfaction and service quality) are the major sources of trust influence the three dimensions of consumer trust, namely competence, integrity and benevolence, and explain that overall trust has a direct effect on intention to purchase online.

Success depends heavily on gaining and maintaining trust as transactions develop through the Internet. On the one hand, it relies on the ease of use of consumers while purchase and searching for products from Internet sellers, receiving free products and information by sellers, and on the other on providing information to the seller to develop a valuable relationship. Thus, to increase online sales performance, internet vendors have to be aware that although consumers are more receptive to online shopping today than ever before, it is important for the consumer to enjoy visiting the website to develop a state of trust. Moreover, having a good reputation in the market, being honest and customer-oriented, and believing that online sellers always keep their promises create a good image in the minds of consumers and thus they encourage friends and acquaintances to use the online store. A website infrastructure that has an easy understanding to find information while using the site for the first time can enhance the performance of online sellers. Hence, it has been organized so that consumers do not feel to be controlled while browsing

the website, and they should be assured of providing personal information like credit card details, and eliminate common consumer doubts. Moreover, it is critical to increase interactions with a quality service where consumers can achieve significant value by purchasing from an online store. These values include sending prizes, unconditional return of goods, sending SMS or greeting cards or other incentives to encourage them to interact more with the website.

During the study, the constraints were mainly related to the structures we intended to measure. This is because although the volume of papers on trust, e-commerce, and intention to purchase is vast, the empirical data combining these three topics is not easy to obtain. One of the serious obstacles faced during the distribution and collection of questionnaires was the refusal of some people to complete the questionnaire because of not buying from the online store. However, there was only one online seller in response to the questionnaire in the survey of respondents, which could affect the results. The next limitation was the limitation of the Likert scale, which made respondents tend to respond moderately. The third limitation was in the generalizability of results. As the study was conducted only among the customers of Digikala online store, it is impossible to generalize the results to other online stores. For more research, the results of the study can be a suitable heuristic to measure the various dimensions of customer trust in "B2B" businesses in e-commerce and its modeling. Likewise, the role of other important factors such as culture, brand, and various methods of advertising and marketing can be evaluated in the development of the model presented in this study.

References

- [1] Aghapour Hassiri, M., Afghanpour, M. (2015). Study of the effect of customers' trust in e-commerce on online purchase of insurance services (Case study: Selected branches of Iran Insurance in Mazandaran Province). International Conference on Management, Economics and Financial Systems, Dubai, Pendar Andish Rahpo Co., May 27, pp 13.
- [2] Ahn, T., Ryu, S. & Han, I., (2007). The impact of web quality and playfulness on user acceptance of online retailing. *Information & Management*, 44(3), 263-275.
- [3] Alsaad, A. Mohamad, R. & Azizi N. (2017). The Moderating Role of Trust in Business to Business Electronic Commerce (B2B) Adoption, *Computers in Human Behavior*, 68,157-169.
- [4] Bagozzi, R. P. & Yi, Y., (1988), "On the evaluation of structural equation models". *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- [5] Beldad, A. Jong, M.D. & Steehouder, M. (2010). How shall i trust the faceless and the intangible? A literature review on the antecedents of online trust. *Computers in Human Behavior*, 26(1), 857-869.
- [6] Bitner, M. J. & Hubbert, A.R. (1994). *Encounter satisfaction versus overall satisfaction versus quality*. London: Sage Publications, Inc.
- [7] Chang, M.K., Cheung, W. & Lai, V.S. (2005). Literature derived reference models for the adoption of online shopping. *Information & Management*, 42(1), 543-559.
- [8] Chau, P. Y. K., Hu, P. J. H., Lee, B. L. P., & Au, A. K. K. (2007). Examining customers' trust in online vendors and their dropout decisions: An empirical study. *Electronic Commerce Research and Applications*, 6, 171-182.
- [9] Chen, S.C. & Dhillon, G. (2003). Interpreting dimensions of consumer trust in e-commerce. *Information Technology and Management*, 4(1), 303-318.
- [10] Cravens, K.S. & Oliver, E.G. (2006). Employees: The key to corporate reputation management. *Business Horizon*, 49(1), 293-302.
- [11] Crespo, A.H., & Bosque, I.R.D. (2010). The influence of the comerial features of the internet on the adoption of e-commerce by consumers. *Electronic Commerce Research and Applications*, 9(1), 592-575.
- [12] Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
- [13] Dayal, S., Landesberg, H. & Zeisser, M. (1999). How to build trust online. *MarketingManagement*, Fall, 64-69.
- [14] Dehghan, A. (2006). Relationship between service quality and customer satisfaction, master thesis. Tarbiat Modares university faculty of engineering & department of Industrial engineering Luella university of technology.
- [15] DeLone, W. H. (2003). The DeLone and McLean model of information systems success: a ten-year update. *Journal of Management Information Systems*, 19(4), 9-30.
- [16] DeLone, W.H. & Mclean, E. R. (2004). Measuring e-commerce success: Applying the DeLone & McLean information systems success model. *International Journal of Electronic Commerce*, 9(1), 31-47.
- [17] Ewing, M.T., Caruana, A. & Loy, E.R. (1999). Corporate reputation and perceived risk in professional engineering services. *Corporate Communication: An International Journal*, 4(3), 121-128.
- [18] Fathian, M., Molanapour, R. (2017). *E-commerce with an approach to social commerce*. Tehran: Atinegar Publications.
- [19] Flavian, C., Guinalau, M. & Gurrea, R. (2006). The role played by perceived usability, satisfaction, and consumer trust on website loyalty. *Information & Management*, 43(1), 1-14.
- [20] Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

- [21] Gefen, D. (2002). Reflections on the dimensions of trust and trustworthiness among online consumers. *ACM Special Interest Group on Management Information Systems*, 33(3), 38-53.
- [22] Hallikainen, H. & Laukkanen, T. (2018). Notional Culture and Consumer Trust in E-Commerce. *International Journal Information Management*, 38, 97-106.
- [23] Huang, Z. & Benyoucef, M. (2013). From e-commerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*, 12(1), 246-259.
- [24] Hyun Shik, Y. & Luis G. O. (2015). Influencing Factors of Trust in Consumer-to- Consumer Electronic Commerce with Gender and Age. *International Journal of Information Management*, 35, 352-368.
- [25] Kamali, P., Khalili, Z. (2012). Effective Factors for Customer Trust in Electronic Banking. *Research Journal of Payame Noor University, Chaharmahal and Bakhtiari*, 6, 34-51.
- [26] Kavousi, M.R., Saghaei, A. (2005). *Methods of measuring customer satisfaction*. Tehran: Sabzan Publications.
- [27] Keller, K. L. (2003). Understanding brands, branding and brand equity. *Interactive Marketing*, 5(1), 7-20.
- [28] Khodadad Hosseini, H., Shirkhodai, M., Kordnaji, A. (2009). Factors affecting customer confidence in B2C e-commerce. *Teacher of Humanities Quarterly*, 13 (2), 93-118.
- [29] Kim, D.J., Ferrin, D.L. & Rao, H.R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(1), 544-564.
- [30] Lin, L.Y. & Liao, J.C. (2012). The influence of store image and product perceived value on consumer purchase intention. *International Journal of Advanced Scientific Research and Technology*, 2(3), 306-321.
- [31] Mcknight, D.H., Choudhury, V. & Kacmar, C. (2002). The impact of initial consumer trust on intentions to transact with a website: A trust building model. *Journal of Strategic Systems*, 11(1), 297-323.
- [32] Mohanna, S.h., Yaghoubi, N.M., Vahidi Motlaq, S., & Vahidi Motlaq, T. (2011). Limitations of e-commerce implementation in developing countries: Case study of iran. *American Journal of Scientific and Industrial Research*, 2(1), 224-228.
- [33] Nguyen, N. & Leblance, G. (2001). Corporate image and corporate reputation in customers retention decisions in services. *Journal of Retailing and Customer Services*, 8 (1): 227-236.
- [34] Oliveira, T. Alinho, M. Rita, P. & Dhillon, G. (2017). Modelling and Testing Consumer Trust Dimension in E-Commerce. *Computers in Human Behavior*, 71, 153-164.
- [35] Poddar, A., Donthu, N. & Wei, Y. (2009). Website customer orientation, website quality, and purchase intentions: The role of website personality. *J Bus Res*, 62(1), 441-450.
- [36] Roy, M.C., Dewit, O. & Aubert, B.A. (2001). The impact of interface usability on trust in web retailers. *Internet Research: Electronic Networking Applications and Policy*, 11(1), 388-398.
- [37] Sanaei, A., Pour Mostafa, M., Ghazi Fard A.M., Nasirzadeh, M.A. (2012). Investigating the effect of quality of electronic services on customer satisfaction and intention to repurchase. *Business Management Perspectives*, 11 (12), 91-111.
- [38] Sheikhi, A., Shafei, R., Farouqi, H. (2014). Investigating the factors affecting the increase of customers' trust in purchasing products and services online. *Journal of Marketing Management*, 9 (22), 77-97.
- [39] Zhu, Y.Q. & Gee Chen, H. (2012). Service fairness and customer satisfaction in internet banking exploring the mediating effects of trust and customer value. *Internet Research*, 22(4), 482-498.
- [40]