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The Effect of the Information System Information on Satisfaction of Users by Mediating Role of the Perceived Value of Information*

Abstract

This study investigates the effect of the information quality on the satisfaction of users of the information system considering the mediating role of the perceived value of information. In this applied study, conducted using a causal-correlation approach, the study population was all users of information system in Ahvaz public libraries. A sample size of 384 subjects was selected by simple random sampling. Data were collected by a researcher-made questionnaire based on previous studies. The tools were validated by face validity and their reliability was confirmed using the Cronbach's alpha (in the value of $\alpha = 0.812$, 0.866 and 0.880 , respectively) and the results were analyzed by SEM using SPSS 21 and AMOS 5 software. Based on the results of the hypothesis test, the information quality of the information system has a positive and significant effect on user satisfaction ($P = 0.000$; $\beta = 304$), and perceived value of information ($P = 0.000$; $\beta = 0.000$). Also, the perceived value of information has a significant effect on user satisfaction ($P = 0.000$; $\beta = 644$). Meanwhile, the information quality of information system has a significant effect on user satisfaction with the mediating role of perceived information value ($P = 0.000$, $\beta = 0.834$). We conclude that the improvement of the information system quality in terms of information quality can improve the users' perception of the value of information and their satisfaction.

Keywords: Information quality, information system quality, perceived value of information, user satisfaction, public libraries.

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El efecto de la información del sistema de información sobre la satisfacción de los usuarios mediante el papel mediador del valor percibido de la información

Resumen

Este estudio investiga el efecto de la calidad de la información sobre la satisfacción de los usuarios del sistema de información considerando el papel mediador del valor percibido de la información. En este estudio aplicado, realizado utilizando un enfoque de correlación causal, la población de estudio fueron todos los usuarios del sistema de información en las bibliotecas públicas de Ahvaz. Se seleccionó un tamaño de muestra de 384 sujetos mediante muestreo aleatorio simple. Los datos fueron recogidos por un cuestionario hecho por el investigador basado en estudios previos. Las herramientas fueron validadas por validez aparente y su confiabilidad fue confirmada mediante el alfa de Cronbach (en el valor de $\alpha = 0.812, 0.866$ y 0.880 , respectivamente) y los resultados fueron analizados por SEM utilizando los softwares SPSS 21 y AMOS 5. Con base en los resultados de la prueba de hipótesis, la calidad de la información del sistema de información tiene un efecto positivo y significativo en la satisfacción del usuario ($P = 0,000$; $\beta = 304$) y el valor percibido de la información ($P = 0,000$; $\beta = 0,000$). Además, el valor percibido de la información tiene un efecto significativo en la satisfacción del usuario ($P = 0,000$; $\beta = 644$). Mientras tanto, la calidad de la información del sistema de información tiene un efecto significativo en la satisfacción del usuario con el papel mediador del valor de la información percibida ($P = 0,000$, $\beta = 0,834$). Concluimos que la mejora de la calidad del sistema de información en términos de calidad de la información puede mejorar la percepción de los usuarios sobre el valor de la información y su satisfacción.

Palabras clave: calidad de la información, calidad del sistema de información, valor percibido de la información, satisfacción del usuario, bibliotecas públicas.

1. Introduction

1.1 Statement of the Problem

Public libraries are one of the most effective institutions in the direction of cultural development and raising the awareness of the community. Public libraries, with the intention and purpose of "serving the

people," provide public services in a variety of ways and in useful ways. According to UNESCO statement, the Public Library is a prestigious reference for the manifestation of important issues, such as continuous and endless education of the public, the advancement of knowledge and public culture, the free offering of creative human thoughts, the flourishing of talent and community abilities. Of course, the general public can benefit from their facilities regardless of race, nationality, age, gender, religion, language, social status, or education (Emadkhorasani, 2013). Like other libraries, public libraries are also involved in providing and organizing appropriate information and knowledge for easy access and use (Ugwoke & Omekwu, 2014); complex organizations that integrate different inputs to produce diverse outputs will provide separate services for the public and keep books related to ancient history for future generations (Goccio et al. 2018). In a dynamic and rapidly changing information environment where people often start accessing information with the Web or social media, it's still unclear how the general public understands the usefulness of public libraries (Joanna Sin & Vakkari, 2015).

According to Jordan (quoted by Joanna Sin & Vakkari, 2015) in the digital era, with a large amount of information available, the role and value of official information institutions that use the budget/tax base, such as questionable public libraries, is questionable. Since public libraries are institutions that use public funds and concessional grants from municipalities, their performance is more and more in the focus of attention. In addition, citizens' dissatisfaction with the services provided by public organizations has increased in recent years (Cravens & Piercy, 2003). However, although today, much information is available through the Internet and other media, public libraries are still a source of information in the information landscape of individuals. But with the presence of the millennial generation users, it seems that new challenges are faced with public libraries, and addressing these challenges requires identifying and addressing the challenges of information services of libraries so that decision-makers can, depending on the circumstances, adopt different strategies (Joanna Sin, 2012). Meanwhile, the use of information systems capabilities has been one of the priorities of managers.

The rapid growth of information technologies and the ability to exploit their capabilities effectively and efficiently turned into an incentive for organizations to think about implementing technology information systems. Investing in information and communication technology has not only succeeded in achieving organizational goals, but it has also shaped the competitive advantage among customers (Norfazlina et al., 2016). According to Guo (2019), although libraries have accepted the use of information systems to manage services and resources over the past two decades; however, it is necessary to have a proper understanding of its mechanism in order to be able to successfully implement technological innovations in their organization. One of the most influential dimensions of information systems is the quality of information that addresses the quality of information resources in support of the needs of users and includes dimensions such as completeness, easy understanding, relevancy, precision, accuracy, validity, and so on.

Fontaine defines quality as conformance to requirements, readiness for use, inherent superiority or value (Alavi & Leidner, 2001). The quality of information is defined as the property of information that consistently matches the expectations of employees and end customers (Tuomi, 1999); and it's a degree in which information with content, shape, and time features gives end users particular value. Information quality is the attribute of information that meets the technical, cognitive and aesthetic needs of information producers, managers, consumers and experts (Eppler, 2006); with valuable criteria specified by the user, and determined and assessed according to a certain standard of standards (Kahn et al. 2002; Kisubika, 2011), and it is suitable for data consumers (Wang, 1998; Keith, 2008; Eppler, 2006; Popović et al. 2009). Quality of information is a component that leads to an understanding of the value of information used by the user and can lead to end-user satisfaction in a service organization such as a library that focuses on information-based services. Because customers usually meet their needs for services and products in terms of perceived value; in marketing, the perceived value is defined as a customer's assessment of the costs and benefits of purchasing a product or using the service (Zeithaml, 1998). The results of previous studies indicate that perceived value increases customer satisfaction and future purchases (Khorshidi

et al. 2010). According to Spreng et al. (2009), managers of service organization often use criteria and indicators of customer service quality and satisfaction to measure the degree of customer needs met by the organization.

Oliver (1999) describes satisfaction as "complete customer delivery." In fact, satisfaction is the result of a customer's judgment as to the extent to which the characteristics of a product or service are capable of meeting customer expectations at the optimal level. High-quality information services are one of the most important factors in customer satisfaction with libraries, and only libraries can provide this service with a stable and comprehensive attitude towards the customer and user and have a profound commitment to it. Because customers with more satisfaction are more likely to be loyal and return to use the services (Almasi et al., 2013).

Assessing the satisfaction of information service users and examining the factors affecting it will provide a fundamental and valuable transformation in how services are delivered (Poll & Boekhorst, 2007). Evaluation and improvement of information services are essential in order to meet the demands and needs of users for the successful support of the organization's goals, and it is sought to orientate the services and resources that are directly related to the needs of the community (Hasanzadeh & Najafgholinegad, 2008). Since the public libraries of the country have implemented different information systems in the past decade and replaced the new system in a shorter time period, it is necessary to examine the dimensions of its impact. Therefore, the main question of the present research is whether the information quality of information systems of public libraries, by the perceived value of information, is effective in user satisfaction?

2. Literature Review

The results of various databases show that there is no study background, despite the variables such as satisfactory, the perceived value of information in the area of information systems of libraries. Basically, these studies have been new in libraries and have paid much attention in the field of public services and services. What is inferred from the review of various studies is that the quality of services (Fakhri et al., 2016; Theodorakis

et al., 2013; Ju et al. 2019) along with perceived value (Ebrahimi & Mansouri, 2013), has affected customer satisfaction and loyalty (Smaeili et al., 2014; Saeedi et al., 2015; Jiang & Zhang, 2016). The results of the study conducted by Maebood Mojdehi et al. (2016) showed that the quality of software systems affects user satisfaction. The results of a study conducted by Fatemian & Farhadpoor (2018) also showed that the quality of service has a significant effect on the loyalty and satisfaction of users of public libraries in Khuzestan with the mediating role of perceived value of information. The results of a study conducted by Mazraeh (2017) also showed that the quality of the information system of the public libraries in terms of system quality, information quality, and service quality has an impact on reducing the cost of search and management, improving the quality of information services, supporting user information and publishing industry, controlling the cost of providing services and enhancing intra-organizational performance as organizational dimensions.

The results of a study conducted by Ladhari & Morales (2008), entitled "Perceived service quality, perceived value and recommendation: A study among Canadian public library users" (p. 352), showed that components of service and the library as a place and control information are interpreting perceived value. In addition, service quality and perceived value have a significant relationship with suggestions. In considering the relationship between perceived value and the use of the information source when making strategic decisions for seventeen Chinese business executives, Lin et al. (2014) also found that managers prefer in-house personal information resources. Meanwhile, the ranking of information sources varies according to the managers' affiliation. The results of this study led to the revision of typology of the information resources by De Alwis et al. (cited by Lin et al. 2014), and emphasized that organizational contexts play a decisive role in the use of information resources. In a study, Hapsari et al. (2016) also found that perceived value plays a partial mediating role in the relationship between customer service quality and customer satisfaction. Also, the results of the study conducted by Laumer et al. (2017) regarding the relationship between information quality and user satisfaction in organizational content management systems showed that information quality dimensions play an important role in user satisfaction. Pevec and Pisnik

(2018) also evaluated the conceptual model of the perceived value of health services and its impact on patient loyalty and satisfaction. Their results showed that perceived value has a significant effect on satisfaction and loyalty. The results of a study conducted by Rafsandjani (2018), entitled Analyzing the effect of trust and perceived value on purchase intention (case study of Shopee), showed that empirical value, functional value, market value, and belief values have a significant effect on purchasing intentions. In another study, Yu and Lee (2019) also emphasized the influence of the perceived value of consumer on the intention to buy new products, and the results showed that the dimensions of the perceived value had a positive and significant effect on their attitude toward the product and its buying behavior. Based on the results of the study conducted by Nirwanto and Andarwati (2019), it was found that the information system's information quality affects the perceived usefulness and end-user satisfaction. A literature review indicates that satisfaction of users and customers is still among the concerns of managers of different organizations, and studies have paid their attention to the various factors affecting it. But in the field of libraries, and especially the information systems of the library, these studies are beginning and need more attention.

3. Methodology

Since the present research investigates the effect of the information quality of the information system of Ahvaz public libraries on users' satisfaction with regard to the mediating role of perceived value, in terms of purpose, it is applied research. Due to the fact that the causal relationship between the variables is investigated, a descriptive method was used with a causal correlation approach. The statistical population of this study was the total number of 15,800 people using information services of public libraries in Ahvaz city. Based on Morgan's table, 376 people were selected as samples. To collect data, the tools of the researcher-made questionnaire based on the information quality of Rezaei's information system (2016), Vaezi's satisfaction (2013), and Eggert and Ulaga's Customer Perceived Value (2002) were used. The validity of the tools was confirmed by their face validity method and their reliability was confirmed using Cronbach's alpha method for information system quality ($\alpha = 0.812$), satisfaction

($\alpha = 0.666$) and perceived value ($\alpha = 0.803$). Data collection was done by the field distribution method of the questionnaire. For this purpose, 376 distribution questionnaires (100% return rate) were collected and analyzed. Regarding the nature of the subject and the variables of the research, relations between the variables were investigated using the structural equation method (SEM), and the desired causal model was tested. Statistical analysis was performed using SPSS21 and AMOS5 software.

4. Results

To check the status of data normalization and appropriate test selection, the Kolmogorov-Smirnov test was used (Table 1).

Table 1. Smirnov-Kolmogorov test results for determining the status of the data normality

Variable	N	Z	Sig.	Normal / non-normal distribution
Information System's Information Quality	376	0.072	0.104	Normal
Users' satisfaction	376	0.182	0.099	Normal
Perceived value of information	376	0.200	0.084	Normal

As the results show, the main variables in this study (information system's information quality, user satisfaction and perceived value of information) are normalized. Therefore, parametric tests were used to analyze the data. In order to investigate the status of

research variables, the following questions were presented:

Q1: How is the status of information system quality of public libraries from the view of users of Ahvaz public libraries?

Q2: How is the status of users' satisfaction with the information system of Ahvaz public libraries?

Q3: How is the users' perceived value of information available to Ahvaz public libraries?

To examine the questions, the respondents' answers to the questions of the research questionnaire about the situation of variables was interpreted using the Nunnally value spectrum in 4 levels (favorable, relatively favorable, relatively unfavorable, unfavorable). As the results of Table 2 show, 8.12%, 63%, 1.22% , and 1.2% of individuals have expressed that the information system's information quality is relatively favorable, relatively unfavorable, unfavorable, and favorable, respectively. In terms of user satisfaction, the results also indicate that 17%, 5.53%, 29%, and 5.0% of individuals have expressed that users' satisfaction is favorable, relatively favorable, relatively unfavorable, and unfavorable, respectively. The results of the perceived value of information show that 3.46%, 3.34%, 6.17%, and 9.1% of individuals have expressed the perceived value of information is favorable, relatively favorable, relatively unfavorable, and unfavorable, respectively. To assess the difference between measurement levels of variables, a single-sample t-test was used and the results are presented in Table 3.

Table 2. Frequency distribution of responses to the level of desirability of an information system's information quality, user satisfaction and perceived value of Information

Variable	Frequency	Favorable	Relatively favorable	Relatively unfavorable	Unfavorable	Total
Information System's Information Quality	Number	48	237	83	8	376
	Percentage	12.8	63	22.1	2.1	100
Users' satisfaction	Number	64	201	109	2	376
	Percentage	17	53.5	29	0.5	100
Perceived value of information	Number	174	129	66	7	376
	Percentage	46.3	34.3	17.6	1.9	100

Source: Own elaboration.

Table 3. Single sample t-test results for quality variables of information system's information quality, satisfaction and perceived value of information

Variable	Theoretical average = 3			
	Average	t-statistic	Degrees of freedom	(Sig.)
Information System's Information Quality	2.864	86.092	375	0.000
Users' satisfaction	2.869	81.546	375	0.000
Perceived value of information	3.250	78.047	375	0.000

Source: Own elaboration.

As the results (Table 4) show that the average for information system's information quality (2.864), users' satisfaction (2.869) is less than the theoretical average and for the perceived value of information (250.3), it is more than the theoretical average and this analysis is significant at a level of Sig = 0.000. So, we can say that There is a significant difference between different levels of information system's information quality, users' satisfaction and perceived value of information (favorable, relatively favorable, relatively unfavorable, and unfavorable).

Then, to evaluate the hypotheses regarding the information system's information quality (independent variable) on users' satisfaction (dependent variable) and also, the mediating role of perceived value of information, SEM and AMOS software were used in two modes of T-values (for analyzing the hypothesis) and Standardized Estimation (for analyzing the severity of the effects of variables on each other) on each other and severity of the effects of variables on each other was determined using standardized coefficients (path coefficient) (Figure 1).

In order to determine the effect of the information system's information quality of public libraries on users' satisfaction, the following hypothesis was proposed:

H0: The quality of the information system of public libraries has no significant effect on user satisfaction.

H1: The quality of the information system of public libraries has a significant effect on user satisfaction.

As Figure 1 and Table 5 show, the P-value obtained from the output software (0.000) to evaluate the effect of the information quality of the information system of the public libraries on users' satisfaction is less than

-0.05, which shows the information quality of the information system of the public libraries has a significant effect on user satisfaction. The results of path analysis also showed that the impact coefficient is 0.304, which, in turn, shows about 0.304% of users' satisfaction changes are explained by the information system's information quality. In other words, a changing unit in the information system's information quality changes users' satisfaction by 30.3%.

In order to determine the effect of the information system's information quality of the public libraries on the perceived value of information, the research hypotheses were posed as follows:

H0: The information quality of the information system of the public libraries has no significant effect on the perceived value of information.

H1: The information quality of the information system of the public libraries has a significant effect on the perceived value of information.

As Figure 1 and Table 6 show, P-value obtained from the output of software (0.000) to investigate the impact of the information quality of the information system of the public libraries on the perceived value of information is less than 0.05, which shows the information quality of the information system of the public libraries has a significant effect on the perceived value of information. Also, the results of path analysis (Table 6) showed that the path coefficient between the two variables was .0822, which shows 82.2 % of the changes in the perceived value of information is explained by the information quality of the information system. It means that a unit of change in the information quality of the information system changes the perceived value of information by 82.2 %.

Table 4. Desirability assessment of the information system’s information quality, users’ satisfaction, and perceived value of users based on Nunnally scale (1967)

Description	Unfavorable	Relatively unfavorable	Relatively favorable	Favorable
Values	1 to 1.99	2 to 2.99	3 to 3.99	4 to 5
Information system’s information quality	----	✓ 2.864	----	----
Users’ satisfaction	----	✓ 2.869	----	----
Perceived value of users	----	----	✓ 3.250	----

Source: Own elaboration.

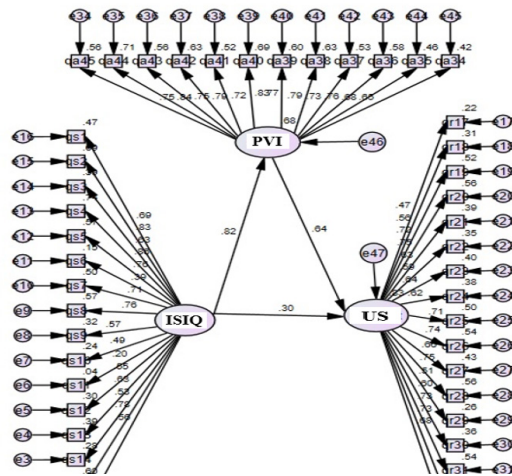


Figure 1. The structural relationship model between the information system’s information quality (ISIQ), users’ satisfaction (US) and perceived value of information (PVI).

Source: Own elaboration.

Table 5. The path analysis’ results of the effect of the information quality of the information system of the public libraries on users ’ satisfaction

Row	Relationship	Impact coefficient	P-value	Test result
1	The information system’s information quality ==> users’ satisfac-tion	0.304	0.000	Hypothesis was verified.

Source: Own elaboration.

Table 6. The results of path analysis of the effect of the information quality of the information system of the public libraries on the perceived value of information

Row	Relationship	Impact coeffi-cient	P-value	Test result
1	The information system’s information quality ==> Perceived value of information	8.822	0.000	Hypothesis was verified.

Source: Own elaboration.

Also, in order to determine the impact of the perceived value of information on user satisfaction of public libraries, hypothesis was posed as follows:

H0: The value of the perceived value of information has no significant effect on public libraries' users' satisfaction.

H1: The perceived value of information has a significant effect on public libraries' users' satisfaction.

As Figure 1 and Table 7 show, P-value obtained from the output of software (0.000) to investigate the impact of the perceived value of information on user satisfaction is less than 0.05, thus the perceived value of information has a significant impact on public libraries' user satisfaction. Also, the results of path analysis (Table 7) showed that the path coefficient between the two variables was 0.644, which shows 0.644 % of the changes in the dependent variable of users' satisfaction is explained by the perceived value of information as an independent variable. It means that a unit of change in the perceived value of information changes users' satisfaction by 64.4%.

Finally, with the aim of determining the effect of the information quality of the information system of the public libraries on the users' satisfaction with regard to mediating role of the perceived value of information, the hypothesis was posed as follows:

H0: The information quality of the information system of the public libraries has no effect on the users' satisfaction in Ahvaz.

H1: The information quality of the information system of the public libraries has an effect on the users' satisfaction with the mediating role of the perceived value of information.

As we see in Figure 1 and Table 8, the P-value obtained from software output (0.000) to investigate the impact of the information quality of the information system of the public libraries on users' satisfaction with mediating role is less than 0.05, thus the information quality of the information system of the public libraries by the perceived value of information has a significant impact on user satisfaction. The findings of this research show that the information quality of the information system of the public libraries has generally 83.4 % (30.4% directly, and 53% indirectly through the perceived value of the information system) an effect on the users' satisfaction.

(Direct effect of quality of information System) 30.4 %
(Effect of total quality of information System) 0.834 =
Indirect Impact (53%)

In order to fit the model, corresponding indices in Table 9 show that the research model has a good fit.

As the results of Table 9 shows, the normal Chi-square index (CMIN/df) is equal to 2.248, which values less than 3 are suitable for model fitting. The good fit index (GFI) is equivalent to 0.960. The Bentler-Bonett Normed Fit Index (NFI) is 0.911. The Comparative Fit Index (CFI) is 0.924, which all values higher than 0.90 represent a good fitting model. Also, the Root-Mean-Square Residual Index (RMR) is 0.040, that if the value is closer to zero, indicates a better fit.

Table 7. The path analysis' results of the perceived value of information effect on the public libraries' users' satisfaction

Row	Relationship	Impact coefficient	P-value	Test result
1	Perceived value of information ==> Users' satisfaction	0.644	0.000	Hypothesis was verified.

Source: Own elaboration.

Table 8. The path analysis' results of the perceived value of information effect on the public libraries' users' satisfaction

Row	Relationship	Direct Impact	Indirect Impact	Total impact	P-value
1	The information quality in the information system of the public libraries ==> User satisfaction	0.304	0.530	0.834	0.000

Source: Own elaboration.

Table 9. Fitting indicators of the research model

Index title	Accepted Domain	Value	Result
X2/df	X2/df<3	2.248	The model was verified.
RMSEA	RMSEA<0.09	0.068	The model was verified.
GFI	GFI>0.90	0.960	The model was verified.
CFI	CFI>0.90	0.924	The model was verified.
NFI	NFI>0.90	0.911	The model was verified.
RMR	Close to zero	0.040	The model was verified.

Source: Own elaboration.

According to reported indicators-, the above-mentioned model is a well-fitted and with good validity and the mediating role of the perceived value of information systems in the -causal relationship between information system’s information quality with the satisfaction- of users Is confirmed.

5. Discussions

The aim of this study was to investigate the effect of the information quality of the information system of Ahvaz public libraries on the users’ satisfaction- according to the mediating role of the perceived value of information. Quality of information is the inherent usefulness of information related to customers (Keith, 2008); it is suitable for the intended purpose in operations, decision making and planning (Redman, 2001); it is the degree to which the information has the characteristics of the content, shape, and time, and valued the particular end users (Brien, 1991, quoted by Kisubika, 2011); in addition, it meets the applied, technical, cognitive and aesthetic needs of the information producers, managers, consumers, and experts due to its specific features (Eppler, 2006). The quality of the information comes from the user's perspective since most researchers believe that information used by the user, according to his or her requirements, determines the quality of an information product or service. Given the public libraries’ nature is service, information systems have been used as tools for optimizing the flow of information, increasing the quality of storage, retrieval, and dissemination of information, and the removal of time and place access constraints. One of the areas of impact of information systems is the quality of information. This is very important because information and information services are the ultimate product/service of libraries and their

linking with clients and users; on the other hand, it leads to users’ perception of the value of information and information services. Values are a powerful force that guides the operations, attitudes, and judgments of individuals in all aspects of everyday life (Keng et al., 2007); and the result of a personal comparison between overall benefits and costs paid by the customer (Ryu & Han, 2010). The satisfaction of users is also one of the strategic goals of cultural policy makers, and achievement to its highest level can help attract new members, in addition to increasing the chances of returning and reusing information services.

The results of the test showed that the information quality of the information system of the public libraries is relatively unfavorable from the viewpoint of users. The findings of this hypothesis are inconsistent with some of the results of Mazraeh’s study (2017) and Fate-mian & Farhadpoor (2018). The relatively unfavorable information quality from the viewpoint of users, on the other hand, indicates a lack of attention to the quality aspects of information in the information system of the public libraries, on the other hand, suggests that due to the considerable attention to use information systems, widespread in various organizations in recent years, public library managers need to be more aware of the mechanisms for providing, organizing, disseminating and accessing information. The study of the status of the perceived value of information also showed that it is at a relatively favorable level. In other words, the information system, by providing quality, relevant, up-to-date, accurate and accurate information, has made users perceive them valuable. In other words, the use of information by users is not accidental and based on luck, but it will be valuable to them when they are tailored to their needs and expectations and can meet

their expectations. However, in relation to satisfaction, the results showed that the satisfaction of users of Ahvaz public libraries is relatively unfavorable, some of which may be affected by the relatively unfavorable situation of information system's information quality. Of course, along with this factor, there may be other influential factors such as information literacy and user skills, communication behaviors of librarians, space, equipment, etc., which have not been addressed in this study.

The results of the research hypothesis test showed that the information quality of information system of public libraries has a significant effect on user satisfaction and about 30.4% of user satisfaction changes are explained by the information system's quality of information. The findings of this research are in line with the study conducted by Maebood Mojdehi et al. (2016) and Fatemian & Farhadpoor (2018). With regard to the findings, it can be concluded that as users appreciate the quality of the information received from the system appropriately and at a high level, their satisfaction with the information system will also increase. Also, the information quality of the information system of the public libraries has a significant effect on the perceived value of information by users and about 82.2% of the changes in the perceived value of information is explained by the information system's quality of information. The findings of this hypothesis are in line with the study conducted by Fatemian & Farhadpoor (2018). Accordingly, paying attention to the qualitative feature of the information system raises the perceived value of information by users. The results also showed that the perceived value of information has a significant effect on the satisfaction of users of public libraries and 64.4% of user satisfaction changes are explained by the perceived value of information. Comparing the results of this hypothesis with previous studies, it should be noted that according to the reviews, no studies have ever been found on the present hypothesis. Therefore, the results of this hypothesis can be a breakthrough for future studies. Based on the results, paying attention to the mechanisms for improving the perceived value of information provides users' satisfaction. In other words, if people appreciate the characteristics of the information they receive, this will lead to raising user satisfaction with the system.

Finally, the results of the main hypothesis test showed that the information quality of information systems of public libraries affects users' satisfaction due to the perceived value of information. The findings of this hypothesis are in line with the study by Fatemian and Farhadpoor (2018). With regard to the results, it can be said that paying attention to the qualitative characteristics of information can play a dual role. On the other hand, it leads to the users' perceived value of information and makes information important, valuable and meaningful to the users; on the other hand, it leads to the information system's users' satisfaction.

5. Conclusions

According to the findings from the hypotheses of this research, it is suggested:

- 1) Increasing the information system's quality by designing and policy-making. It is also suggested that information be collected in accordance with the information needs of users and take into account the qualitative characteristics of information.
- 2) Performing the necessary planning to receive feedback from users and, consequently, policy-making to ensure the quality of information system information.
- 3) Holding the training courses for users to increase their knowledge and awareness levels in the information and the information literacy field in order to increase their perceived value of information, which ultimately leads to user satisfaction, regarding the impact of the perceived value of information on the satisfaction of users of public libraries in Ahvaz.
- 4) Analyzing the system before the information system is launched; identifying the users' needs and expectations; implementing the system in a pilot way and completing the use of it after fixing the bugs; evaluating the information system quality periodically and using librarians and users with competence as a partner in designing the system.
- 5) Designing the information systems in a user-centered mode and adding applications tailored to the user's requirements (for example, system synchronization with

social media, presentation of special smartphone editions, and so on).

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