INFLUENCE OF INFORMATION SOURCE CREDIBILITY AND QUALITY ON PEOPLE'S ATTITUDE TOWARDS USING IT AND ELECTRONIC SHOPPING BEHAVIOR OF INFORMATION PRODUCTS

INFLUENCIA DE LA CREDIBILIDAD Y CALIDAD DE LA FUENTE DE INFORMACIÓN EN LA ACTITUD DE LAS PERSONAS HACIA SU USO Y EL COMPORTAMIENTO DE COMPRA ELECTRÓNICA DE PRODUCTOS DE INFORMACIÓN

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ABSTRACT

Objectives: This study aimed to investigate the impact of resource credibility and quality on people's attitude towards it and the electronic shopping behavior of information products. **Design / Methodology / Approach:** Descriptive-analytic method with a causal-correlation approach used. Study sample was 364 students of Jundishapur University of Medical Sciences. The data were collected using a researcher-made questionnaire. **Results / Discussion:** The results of the hypothesis test showed that the reliability (r = 0.404), being specialized (r = 0.365) and attractiveness (r = 0.239) affect the attitude of people towards using the source. Therefore, people's attitude towards using the source has a strong significant effect on

electronic shopping behavior (r = 0.776). **Conclusion:** The effect of the mediating role of people's attitude toward using information sources on the relationship between source credibility and the behavior of shopping electronic information products was confirmed. **Originality / Value:** Because decision-making is a smart behavior and requires information support, The source of information used to support the decision must have the necessary quality and credibility. Based on the results of this study, the quality and credibility of the information source affect the attitude of users and their use of information resources.
KEYWORDS: Information source credibility; User's attitude; Use of information source; Electronic shopping behavior; Information products.

RESUMEN

Objetivos : Este estudio tuvo como objetivo investigar el impacto de la credibilidad y calidad de los recursos en la actitud de las personas hacia ellos y el comportamiento de compra electrónica de productos de información. **Diseño/Metodología/Enfoque:** descriptivo-analítico con enfoque de correlación causal utilizado. La muestra del estudio fue de 364 estudiantes de la Universidad de Ciencias Médicas de Jundishapur. Los datos se recopilaron mediante un cuestionario elaborado por investigadores. **Resultados/Discusión:** Los resultados de la prueba de hipótesis mostraron que la confiabilidad (r = 0.404), la especialización (r = 0.365) y el atractivo (r = 0.239) afectan la actitud de las personas hacia el uso de la fuente. Por lo tanto, la actitud de las personas hacia el uso de la fuente tiene un fuerte efecto significativo en el comportamiento de compra electrónica (r = 0,776). **Conclusión:** Se confirmó el efecto del papel mediador de la actitud de las personas hacia el uso de fuentes de información sobre la relación entre la credibilidad de la fuente y el comportamiento de compra de productos de información electrónicos. **Originalidad/Valor:** Debido a que la toma de decisiones es un comportamiento inteligente y requiere apoyo de información, la fuente de información utilizada para respaldar la decisión debe tener la calidad y credibilidad necesarias. Con base en los resultados de este estudio, la calidad y credibilidad de la fuente de información afectan la actitud de los usuarios y su uso de los recursos de información.
PALABRAS CLAVE: credibilidad de la fuente de información; Actitud del usuario; Uso de fuente de información; Comportamiento de compra electrónica; Productos de información

INTRODUCTION

Attitude is a concept rooted in the field of social psychology. Eagly and Chaiken (2007) define it as the ability of an individual to evaluate a particular entity with some degrees of favor or disfavor. Perloff (2003) described attitude as "a learned, global evaluation of an object (person, place, or issue) that affects thinking and behavior. According to the *theory of reasoned action* (TRA) developed by Fishbein and Ajzen (2003), which seeks to explain the causal chain to predict behavior, attitudes towards behavior along with the subjective norm are two important characteristics of the behavioral tendencies of individuals (Dekker, Dijkgraaf and Meijerink, 2007). In addition, the attitude is a summary of the specific assessment of entities, such as behavior, individuals, institutions, or events, and is defined as the main attribute of tendencies and behavior in the theory of planned behavior (Seddig and Davidov (2018). The concept of attitude is of particular importance in marketing research. As marketers seek to change the behavior of customers, they try to influence people's attitudes. An individual's attitude analysis provides an opportunity to describe and anticipate his or her behavior. In this regard, the results of previous studies have shown that attitudes have a significant effect on people's behavioral trends and tendencies (Al-Nasser, Yusoff, Islam, and Al-Nasser (2014) people's actual purchasing behavior (George, 2004), and the intentions of individuals (Liao and Wu, 2010).

Formation of attitudes in people, in turn, may be influenced by various factors and conditions, including the information and knowledge they possess. Attitude-relevant knowledge referred to as Issue-relevant knowledge or Working knowledge, is defined as a set of beliefs and experiences associated with the attitude that occurs when faced with the subject of attitude (Fabrigar, Petty, Smith, and Crites, 2006). However, the availability of a variety of information also does not guarantee that the attitude of an individual is equally diverse; and this is what has been suggested in previous research findings with the view that the attitude of an issue leads to selective acceptance and dissemination of information, which in turn has reciprocal effects on those attitudes (Wu and Liao, 2010). Simply put, individuals' knowledge and information are related to the formation of their attitude, and this problem in the current world where information is diverse both in terms of volume and subject matter, and differs through different channels, and disseminated through various channels, has caused new challenges in the field of behavioral studies, including information behavior. Nowadays, the rapid development of information and communication technologies has made important changes in the social space. Digital media, as one of the forms of information and communication technology (ICT), have made it possible to access various information resources through which access to a large amount of information is possible. However, the credibility and quality of the information in this digital context are still a major concern, and online shopping behavior is one of these concerns.

Given that the interaction occurs between buyer, seller and goods or services received in a virtual environment and there is no personal exposure, face-to-face contact and in most cases, immediate perception or touch of goods or services, the problems with the information source reliability are particularly important in the online e-shopping context, so that consumers should trust the information provided by online retailers or other sources to make the right decisions about purchasing. The results of previous studies have shown that the quality of information has a significant impact on many of the organizational functions and their results such as knowledge sharing behavior, compatibility with mobile tools, trust in information technology (IT) products, customer loyalty and customer satisfaction (Kim & Han, 2011), Vance, Elie-Dit-Cosaque, and Straub (2008). The information quality is defined as a property of information that consistently matches the expectations of employees and the expectations of end customers, and the degree to which the information with the characteristics of the content, shape and time gives the value to specific end users. Information quality is the attribute of information that meets the practical, technical, cognitive and aesthetic needs of information producers, managers, consumers, and experts. This information is determined and evaluated by the user-defined valuable criteria and with a specific standard of requirements (Kisubika, 2011). According to Eppler (2006), information quality is also a part of the information characteristic that meets the practical, technical, cognitive, and aesthetic needs of creators of information, managers, users, and experts.

In addition to the quality of information, information receivers may be affected by other factors, such as the credibility of the source, as well. According to Shahibi, Mazlan, Noor, and Hanafiah (2013), reliability, attractiveness, accuracy, and importance have an impact on individual perception of information credibility. The source credibility is defined by a communicator's perception of the credibility of the source statements and the degree of credibility that is being established in the communicator for the communication (Ohanian, 1990), of course, the positive attributes of the communicator are influencing the reception of the message by the receiver (Cheung and Rabjohn, 2008, Fanoberova and Kuczkowska, 2016). This means that the characteristics of the source of information affect the value of the information provided and thus accelerate the acceptance of information (Ohanian, 1990). According to Metzger and Flanagin (2013), while the high cost and complexity of the production and dissemination of information are limiting for the information providers, network digital media have dramatically changed the information landscape and, by reducing the cost of production and dissemination, has provided access to the massive information for public use. However, one of the consequences of increasing the volume of information is to find credible information tailored to the needs of individuals. Another consequence is that continuous information may not be of a degree to the desired

credibility for the specialist, therefore, it is prone to oldness, defect, and inaccuracy (Metzger, Flanagin, Eyal, Lemus and McCann (2003), Rieh and Danielson, 2007). In other words, the availability of various forms of information on the web has made it difficult to recognize the credibility of things and individuals (Robins, Holmes and Stansbury (2010), Keshavarzi (2014). According to Kriscautzky and Ferreiro (2014), credibility and believability are used interchangeably and refer to features of information or message that make it credible and believable. These attributes may be related to the source of the message, the receiver, the message itself, the circle, past experiences of the receiver, time, beliefs, or information. The result of the information impact of source credibility can also affect the attitudes of receivers of information and consequently change their buying behavior. According to the above, it can be concluded that the credibility of the source of information can affect the attitude of individuals towards the use of information sources and their actions and behaviors. Therefore, and given the fact that students are from a generation who are closely related to technology and have many of their purchases online, the main question of the research is whether the information source credibility of affects people's attitude toward using it and the behavior of buying electronic information products? To this end, determining the effect of source reliability, being specialized resource information, the source information attractiveness on the attitude of individuals towards using it and the mediating role of attitude as specific goals and the following questions and hypotheses were considered:

1) Dimensions of the information source credibility have an impact on students' attitudes towards using that source.
2) Dimensions of the information quality of the information source have an impact on students' attitude towards using that source.
3) Students' attitudes toward the use of information sources have an impact on their e-shopping behavior.
4) Source credibility affects the e-shopping behavior of students with the mediating role of their attitude towards using the information source.
5) The source information quality affects students' e-shopping behavior with the mediating role of their attitude towards using the information source.

Literature review

A review of past studies shows that due to the pervasive and hastily penetration of ICT in various areas of life, the study of factors affecting the behavior of individuals in the virtual environment, including shopping behavior, has been the subject of various studies. Ramezanian (2001) also investigated the relationship between Internet marketing and customer shopping behavior and concluded that variables of price, security, and trust in the Internet marketing environment, product characteristics, and ease of purchase had a significant effect on the behavior of customer purchases on the Internet. In another study, the results of the study conducted by Karimian and Horri (2019) entitled "Identifying the role of users in validating web-based information resources" showed that criteria such as user's purpose, user's ability (subject knowledge, technical knowledge, and the internet, and knowledge of evaluation) and motivation are among the most important validation criteria of users. Keshavarz, Shabani and Wasefi (2015) also examined the credibility of health information resources on the Internet and the impact of personality traits and consciences and the type of evaluation of these resources among university health-medical users. Their results showed that the most important criterion for qualitative evaluation was neutrality, and then the author's timeliness and credibility. There is a significant correlation between consciencesand the amount of credit allocation for Internet information resources. The results of the study by Faezi and Norouzi (2015), conducted in order to investigate the factors affecting customers' willingness to purchase virtual stores, have shown that security, support, ease of access and use, provided goods, payment method, content of information, innovation, and trust to the virtual store site affect the customers' willingness to buy from these types of stores.

Also, in the field of foreign studies, Chang and China (2010), who examined the impact of offered resources on online shopping attitude with the mediate role of gender and perceived risk, found that there

is a relationship between the offered sources and the desire to online shopping so that the oral offer effect on the desire to buy online is stronger than the offering and advertising systems. Cetina, Munthiu, and Radulescu (2012) believe that e-commerce is the source of great change in consumer behaviour, which includes psychological and social factors. The results of the study conducted by Sin, Nor and Al-Agaga (2012) regarding the factors affecting the tendency of young Malaysian clients to online shopping on social media websites also showed that perceived usefulness, perceived ease of use, and mental norms had a significant effect on the people's tendency towards shopping.

In another study aimed at examining electronic advertising, the message source credibility, and the information quality of the brand image and the tendency to purchase, Atika, Kusumawati and Iqbal (2017) showed that electronic advertising, the credibility of the message source, and the information quality had a significant effect on the brand image and tend to buy. The study conducted by Kim and Choi (2012) on credibility syndrome in online shopping also showed that among the various types of credibility syndromes, retailer credibility has a strong impact on online purchases, and the consumer perception of the firm's credibility is a strong predictor of a tendency to buy and the consumer perception of product quality. Similarly, the results obtained by Thamizhvanan and Xavier (2013) showed that motivation, the previous purchasing experience, and online trust had a positive and significant effect on customers' trend in online shopping. Kooli, Ben Mansour and Utama 's (2014) results of online credibility ratings and its impact on the trend of continuous purchases showed that buying trends are strongly influenced by online credibility. In addition, benevolence, honesty, and credibility as aspects of personality validation, reputation, cost-benefit calculation as aspects of cognitive credibility, as well as situational normality as an indicator of organizational credibility, have a significant effect on online credibility. The study conducted by Li and Suh (2015) entitled "the factors influencing the credibility of information in social media" showed that the dimensions of credibility and argument of power from the dimensions of message credibility are the main determinant of the credibility of the information. Also in another study, Lim, Osman, Salahuddin, Romle and Abdullah (2016) found that mental norms and perceived usefulness had a positive and significant effect on the trend of online shopping. The study conducted by Fortes and Rita (2016) about personal concerns and online shopping behavior showed that credibility, risk, perceived usefulness, perceived ease of use, perceived control and perceived difficulty had a significant effect on the individuals' attitude and tendency to purchase online. Coursaris and Osch (2016) also examined the source credibility effect on information acceptance on YouTube. The results showed that he believed that source credibility, type of information (how to train in contrast to the apparent characteristics of the product), and viewer's characteristics in understanding the information quality, the usefulness of information, satisfaction with information, and the information credibility affect the acceptance of YouTube information. The results obtained in Hui's (2017) study on the impact of resource credibilityon the tendency to purchase among Malaysian consumers in a virtual society showed that source credibility has a significant effect on customers' tendency towards buying.

METHODOLOGY

In this applied descriptive-analytic study, conducted using a causal - correlation approach in 2018, a sample size of 364 of all students of Jundishapur University of Medical Sciences was selected by the Proportionate Stratified Random Sampling technique. The data gathering tool was a researcher-made questionnaire containing 20 statements based on previous study tools such as Sinitsyan (2014), Lee, Strong, Kahn and Wang (2002), Fanoberova and Kuczkowska(2016). Its face validity was confirmed by a survey of experts and its reliability was confirmed using the Cronbach's alpha in the value of α = 0.89. Data were collected by field method and distributed questionnaire. Then, the Kolmogorov-Smirnov test (KS) was used to check the normality of the research data (Table 1).

Table 1. The Kolmogorov-Smirnov test to examine the normality of the research variables (n = 364)

Kolmogorov-Smirnov

Variables	Statistic	P-value
Reliability of source information	0.087	<0.001
Being a specialized source information	0.115	<0.001
Source information attractiveness	0.097	<0.001
Source credibility	0.062	<0.002
Source information comprehensiveness	0.121	<0.001
Source information accuracy	0.123	<0.001
Source information relevance	0.152	<0.001
Information quality	0.064	<0.001
Attitudes towards the use of the source	0.068	<0.001
Electronic shopping behavior	0.078	<0.001

According to the information in Table 1, since Kolmogorov-Smirnov statistics were calculated in all variables with an error rate below the standard level of 0.05, it shows that there is a significant difference in the levels of all variables and the relevant data are non-normal. So non-parametric tests can be used. Finally, the data were analyzed using statistical tests using SPSS version 23 and Amos 24.

RESULTS

Distributional status of responses to statements of different variables, including the information source credibility, attitude toward using information source and the behavior of information product purchasing were investigated and the results were shown by frequency, percentage, mean, and standard deviation (Tables 2 to 4).

Table 2. Frequency distribution of respondents to resource credibility variable

The information source credibility provided on the websites of electronic shopping and information services	N and Percentage	I quite agree	I agree somewhat	I do not have any idea	Somewhat disagree	Completely disagree	Mean	Standard deviation
Highly reliable.	N	52 (14.3)	185 (50.8)	82 (22.5)	92 (25.3)	21 (5.8)	3.18	1.08
	P							
Usually complete and perfect	N	11 (3)	72 (19.8)	109 (29.9)	149 (40.9)	23 (6.3)	2.72	0.90
	P							
Completely reliable.	N	16 (4.4)	77 (21.2)	96 (26.4)	145 (39.8)	30 (8.2)	2.74	1.02
	P							
Extracted from good sources	N	18 (4.9)	109 (29.9)	142 (39)	82 (22.5)	13 (3.6)	3.10	0.92
	P							
Exactly about the products/services concerned	N	27 (7.4)	146 (40.1)	107 (29.4)	76 (20.9)	8 (2.2)	3.29	0.90
	P							
In conjunction with any product/service, it is presented in a specialized form.	N	29 (8)	138 (37.9)	102 (28)	86 (23.6)	9 (2.5)	3.25	0.98
	P							

It also covers product or service details.	N	33 (9.1)	163 (44.8)	87 (23.9)	78 (21.4)	3 (0.8)	3.39	0.94
	P							
They are presented in an attractive way.	N	78 (21.4)	143 (39.3)	85 (23.4)	52 (14.3)	6 (1.6)	3.64	1.02
	P							
Very simple and unambiguous.	N	24 (6.6)	122 (33.5)	106 (29.1)	105 (28.8)	7 (1.9)	3.14	0.97
	P							
Encourages me to study it further.	N	37 (10.2)	132 (36.3)	119 (32.7)	61 (16.8)	15 (4.1)	3.31	1.00
	P							
		Source Credibility					31.78	0.7
		Reliability					2.98	0.756
		Being specialized					3.20	0.708
		Attractiveness					3.36	0.739

Results of frequency are reported as numbers (percentages).
Table (2) shows the results of the distribution of responses to various statements of the source credibility. Based on the results of the table, 21.4% had the highest degree of agreement with the statement of the "attractiveness of presentation style", and the highest disagreement (8.2%) was with the statement of the "reliability". Based on the results of the table, the lowest mean score in the field of source credibility is for the statement of "usually complete and perfect" (2.72 ± 0.95); and the highest mean score is related to the statement of" attractiveness of presentation style" (3.64 ± 1.02). Meanwhile, the mean resource credibility is 5.7 ± 31.78. At the level of the sub-scales of source credibility, the lowest mean score is 0.756 ± 2.98 for the sub-scale of reliability and the highest mean score is 0.739 ± 3.36 for the information source attractiveness.

Table 3. Frequency distribution of respondents to resource credibility variable

The information source quality provided on the websites of electronic shopping and information services … .	N and Percentage	I quite agree	I agree somewhat	I do not have any idea	Somewhat disagree	Completely disagree	Mean	Standard deviation
Usually true.	N/P	35(9.6)	177(48.6)	71(19.5)	70(19.2)	11(3)	3.43	1.00
Useful for me	N/P	42(11.5)	190(52.2)	97(26.6)	30(8.2)	5(1.4)	3.64	0.84
Is comprehensive and accurate	N/P	23(6.3)	160(44)	103(28.3)	65(17.9)	13(3.6)	3.31	0.96
Cover my needs	N/P	37(10.2)	180(49.5)	87(23.9)	55(15.1)	5(1.4)	3.52	0.92
Is understandable	N/P	56(15.4)	167(45.9)	89(24.5)	46(12.6)	6(1.6)	3.61	0.95
Covers all conditions and features of product/service	N/P	26(7.1)	125(34.3)	114(31.3)	92(25.3)	7(1.9)	3.19	0.96
Linked with product	N/P	38(10.4)	209(57.4)	83(22.8)	30(8.2)	4(1.1)	3.68	0.81
Match with the product/service	N/P	52(14.3)	185(50.8)	82(22.5)	40(11)	5(1.4)	3.65	0.90
Clearly clear about product/service	N/P	27(7.4)	154(42.3)	97(26.6)	77(21.2)	9(2.5)	3.31	0.97
Source quality							31.35	5.09
Comprehensiveness							3.44	0.672
Accuracy							3.35	0.723
Relevance							3.66	0.633

Results of frequency are reported as numbers (percentages).

Table (3) shows the results of the distribution of responses to various statements of the source quality. Based on the results of the table, 15.4% had the highest degree of agreement with the statement of the "understandability of information", and the highest disagreement (13.6%) was with the statement of the "enough comprehensive and accurate". Based on the results of the table, the lowest mean score in the field of source quality is for the statement of "Covers all conditions and features of product/service" (3.19±0.96); and the highest mean score is related to the statement of "Linked with product/service" (3.68±0.81). Meanwhile, the mean resource quality is 5.09±31.05. At the level of the sub-scales of source quality, the lowest mean score is 0.723±3.35 for the sub-scale of accuracy and the highest mean score is 0.633±3.66 for the information source relevancy.

Table 4. Frequency distribution of the results of the respondents'
Attitude towards the use of the source

It seems that the information I receive is …	N and Percentage	I totally agree	I agree somewhat	I do not have any idea	Somewhat disagree	Completely disagree	Mean	Standard deviation
Highly reliable	N	143	151	42	25	3 (8)	4.11	0.92
	P	(39.3)	(41.5)	(11.5)	(6.9)			
Usually complete and perfect	N	81	143	65	55	20	3.58	1.15
	P	(22.3)	(39.3)	(17.9)	(15.1)	(5.5)		
Completely reliable	N	55	147	97	56	9	3.50	1.00
	P	(15.1)	(40.4)	(26.6)	(15.4)	(2.5)		
Extracted from good sources	N	49	116	106	70	23	3.27	1.11
	P	(13.5)	(31.9)	(29.1)	(19.2)	(6.3)		
Exactly about the products/services concerned	N	40 (11)	128	96	80	10	3.26	1.06
	P		(35.2)	(26.4)	(23.4)	(4.1)		
Attitude towards using the source							17.71	4.03
Results of frequency are reported as numbers (percentages).								

The results of Table (4) show the distribution of responses in relation to different statements of the attitude towards the use of the source. Based on the results of Table, the highest agreement was with the statement of "Reliability" (% 39.3), and the most disagreement was with the statement of "Extracted from a good source" (%6. 3). Meanwhile, the largest range of responses is in the " Somewhat disagree ". Based on the results of the table, the lowest mean score in the attitude towards the use of the source was 3.26±1.06 for the "Exactly about the products/services concerned ", and in this case, the highest mean score was 4.11±± 92 for the statement of "Highly Reliable". Also, the mean score of attitude towards the use of the source was 4.03± 17.71.

Table 5. Frequency distribution of respondents to the shopping behavior variable

Shopping behavior		I totally agree	I agree somewhat	I do not have any idea	Somewhat disagree	Completely disagree	Mean	Standard deviation
I prefer to buy information products and services in an electronic way rather than buying in the usual way.	N	47	132	91	70	24	3.29	1.12
	P	(12.9)	(36.3)	(25)	(19.2)	(6.6)		
Given the current situation, I think it is essential to purchasing information products and services electronically.	N	60	142	86	59	17	3.46	1.09
	P	(16.5)	(39)	(23.6)	(16.2)	(4.7)		
I strongly agree with purchasing information products and services electronically.	N	43	135	102	68	16	3.33	1.05
	P	(11.8)	(37.1)	(28)	(18.7)	(4.4)		
I plan to continue to electronically purchase products and services in the future.	N	60	152	101	38	13	3.57	1.00
	P	(16.5)	(41.8)	(27.7)	(10.4)	(3.6)		
I also recommend to my friends to buy information products and services electronically.	N	61	135	111	38	19	3.49	1.05
	P	(16.8)	(37.1)	(30.5)	(10.4)	(5.2)		
E-shopping behavior							17.16	4.19
Results of frequency are reported as numbers (percentages).								

Table 5 shows the distribution of responses for different statements about shopping behavior. According to the results of Table, the highest agreement was with the "e-shopping offer to others" (%16. 8) and the most disagreement was with the statement of the "preferred electronic purchase instead of ordinary purchase". Meanwhile, the largest spectrum of responses has been within the scope of "Somewhat agree." According to the table, at the level of statements, the lowest average score in the field of electronic shopping behavior was 3.29±1.12 for the statement of "Preference for electronic purchase to ordinary purchases" and the highest average score for the statement "Having a plan for continuing electronic purchases in the future" (3.57±1.00). The result is that the mean score of electronic shopping behavior was 4.19±17.16.

Spearman correlation test (Table 6) was used to test the hypotheses and based on the results of normality tests of data.

Table 6. Spearman correlation coefficient between research variables

Variable	Source information Relevance	Source information accuracy	Source information comprehensiveness	Source information reliability	Being a specialized source information	Source information attractiveness	Electronic shopping behavior
Attitude towards using the source	0.354 (<0.001)	0.367 (<0.001)	0.375 (<0.001)	0.404 (<0.001)	0.365 (<0.001)	0.239 (<0.001)	0.776 (<0.001)

According to the data of Table 6, there is a positive and significant relationship between sub-scales of source information quality (source information relevance (r = 0.354),the source information accuracy (r = 0.367) and the source information comprehensiveness (r =0.375)and source credibility (variables of source information reliability (r = 0.4404), being a specialized source information (r = 0.336) and source information attractiveness (r = 0.239) and attitude towards source use at a confidence level of P <0.001 (Fig. 1 and 2).

Fig. 1 Correlation between sub-scales of information source credibility and people's attitude towards using it
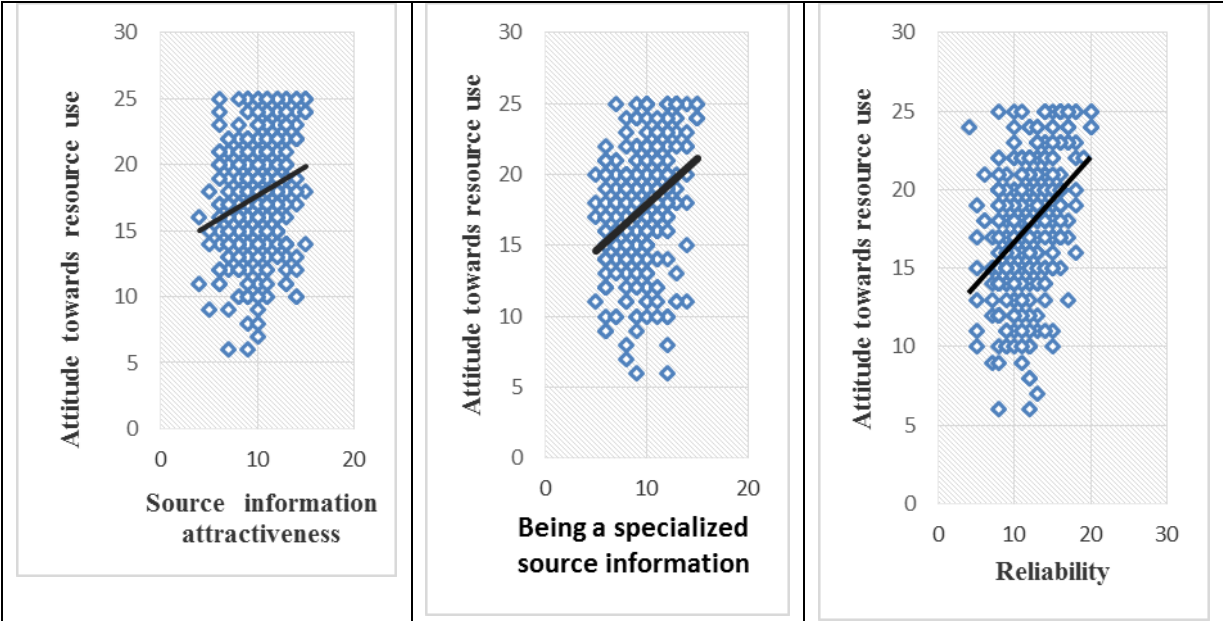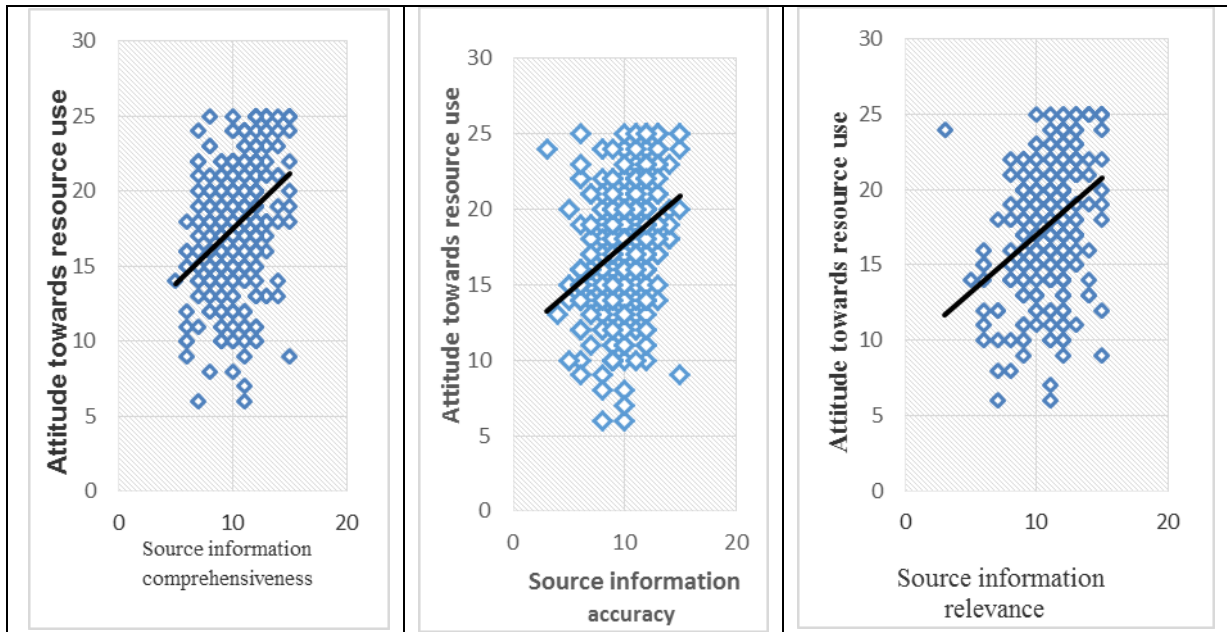
Fig. 2 Correlation between sub-scales of information source quality and people's attitude towards using it

Meanwhile, there is a positive and significant relationship between attitude towards source use and electronic shopping behavior of information products (r = 0.776) at a confidence level of P <0.001 (Fig. 3).

Fig. 3 Correlation between individuals' attitude towards using the information source and individuals' electronic shopping behavior
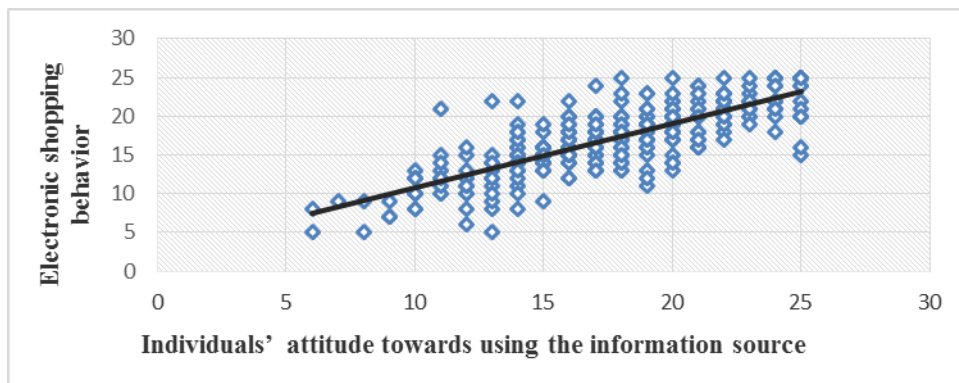
To test the intermediary effect of people's attitudes towards the use of an information source in the relationship between independent variables of credibility and source information quality with purchasing behavior, the Bootstrap method was used; so that regarding the possibility of the method, which make it possible to test the indirect effect between the variables in the level, and a number more than actual sample by re-sampling by inserting from a single original sample multiple times, randomly and automatically, using the sum of an indirect effect (total A → B → C) and a significant level, an overall estimation is provided. To implement the Bootstrap method, the conceptual model of the proposed mediator was first designed (Fig. 4). The good fit of the structural model of the mediator showed that the

model based on the fitting indexes of the model, included the relative Chi-squares equal to 2.82, i.e., the numerical value less than 3; the adaptive fit index (CFI = 0.824); and the increasing fitting index (IFI =0.826); and Tucker-Lewis index (TLI = 0.807) with numerical values less than 0.9 and the root index of estimating the approximation error variance (RMSEA = 0.071); with a numerical value less than 0.08 , fit of the model is almost acceptable.

Fig. 4. Proposed model with standardized coefficients and with the effect of the mediator variable

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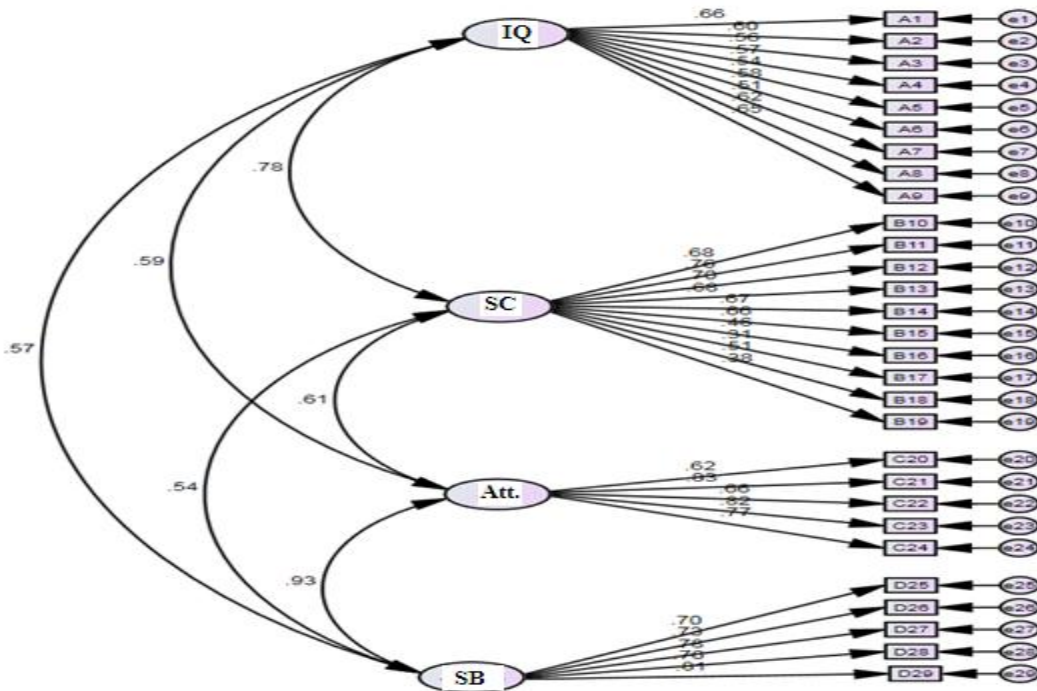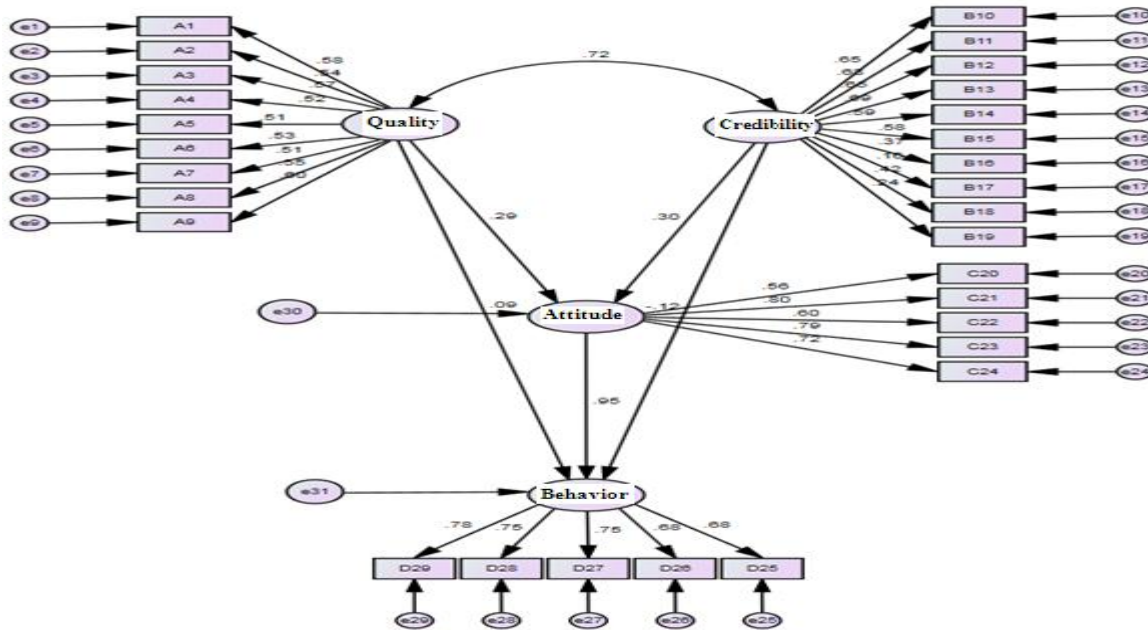
Fig. 5. Confirmatory factor analysis of information quality factors (IQ), source credibility (SC), attitude (Att.) and shopping behavior (SB)

Table 7. Fittings indicators of confirmatory factor analysis model

Index name	Abbreviation	Domain accepted	Indicator value obtained in the model
Root mean square error of approximation	RMSEA	Smaller than 0.80	0.049
Ratio of Chi-2 to degree of freedom	χ^2/df	Smaller than or equal to 3	1.87
Comparative fit index	CFI	More than 0.9	0.452
Incremental fit index	IFI	More than 0.9	0.483
Tucker-Lewis index	TLI	More than 0.9	0.401

The goodness of the confirmatory factor analysis model showed that the model based on the fitting indices of the model (Table 7) included the relative Chi-square equal to 1.87, i.e., a numerical value less than 3; an adaptive fit index (CFI = 0.492); and incremental fit index (IFI = 0.483); Tucker-Lewis index (TLI = 0.401); with numerical values less than 0.9 and the root mean square error of approximation (RMSEA = 0.049), with a numerical value smaller than 0.08.

Table 8. Regression coefficients of factors affecting shopping behavior (Full effects)

Relation	Non-standard values	Standard error	Standardized coefficient	Critical ratio	Significance level
Information quality→ Shopping behavior	0.461	0.134	0.315	3.44	<0.001
Source credibility→ Shopping behavior	0.187	0.113	0.165	1.66	0.097

According to table 8, the effect of source credibility variable on shopping behavior is not significant (P = 0.097; β = 0.165). Also, the results of Table 8 show that the total indirect effect of source credibility on shopping behavior through the attitude of individuals towards using the source is significant; therefore, this kind of effect can be considered as an indirect effect (P = 0.007; β = 0.286).

Table 9. Factors affecting shopping behavior through attitudes towards
Using source based on self-regulation (Indirect effects)

Relation	Non-standard values	Standard value	Significance level
Information quality → Attitude towards using the source →Shopping behavior	0.362	0.275	0.023
Source credibility → Attitude towards using the source → shopping behavior	0.344	0.286	0.007

According to Table 8, the effect of the information quality variable on shopping behavior is significant (P <0.001; β<0.365). Also, the results presented in Table 8 from the implementation of the Bootstrapping method indicate that the total indirect effect of information quality on purchasing behavior through the attitude of individuals towards using the source is significant. As a result, people's attitude towards using the source has a mediating effect (P = 0.023;β = 0.275).

CONCLUSION
The overall aim of this study was to determine the effect of source credibility and information quality on the attitude towards the use of source and shopping behavior of electronic information products among students of Ahvaz Jundishapur University of Medical Sciences. The source credibility as the extent to which the receivers believed that information of a source is believable, appropriate, and reliable (Petty& Cacioppo,1986)and it is one of the important attributes that affects the decision of users to use the source. In this study, using the reliability sub-scales, being a specialized source information and attractiveness were investigated. The information quality is also closely related to the value of information. When retrieving information, factors such as proportionality, reliability, credibility, and sense making over time, completeness, accuracy, aestheticism and timeliness are crucial determinants of quality information (Bjornstad & Kalseth, 1996). In this study, using the relevance subscales, accuracy and comprehensiveness were studied. An attitude that is an expression of opinion about an object or an individual or an event, which judgment and evaluation (independent of its positive or negative) lie in it (Baron and Don,2003).

Attitude is one of the most important and influential factors in the behavior or behavioral intent of individuals, which is highlighted more than anything else in the TRA and the planned behavior developed by Fishbein & Ajzen of the seamstress. The e-shopping behavior is also the physical, emotional and mental activity that individuals do when choosing, buying, using, and disposal of goods and services to meet their needs and desires. In other words, a set of activities that are directly related to the acquisition, consumption, and disposal of goods and services. These activities include the decision-making process that takes place before and after these actions (Hamidnia & Shokrkzizadeh, 2016). Shopping behavior can be the final point of a continuum that begins with perceived credibility and quality, leading to the formation of attitudes and, consequently, the occurrence of this behavior. According to the results, the four components are relatively favorable. These findings indicate that students of Jundishapur University of Medical Sciences assessed the information on electronic information sources such as websites as moderate and relatively favorable in terms of credibility and quality indicators; students' attitudes toward behavior Electronic shopping is positive and there is a tendency for this issue, and respondents behave e-shopping. In comparison with the results of previous studies, the findings of this study were consistent with part of the findings of studies conducted by Keshavarz et al. (2015), Kim & Choi (2012), Coursaris & Osch (2016), and Fanoberova and Kuczkowska (2016).

The findings of the hypothesis test showed that the relevance of the source information, the accuracy of the source information and the comprehensiveness of the source as a substitute for the quality of information has a positive and significant effect on the people's attitude toward using that source. This means that if the people feel that the information they receive from a source is more relevant to their needs and is more accurate and that source is comprehensive, complete, and not flawed, this affects their attitude towards the use of that source. The results of this study are in line with the findings of the study conducted by Fanoberova and Kuczkowska(2016). Also, the results showed that source reliability, beinga specialized source information, and attractiveness as sources of information credibility attributes has a positive and significant effect on the attitude of individuals toward using that source. In other words, if the people feel that the information they receive is from an authoritative and reliable source, it is a source of specialized information that has the attractiveness and diversity in the form and style of the presentation, this affects their attitude towards the use of that source. The results of this study are in line

with the findings of the study conducted by Fanoberova and Kuczkowska(2016). Meanwhile, the results showed that people's attitude towards using information sources have a positive and significant effect on their e-shopping behavior. The results of this study are consistent with the findings of study that conducted by Fanoberova and Kuczkowska (2016).

The results of the test of the main hypotheses of the effect of the mediator variable with the self-regulation method indicated that the effect of the information quality variable on shopping behavior was significant and the total indirect effect of information quality on shopping behavior was significant through the attitude of individuals towards using the source;as a result, it can be said that the attitude of individuals towards using a source has an intermediary effect. Simply put, the quality of the source information leads to a positive attitude toward the use of the information source and, thus, improves the e-shopping behavior of electronic information products. The findings of this study are in agreement with the results of studies conducted by Atika et al. (2017), and Fanoberova and Kuczkowska(2016). The findings also showed that the direct effect of source credibilityvariable on shopping behavior was not significant; however, the total indirect effect of source credibilityon shopping behavior was due to the attitude of individuals towards using a meaningful source, and the type of the effect is indirect. Simply put, the credibility of the source of information creates a positive attitude towards the use of the information source, and thus improves the electronic shopping behavior of electronic information products. The findings of this study are in agreement with the results of studies conducted by Atika et al. (2017), and Fanoberova and Kuczkowska (2016) and Hui(2017). Based on the results, it is suggested:

Reliability and quality of information can partly guarantee to reuse information and information sources by people from; therefore, it is recommended to use the necessary strategies for assurance in customers. For this purpose, it is necessary to consider the necessary solutions for providing fully relevant and perfect information about electronic information products; it may be worth a customer needs assessment and to get their comments' feedback. In addition, the information accuracy is inherent and needs for the correct data. In addition, the lack of proper information may reduce the individuals' trust in a resource. Because electronic information products are very dynamic and there are many changes in this area every day, attention to the issue of accuracy is vital. In addition, it is suggested to provide comprehensive information about products. Given the impact of information quality on people's decision and behavior, it is necessary to include more specialized information about each product, since speakking in generalities and ambiguity will not help to create positive attitudes and shopping behaviors. It is also suggested that visual appeals, diversity in information delivery methods and interoperability of information sources be welcomed and the necessary mechanisms be considered; Given the impact of information quality on people's decision and behavior, it is necessary to include more specialized information about each product, since speaking in generalities and ambiguity will not help to create positive attitudes and shopping behaviors. It is also suggested that visual appeals, diversity in information delivery methods and interoperability of information sources be welcomed and the necessary mechanisms are considered.

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BIBLIOGRAPHIC REFERENCES

Al-Nasser, M., Yusoff, R. Z., Islam, R., & Al-Nasser, A. (2014). *Effect of consumers' trust and attitude toward online shopping. American Journal of Economics and Business Administration*, Vol. 6(2), 58. doi: 10.3844/ajebasp.2014.58.71

Atika, A., Kusumawati, A., & Iqbal, M. (2017). *The effect of electronic word of mouth, message source credibility, information quality on brand image and purchase intention*. EKUITAS (Jurnal Ekonomi dan Keuangan), Vol. 20(1), 94-108.
http://digilib.mercubuana.ac.id/manager/t!@file_artikel_abstrak/Isi_Artikel_314666153234.pdf.

Baron, R. A., & Byrne, D. (2003). Social Psychology, 10th edition, New York: Pearson Education, Inc.

Bjornstad, O. B. and Kalseth, K. (1996). *Executive information systems (EIS) and information quality:* Newroles and challenges for information professionals in the*business environment*, FID Occasional Paper, Vol. 12: 77-82.

Cetina, I., Munthiu, M-C. & Radulescu, V. (2012).*Psychological and social factors that influence online consumer behavior*. Procedia Social and Behavioral Science, Vol. 62: 184-188. doi: 10.1016/j.sbspro.2012.09.029.

Chang, C. C., & Chin, Y. C. (2010). *The impact of recommendation sources on online purchase intentions: The moderating effects of gender and perceived risk*. World Academy of Science, Engineering and Technology, Vol. 66, 111-114. https://tmu.pure.elsevier.com/zh/publications/the-impact-of-recommendation-sources-on-online-purchase-intention.

Cheung, C. M., Lee, M. K., & Rabjohn, N. (2008). *The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities*. Internet Research, Vol. 18(3), 229-247. https://www.scopus.com/record/display.uri?eid=2-s2.045749127825&origin=recordpage

Coursaris, C. K., & Van Osch, W. (2016). Exploring the effects of source credibility on information adoption on YouTube. In International Conference on HCI in Business, Government, and Organizations (pp. 16-25). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-319-39396-4_2

Dekker, H., Dijkgraaf, B., & Meijerink, F. (2007). Behaviour and attitude: Effect of attitude on behavioraldesire with respect to foreign countries and peoples and Germany and Germans in particular. Culture and Conflict. Amsterdam: Aksant Academic Publishers, 197-215. https://www.researchgate.net/publication/234038420_Behaviour_and_attitude_effect_of_attitude_on_behavioural_desire_with_respect_to_foreign_countries_and_peoples_and_Germany_and_Germans_in_particular.

Eagly, A. H., & Chaiken, S. (2007). *The advantages of an inclusive definition of attitude*. Social cognition, Vol. 25(5), 582-602 .https://doi.org/10.1521/soco.2007.25.5.582

Eppler, M. J. (2006). *Managing information quality: Increasing the value of information in knowledge-intensive products and processes*. Springer Science & Business Media. Retrieved from: https://www.springer.com/gp/book/9783540314080

Fabrigar, L. R., Petty, R. E., Smith, S. M., & Crites Jr, S. L. (2006). *Understanding knowledge effects on attitude-behavior consistency: The role of relevance, complexity, and amount of knowledge*. Journal of Personality and Social Psychology, Vol. 90(4), 556. https://www.ncbi.nlm.nih.gov/pubmed/16649855.

Faezi, M. & Norouzi, H. (2015). *Factors affecting customers' desire to purchase virtual stores (Case Study: Al Digital Store)*. Rahbordhaye Bazargani, Vol. 22 (5): 1-14, (In Persian).

Fanoberova, A., & Kuczkowska, H. (2016). Effects of source credibility and information quality on attitudes and purchase intentions of apparel products: A quantitative study of online shopping among consumers in Sweden. MA Thesis. Umea School of Business and Economics.https://umu.diva-portal.org/smash/get/diva2:946730/FULLTEXT01.pdf.

Fortes, N. & Rita, P. (2016).*Privacy concerns and online purchase behaviour: Towards an integrated model*. European Research on Management and Business Economics, Vol. 22: 167-176. http://dx.doi.org/10.1016/j.iedeen.2016.04.002

George, J. F. (2004). *The theory of planned behavior and internet purchasing*. Internet Research, Vol. 14(3), 198-212. doi/full/10.1108/10662240410542634

Hamidnia, A. & Shokrkzizadeh, A. R. (2016). *Consumer behavior, brand equity and social media-based marketing in the luxury goods market*.2nd National Economics, Management and Accounting Conference. Chamran University, Ahvaz, Iran, (In Persian)

Hui, T. X. (2017). *The effect of source credibility on consumers' purchase intention in Malaysia online community*. Journal of Arts & Social Sciences, Vol. 1(1): 12- 20. Retrieved from: http://ruijass.com/wp-content/uploads/2017/07/2-001TXH-Final.pdf.

Karimian, M. A & Horri, A. (2019). *An investigation into the users' role in the credibility assessment ofweb-based information resources from region one of Islamic Azad university (IAU) faculty members' view point*.Library and Information Science Research, Vol.8 (1): 101-118. https://infosci.um.ac.ir/index.php/riis/issue/view/1616

Keshavarzi, H. (2014). *How credible is information on the web: Reflections on misinformation and disinformation*. Infopreneurship Journal, Vol. 1(2): 1-17: https://ieprints.rclis.org/23451

Keshavarz, H., Shabani, A. & Wasefi, M. R. (2015). *Validation of health information available on the Web, by students and faculty members of medical, nursing and midwifery fields.* Journal of Academic Librarianship and Information Research, Vol. 4 (48): 477-499, (In Persian) Retrieved from: https://jlib.ut.ac.ir/article_53759.html.

Kim, S., & Choi, S. M. (2012). *Credibility cues in online shopping: An examination of corporate credibility, retailer reputation, and product review credibility.* International Journal of Internet Marketing and Advertising, Vol. 7(3), 217-236.
https://www.inderscienceonline.com/doi/full/10.1504/IJIMA.2012.047425

Kim, B., & Han, I. (2011). *The role of utilitarian and hedonic values and their antecedents in a mobile data service environment*. Expert Systems with Applications, Vol. 38(3), 2311-2318. Retrieved from: https://doi.org/10.1016/j.eswa.2010.08.019.

Kisubika, P. (2011). Assessing and enhancing the information quality maturity level in an organization: the case of Shell Global Functions IT (Master's thesis, University of Twente) https://essay.utwente.nl/61746/1/MSc_P_Kisubika.pdf

Kooli, K., Ben Mansour, K., & Utama, R. (2014). *Determinants of online trust and their impact on online purchase intention*. International Journal of Technology Marketing, Vol. 9(3), 305-319. https://www.inderscience.com/info/inarticle.php?artid=63858

Kriscautzky, M., & Ferreiro, E. (2014). *La confiabilidad de la información en Internet: criterios declarados y utilizados por jóvenes estudiantes mexicanos*. Educação e Pesquisa, Vol. 40(4), 913-934 http://dx.doi.org/10.1590/s1517-97022014121511

Lee, Y. W., Strong, D. M., Kahn, B. K., & Wang, R. Y. (2002). *AIMQ: A methodology for information quality assessment*. Information & management, Vol. 40(2), 133-146.
https://www.sciencedirect.com/science/article/pii/S0378720602000435

Li, R., & Suh, A. (2015). *Factors influencing information credibility on social media platforms: Evidence from Facebook pages*. Procedia computer science, Vol. 72, 314-328.
https://www.sciencedirect.com/science/article/pii/S1877050915036078

Liao, S. H., & Wu, C. C. (2010). *System perspective of knowledge management, organizational learning, and organizational innovation*. Expert systems with Applications, 37(2), 1096-1103. Retrieved from: https://www.sciencedirect.com/science/article/pii/S0957417409005946

Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). *Factors influencing online shopping behavior: The mediating role of purchase intention*. Procedia Economics and Finance, Vol. 35, 401-410. Retrieved from: https://doi.org/10.1016/S2212-5671(16)00050-2.

Metzger, M. J., & Flanagin, A. J. (2013). *Credibility and trust of information in online environments: The use of cognitive heuristics*. Journal of Pragmatics, Vol. 59, 210-220.
https://www.sciencedirect.com/science/article/pii/S0378216613001768

Metzger, M. J., Flanagin, A. J., Eyal, K., Lemus, D. R., & McCann, R. M. (2003). *Credibility for the 21st century: Integrating perspectives on source, message, and media credibility in the contemporary media environment*. Annals of the International Communication Association, Vol. 27(1), 293-335.doi/abs/10.1080/23808985.2003.11679029

Ohanian, R. (1990). *Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness*. Journal of advertising, Vol. 19(3), 39-52. https://www.jstor.org/stable/4188769m

Perloff, R.M., (2003). The Dynamics of Persuasion: Communication and Attitudes in the 21st Century, Lawrence Erlbaum Associates.

Petty, R. E., & Cacioppo, J. T. (1986). The Elaboration Likelihood Model of persuasion, New york: Berkowitz.

Ramezanian, J. (2001). *Relationship between Internet Marketing with Customers Shopping Behavior (Case Study: Allameh Tabataba'i University Graduate Students)*. Nabiullah Dehghan, Supervisor, Allameh Tabatabaei University: Faculty of Management and Accounting, (In Persian).

Rieh, S. Y., & Danielson, D. R. (2007). *Credibility: A multidisciplinary framework*. Annual Review of Information Science and Technology, Vol. 41(1), 307-364.Retrieved from: http://rieh.people.si.umich.edu/~rieh/papers/rieh_ARIST2007.pdf.

Robins, D., Holmes, J., & Stansbury, M. (2010). *Consumer health information on the Web: The relationship of visual design and perceptions of credibility*. Journal of the American Society for Information Science and Technology, Vol. 61(1), 13-29.   https://dl.acm.org/citation.cfm?id=1672975

Seddig, D., & Davidov, E. (2018). *Values, attitudes toward interpersonal violence, and interpersonal violent behavior*. Frontiers in Psychology, Vol. 9, 604. doi: 10.3389/fpsyg.2018.00604.

Shahibi, M. D. M. S., Mazlan, M. A., Noor, H. M., & Hanafiah, M. S. M. (2013). *Perception towards the credibility of information in internet among young Malay generation*.International Journal of Education and Research, 1(7): 1-8. https://www.ijern.com/journal/July-2013/44.pdf.

Sin, S. S., Nor, Kh. Md. & Al-Agaga, A. M. (2012).*Factors affecting Malaysian young consumers' online purchase intention in social media websites*. Procedia- Social and Behavioral Sciences, Vol. 40: 326-333. doi: 10.1016/j.sbspro.2012.03.195. https://www.sciencedirect.cyom/science/article/pii/S1877042812006623.

Sinitsyna, A. (2014). *Impact of information culture and information behaviour on information quality*. Journal of Statistics and Management Systems, Vol. 14(2), 375–392. Retrieved from http://researcharchive.vuw.ac.nz/handle/10063/372

Thamizhvanan, A. & Xavier, M.J. (2013). *Determinants of customers' online purchase intention: An empirical study in India*.Journal of Indian Business Research, Vol. 5(1):17-32. https://doi.org/10.1108/17554191311303367

Vance, A., Elie-Dit-Cosaque, C., & Straub, D. W. (2008). *Examining trust in information technology artifacts: The effects of system quality and culture*. Journal of management information systems, Vol. 24(4), 73-100.doi/abs/10.2753/MIS0742-1222240403.