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RESEARCH ARTICLE **Open Access**

Staff Performance Competencies and Information Security: An Analysis of the Role of Library Software System Development

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Abstract
The purpose of this study is to determine Staff Performance Competencies and Information Security: An Analysis of the Role of Library Software System Development. The statistical population in the qualitative part was 18 specialists and professors in the field of information science and computer science, and in the quantitative part was the staff of the central libraries of the Islamic Azad Universities of Iran. The results showed that there is a significant relationship between functional competencies and information security management with the mediating role of library software system development. These results will be useful in identifying the effects of library software system development and staff performance competencies in information security management of libraries of the Islamic Azad Universities in Iran. This article is the only article that simultaneously examines the role of human factors and the role of non-human factors (software system development) in information security in academic libraries. Therefore, in the future, researchers may obtain more variables to obtain Combine a clearer picture of information security in libraries. This analysis helps researchers in the field of librarianship to understand the growth and development of software systems. This article is one of the first recent attempts to understand the research work in the field of library software system development by considering the role of staff performance competencies.
Keywords: *Performance Competency; Library Software; Information Security*

Introduction

Information security policies (ISPs) are used by organizations to communicate rules on the use of information systems (IS)(Tsohou & Holtkamp, 2018**).** In recent years, information security has become one of the key issues in the information technology industry (Taghva et al., 2012). Information security includes protecting information technology infrastructure and ensuring its availability (Honan, 2006; Vermeulen & Von Solms, 2002). Therefore, the life of library software is closely related to information security systems. The scope of library software, unlike traditional libraries, is very large. In these softwares, the user has access to various materials and resources, and the existing collections and facilities are more exposed to dangers than traditional libraries by (Hariri & Nazari, 2012). Unauthorized access to information and attacks on digital libraries are

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possible incidents, as exemplified by two security breaches at Indiana University in the summer of 2002 and May 2004, both of which took time and effort to restore. Information and upgrades spent to the new security system(Cheng, 2005). As a result, information security management system is important for any organization. Information security management is a tool for identifying, managing, and minimizing the threats that organizations face today by losing their information. These threats include: internal threats of the organization, external threats of the organization, accidental threats, threats due to intentional and unintentional errors (Mohammadnejad & Saboohi Laki, 2015).

Currently, the most important element in the security of library systems is the staff. Recent surveys reported that 63% of IT security interviews identified employees as a major concern for the organization, with a higher percentage than hackers (55%) or organized crime (38%)(Chu & Chau, 2014). Employee behavior that leads to security incidents and privacy breaches can be the result of negligence, error, or intentional malicious attacks(Da Veiga & Martins, 2015). For this reason, security in libraries and software library depends on how library staff behave. Success in playing this role and fulfilling this heavy responsibility is more than anything related to the capability and effectiveness of the employees. The effectiveness of employees also depends on their competence, skills, level of knowledge and insight and ability(Khorshidi & Ekrami, 2012).

Getha-Taylor et al (2016) Competencies considered to be fundamental characteristics that are causally related to superior performance in a job. They are related beyond traditional skills, knowledge and abilities, or motivations and characteristics, to the future and the emphasis on individual capacity for effective performance. According to Bharwani & Talib (2017) competency is conceived as a fuzzy concept and is a set of behaviors that correspond to superior performance in specific situations and can be developed(Bharwani & Talib, 2017). The output of the job-based approach is that organizations define and acquire competencies for their job groups. One of the most important job categories in any organization is employees. Competent employees achieve high efficiency by effectively facing work challenges, being creative and having unique skills(Abdullahi, 2009). According to the results of previous studies, qualified employees are the main issue in gaining a competitive advantage(Nemati Maryam et al., 2020).Anwari et al. (2016) state that competency-based performance refers to the expected job performance as well as the knowledge and understanding required to do so. In addition, competencies are important for the competitiv eness of organizations (Ehtesham et al., 2019). Through such competencies, organizations are able to increase efficiency, achieve their goals and strategies, improve productivity, quality and decision making, and ultimately improve performance(Morady Khalil et al., 2019).

Instead, the need for appropriate software in the field of data storage and retrieval has led national and international organizations in most parts of the world to carry out activities in this direction for many years. As a result, this research in Iran has also begun extensive efforts to meet Iranian needs in the development and design of software. of the country in relation to software development and design(Habibi et al., 2019).

One of these applications is library software. Library software is technology-oriented tools that are used to store and retrieve library information and resources and are written in one of the most common programming languages.

The production of library software affects the various activities of libraries and information centers and provides valuable

solutions to expedite the provision of information services (Tajeddini & Sadat Moosavi,
2010). These capabilities include: the capabili ty of library software in the cataloging section , the capability of library software in searchin g and retrieving information, the capability of library software in the section of lending and workflow, the capability of library software in the section of registration and membership,
etc (Ghazizadeh, 2008). But what is important here is the preservation of the information of these systems, this will not be possible except by using the right security tools and techniques and then the updated knowledge to deal with the threats that endanger this vital communication platform(Doroudi & Jamshidi, 2021).

Today, due to the unprecedented vastness and increasing speed of human knowledge and arts in the world and the emergence of new technologies, we should expect libraries as a place for accurate, fast and appropriate transfer of past and present scientific information and resources in achieving many desirable developments. Play a more effective social, scientific and cultural role. Success in this regard requires comprehensive research and review of findings and the creation of appropriate grounds for the implementation of appropriate standards in the maintenance of these valuable assets(Mousavi et al., 2015). In order to further improve the understanding of these mechanisms, the purpose of this study is to investigate the impact of employee performance competencies and information security. According to previous research, there is a strong link between employee performance competencies and information security*)*Tahmasebi Limooni & Tabibian, 2020).

In addition, the development of library software is an important principle in information security(Nazareth & Choi, 2015). Therefore, in this study, we created an intermediary model to investigate the mediating role of library software development in the relationship between functional competencies and information security management in Islamic Azad University libraries across in Iran. This article is one of the first recent attempts to understand the research work in the field of library software system development by considering the role of staff performance competencies. This study focuses on the following 4 items based on its purpose:

1. Is there a significant relationship between performance competencies and information security management*?*
2. Is there a significant relationship between library software development and information security?
3. Is there a significant relationship between functional competencies and library software development*?*
4. What is the mediating role of library software development in relation to functional competencies with information security management?

Definitions of Terms

Functional competencies: Competence is the characteristics and behaviors that lead to the effectiveness of the person in the work environment. Competence considered to be characteristics related to job success. It is essential with the work leaders of the organization (Dianati & Erfani, 2010). Information Security Management: is a set of management measures in order to a chieve the principles of information security management, including integrity, availability of information, plus its accuracy and accounta bility (Akhavan & Radfar, 2020).

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functional competencies and information security management in Islamic Azad University libraries across in Iran. This article is one of the first recent attempts to understand the research work in the field of library software system development by considering the role of staff performance competencies. This study focuses on the following 4 items based on its purpose:

5. Is there a significant relationship between performance competencies and information security management*?*
6. Is there a significant relationship between library software development and information security?
7. Is there a significant relationship between functional competencies and library software development*?*
8. What is the mediating role of library software development in relation to functional competencies with information security management?

Literature Review

Numerous studies have been conducted in Iran and abroad on functional competencies and information security, the most relevant of which are as follows*:*

Qualitative information security risk assessments are somewhat subjective and the high degree of subjectivity associated with the perception of risk means that management is often skeptical of risk analysis results, and is unwilling to make important decisions based on that. Besides, the process of information security risk assessment is quite complex and rife with uncertainty and without taken into account the uncertainty of information security risk assessment the results can be misleading (TamjidYamcholo & Toloie Eshlaghy, 2022).

The usability, system performance and reliability of the library system significantly affect the perceived satisfaction of users who are engaged in various tasks in the library. They recommended that these variables should be optimal to increase user satisfaction(Elias & Lubua, 2021). The application of information and communication technology in library services in Nigeria is probably insufficient due to various challenges. The field of utilization of information and communication technology, challenges have been observed in libraries and it is recommended to improve the capacity and level of acceptance of information and communication technology by libraries(Oyovwe-Tinuoye et al., 2021).

Competency management and development are vital tools to increase competition in organizations and the goal of the competency-based approach is to "determine the competencies needed by top people in key positions across the organization, efforts to close competency gaps through effective selection and training and ensuring that good performance is recognized and rewarded" (Hatami Ghoushchi et al., 2021).

The implementation of information security policy, infrastructure management, business and information technology balance, human resource management, development of organizational information architecture, all of which can affect the quality of information security management (Ahmad et al., 2019). The conceptual model of competencies of university library managers in 7 categories and the competencies of managers of university libraries in Ahvaz city have been evaluated as moderate upwards from the perspective of the staff of these libraries. Moving further towards digital and electronic libraries, academic libraries need administrators who, in addition to managerial and specialist knowledge, are aware of the latest technological advances and learn information literacy skills and other innovative and technological skills(Ghanadinezhad, 2019).

Results of Analysis on Relationship among Competency and Succession Planning in Telecommunication Infrastructure Company of Iran showed that variable of succession planning reached to a level higher than

satisfactory rate therefore all of the related elements were placed higher than satisfactory level except variable of commitment that was at good level. Similarly, the variable of competency was also placed at the level higher than the satisfactory rate in th is study.

Therefore, all of these variables reached to the level higher than the satisfactory rate (Hosseini et al., 2019).

By developing senior management support, organizational awareness of security risks and controls, then this process will lead to successful information security management and two theories presented in this study: 1. it identifies and confirms the key factors that affect the success of information security management at the organizational level from a strategic management perspective, and 2. provides practical guidelines for organizations to make information security management more effective (Tu et al., 2018). Investment in all areas of security is required for effective protection of information assets. The average information security management in the central libraries of public universities located in Tehran according to ISO / IEC 27002 was above average and is at a desirable level(Malekolkalami, 2014). Lo and Chen(2012) suggested a hybrid procedure considering interrelations among security (Lo & Chen, 2012).

Control to assess information security risk.

Research results in Iran and abroad showed that neglecting the functional competencies as a strategic source and knowledge capital causes the information security of organizations to be damaged and the survival of the organization is difficult. Because in today's changing age, where change is the most fundamental feature, information security is the main element of survival and growth of organizations. Many solutions for system security have been proposed so far, but the role of human factors and software development has not yet been properly explored. This research may be effective in policy-making and planning of library software systems and information security management in them.

Method

This research, in terms of nature of data is a combination of data (qualitative and quantitative) and in terms of purpose is developmental and applied. The participants of the qualitative research study consisted of 18 experts and professors of information science, epistemology and computer, who were unlikely to be purposefully selected and the end of sampling was determined after theoretical saturation.

Based on this technique, the selection of sample people continues until the interview with new people does not provide new information to the researcher and is almost repetitive. In selecting professors and experts, the researchers made every effort to ensure that participants in this section have sufficient research in the field and have sufficient experience in the field of library software and information security of these softwares.

The statistical population in a small part included all the staff of the central libraries of the Islamic Azad Universities in the academic years 2020-2021 years 2020-2021, which due to the small size of the population, all 240 members of the population were selected by census as a sample.

Data Collection

Data collection instrument

The data collection tool in the qualitative section was a semi-structured interview that was used to achieve the accuracy and validity of the study, the data source triangulation method was used. Triangulation refers to the fact that an article has been examined from different sources and in different ways. Accordingly, in this research, various sources such as professors of information science and computer science have been used to confirm

the content of the interviews and review the research literature. Also, to evaluate the reliability and reliability of the research, two research colleagues were used to review the interviews. The data collection tools in the quantitative section were two standard questionnaires of information security management and employee performance competency and a questionnaire extracted from the results of the qualitative section.

The standard information security management questionnaire is a 17-item tool used by Ashourizadeh (2012) and has 4 components: confidentiality (4 questions), integrity (5 questions), availability (3 questions) and accountability (5 questions). It measures. Subjects answer each item of this questionnaire on a 5-point Likert scale (from 1 for very low to 5 for very high). In Ashourizadeh's research, Cronbach's alpha coefficient of this questionnaire is mentioned as 0.89. In the present study, Cronbach's alpha coefficient of this questionnaire was 0.85, which indicates the reliability of the research tool.

The standard staff performance competency questionnaire is a 37-item tool designed and implemented by Tahmasebi and Tabibian (2018) and has 4 components of tec hnical competencies (11 questions), team and interpersonal competencies(9questions), man agerial and leadership competencies (10 quest ions)**,** and assesses the competencies of librari ans (7 questions)(Tahmasebi Limooni & Tabibian, 2020). Subjects answer each item of this questionnaire on a 5-point Likert scale (from 1 for very low to 5 for very high). In the research of Tahmasebi et al. (2015), Cronbach's alpha coefficient of this questionnaire is mentioned as 0.89. In the present study, Cronbach's alpha coefficient of this questionnaire was 0.81, which indicates the reliability of the research tool.

Library software system development scale from the results of interviews and from sources such as Haji Zein Al-Abedini, Pazouki, Davoodzadeh Salestani (2011)(Haji Zain Al-Abedini et al., 2012), Mohaghegh, Ali Beyk, Soltani (2017)(Mohaghegh et al., 2017), Tahmasebi Limoni, Emami and Ghiasi (2017)(Tahmasebi Limooni et al., 2017) and Parinala (2003)(Parirnala, 2003), Graves, Karen, Martin Elain (1998)(Graves KJ & Martin ER, 1998), Bahardavj and Shakla (2008), Aebi and Largo(Aebi & Largo, 1996) (1996) and Ani, Esin and (2005)(Ani et al., 2005)

Finally, 60 items were obtained. This scale measures 5 components of data storage and retrieval (14 questions), user (17 questions), security (4 questions), standards (6 questions), accessibility (19 questions). Subjects answer each item of this questionnaire on a 5-point Likert scale (from 1 for very low to 5 for very high).

To evaluate the face validity of the library software system development questionnaire, by referring to the opinions of experts and professors, the validity of the measurement tool has been ensured in measuring the research variables. In addition to checking face validity, the Content Validity Ratio was used to ensure that tool items were best designed to measure content. To determine the validity, the list was presented with 18 experts and professors of information science, science and computer. For each of the 60 items on the list, they were asked to answer 3 options: "useful", "useful but not necessary", "not useful". Responses were calculated based on the Content Validity Ratio formula as follows:

$$CVR = \frac{n_E - \frac{N}{2}}{\frac{N}{2}}$$VR=n_E-N/2/N/2

Where $n_E$the number of specialists selected as the useful option and N is the total number of specialists? Thus, the score of all 60 items was greater than the Lawshe table number for 18 specialists (0.49). Therefore, it was indicated that the existence of relevant items with an acceptable level of statistical significance ($p < 0.05$) in this tool is necessary and important and the validity of the content of

the list was confirmed. Also, its reliability by using Cronbach's alpha coefficient for data storage and retrieval components, usability, security, standards, accessibility and the whole questionnaire were 0.80, 0.80 and 0.79, 0.82, 0.78 and 83, respectively 0.5 was calculated. The Cronbach's alpha value of all variables is greater than 70%, which confirms the reliability of the items and the internal consistency of the questions.

Data Analysis

Data analysis is in the qualitative part with an interpretive analysis approach and content analysis method. Contextual analysis is a procedure that converts fragmented information into rich and detailed data (Brown, 2006). Among the four methods of theme analysis, namely (a: theme format, b) theme matrix, c, theme network. D: Comparative analysis) in this research, the method of network analysis of themes was used. Thematic network analysis can be broadly divided into three main sections: first, text analysis, second, text exploration, and third, integration of discoveries. Therefore, first, some of the participants' speeches were extracted and converted into initial codes by the researcher. Then, by categorizing the primary codes, the basic themes were extracted and then, by abstracting the categories, the organizing themes and the all-encompassing theme were formed. Table 1 lists examples of verbal propositions identified in content analysis.

Table 1.
Sample of identified verbal propositions regarding library software system Development variables

Interviewer code	Sample sentence	Conceptualization	Components
A2	In order for a library software to be comprehensive and complete, it must be able to store information and have enough space to store information.	Increase data storage space	Information storage and retrieval
A18	In my opinion, library software should consider all aspects of access to resources and the user can easily access the resource he wants	Provide reliable and sustainable access to resources	Accessibility
A4	Metadata standards must be observed and applied in library software	Support metadata standards	Standards

In the quantitative part, descriptive data analysis (frequency, percentage, mean, standard deviation) was performed using SPSS 26 software and in order to answer the research questions, the structural equation model was used Lisrel 8.8 software.

Findings

Characterization of the respondents

The demographic characteristics of the participants in this study are shown in table 2.

Table 2.
Frequency distribution of respondents' demographic characteristics

Variable	Quantity section		Quality section	
	F	%	F	%
Gender				
Female	132	55	5	28
Male	108	45	13	72
Age Group				
Between 21-30 Years	14	5.8	0	0

Variable	Quantity section		Quality section	
31-40 Years	88	36.7	4	22.2
41-50 Years	92	38.3	12	66.7
More than 50 Years	46	19.2	2	11.1
Work Experience				
Less than 5 years	28	11.7	0	0
6 to 10 years	68	28.3	7	39
11 to 15 Years	77	32.1		45
16 to 20 Years	55	22.9	3	16
More than 20 Years	12	5	0	0

Out of 240 participants in the quantitative section, 45% were male and the other 55% were female. The majority of employees were in the age group of 41 to 50 years (38.3%. The majority of employees had a master's degree (45.4%). Also, out of 18 participants in the quality department, 28% were men and 72% were women. 22% are in the age group of 31 to 40 years, 66.7% are in the age group of 41 to 50 years and 11.1% are in the age group of more than 50 years, and 39% of the participants have work experience between 6 to 10 years, 45% between 11 to 15 years and 16% between 16 to 20 years

Descriptive indicators and results of one-sample t-test of research variables are shown in table 3.

Table 3
Descriptive indicators and results of t-test sample of research variables

Variables	Mean	SD	Minimum quantity	Maximum quantity	Statistical value of T	The significance level
Technical competencies	3.80	0.73	1	5	16.81	0.000
Team and interpersonal competencies	3.73	0.68	1	5	16.73	0.000
Managerial and leadership skills	3.59	0.69	1	5	13.26	0.000
Competencies of librarians	3.61	0.68	1	5	13.85	0.000
Performance Competencies	3.69	0.63	1	5	16.91	0.000
Confidentiality	3.69	0.81	1	5	13.13	0.000
Integrity	3.55	0.75	1	5	11.73	0.000
Availability	3.56	0.81	1	5	10.70	0.000
Accountability	3.35	0.83	1	5	6.57	0.000
Information security management	3.52	0.58	1	5	13.92	0.000
Information storage and retrieval	3.80	0.81	1	5	15.20	0.000
User	3.77	0.77	1	5	15.48	0.000
Security	3.69	0.98	1	5	11.92	0.000
Standards	3.53	0.84	1	5	9.78	0.000
Accessibility	3.77	0.83	1	5	14.39	0.000
Development of library software system	3.75	0.76	1	5	15.229	0.000

In Table 3- descriptive indicators of performance competency variable, information security management variable, library software system development and each of its dimensions are calculated as the average in performance competency and information security management variables, library software system development and Each of their components is above average (3) which according to the significance level of the sample t-test which is less than the default value of 0.05, it can be concluded with 95% confidence that, the status of information security management and functional competence, The development of library software system and its components is at a desirable level in terms of library staff of Islamic Azad universities in Iran. Before path analysis, the normality of the data was checked using Kolmogorov-Smirnov test and the correlation between the variables was evaluated using Pearson correlation coefficient (Table 4).

Table 4

Results of Kolmogorov-Smirnov test for research variables

Statistical indicators Study Variables	Z Kolmogorov-Smirnov Statistics	Significance level
Information security management	1.074	0.204
Library Software System Development	1.032	0.196
Performance Competencies	1.19	0.13

It is observed that for each of the studied variables, the significance level of the test is higher than 0.05, which confirms the assumption of normal data.

Table 5

Pearson correlation coefficient matrix between research variables

Variable	1	2	3
Information security management	1		
Library Software System Development	**.622	1	
Performance Competencies	0.381 **	0.49 **	1

*** *At the level of 0.01 is significant. * At the level of 0.05 is significant.**

The results of Pearson correlation coefficient indicate that, specifically, there is a positive and significant correlation between functional competencies with information security management (0.381), between functional competencies with the development of library software system (0.549). Gives a positive role of functional competencies in information security management and library software system development. Also, the relationship between library software system development and information security management is equal to (0.622) which shows the positive and significant role of development. Library software system is in information security management.

In order to better understand the causal relationships and how functional competencies affect information security management and the mediating role of library software system development, the path analysis model was used in the form of Figures (1) and (2).

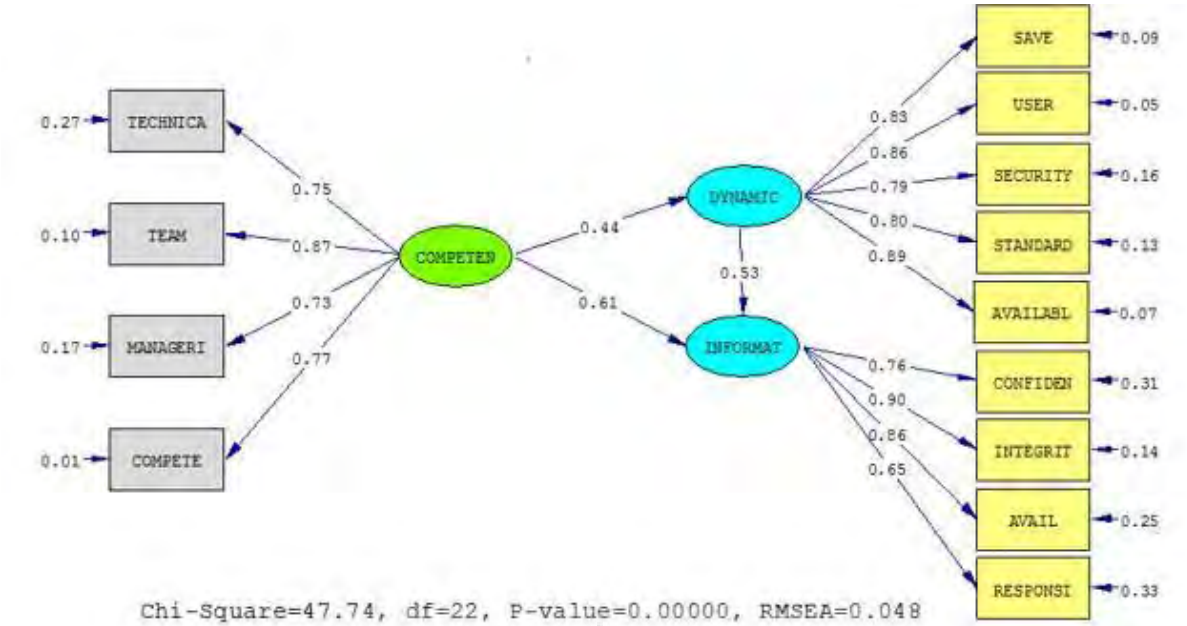


Figure 1. *The main model in standard model*

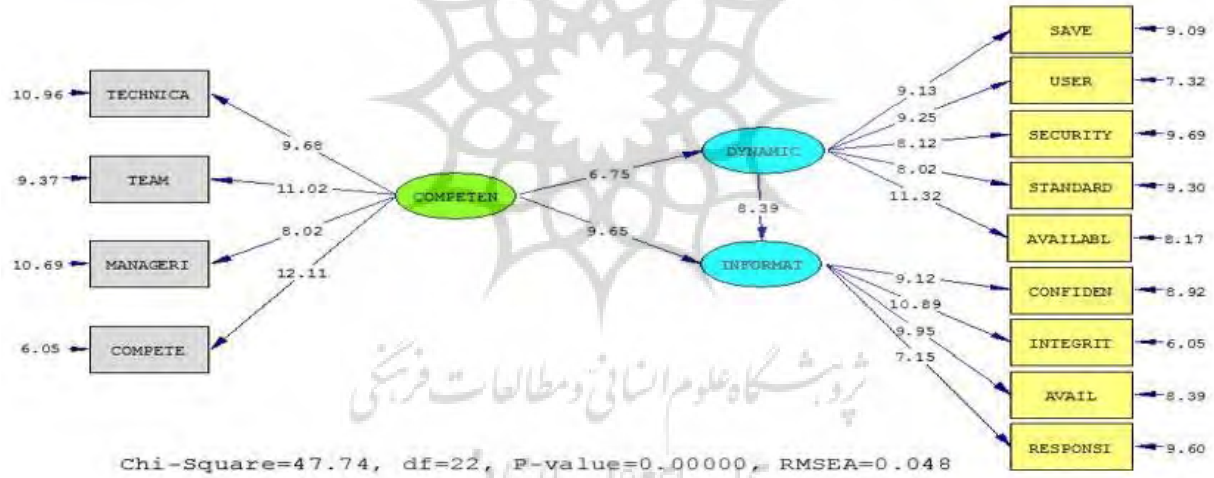


Figure 2. *The main model in significant number mode*

The results in Figure (1) show that the effect of employees' functional competencies on information security is equal to 0.61 and on the development of library software is equal to 0.44 and the effect of library software development on information security is equal to 0.53.

Figure 2 shows that the t-value for all paths is higher than the standard value of total value 1.96 and there is evidence of a significant relationship between the research variables.

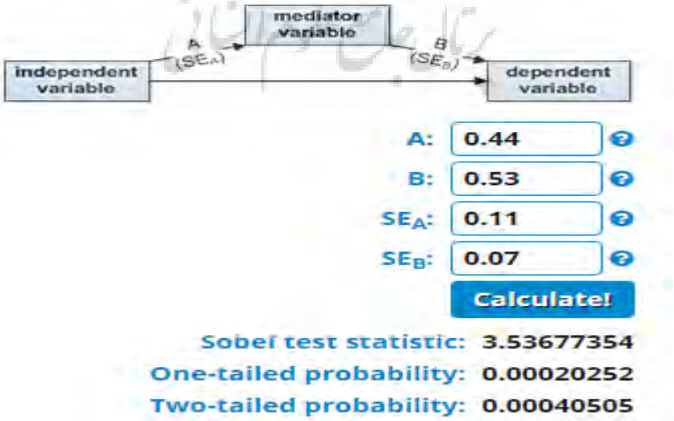
Table 6
Calculate indicators of research model Fit

Indicator	Indicator			The value calculated in the present study
	Initials/ Acronyms	Full Word	Acceptable domain	
Comparative (relative)	NFI	The (Non) Normed Fit Index	0.80>	0.93
	CFI	The Comparative Fit Index	0.90 and more	0.92
	RFI	the Relative Fit Index	0.90 and more	0.91
	χ^2/df	The relative chi-square	Less than 3	2.17
	RMSEA	The Root Mean Square Error of Approximation	0-0.08	0.048
Absolute	GFI	The Goodness of Fit	Close to 1	0.03
	AGFI	The (Adjusted) Goodness of Fit	Close to 1	0.91
	$\chi 2$	Chi-Square	Depending on the sample size	47.74

Table 6 shows the fitness indicators of the model, which according to the results of the ratio of chi-square to degree of freedom equal to 2.17 (less than 3 criteria), The Goodness of Fit (GFI) equal to 0.93, The (Adjusted) Goodness of Fit (AGFI) is 0.91, the Relative Fit Index (RFI) is 0.91, The Comparative Fit Index (CFI) is 0.92 and The Root Mean Square Error of Approximation (RMSEA) is 0.048. Shows that the final model has a good fit without the need for modification. Also, all the relationships between the variables in the model are significant at the level of P <0.05.

Table 7
Investigating the mediating role of library software system development in relation to functional competencies with information security management

	Indirect impact	Sobel Test	Results
functional competencies → Development of library software system → Information security management	Impact coefficient (β)	3.537	Hypothesis confirmation
	0.53 × 0.44		
	Meaningful number (t-value)		
	8.39 6.75		



According to Table (7), the coefficient of effect of performance competencies on system dynamics is 0.44. Also, the coefficient of effect of system dynamics on information security management is equal to 0.53. The value of test statistics has also been more than 1.96. Which indicates the approval of the routes? Instead, in order to investigate the mediating role of system dynamics, the Sobel test has been used, the value of Sobel statistics is equal to 3.537 and the significance level of the tests is less than 0.05. Therefore, the null hypothesis of the test is rejected and it can be concluded that functional competencies with information security management have a positive and significant relationship with the mediating role of the development of library software systems in the libraries of Islamic Azad universities.

Conclusion and Suggestion

According to the research results, there is a significant relationship between functional competencies and information security management with the mediating role of library software system development. In the analysis of the above findings, it can be said that if the technical competencies, team and interpersonal competencies, management and leadership and librarians' competencies are well managed and assigned well, it can lead to information security management. Issues of protection and maintenance of information resources, having problem-solving skills in the face of crises, the ability to adapt to problems created in libraries, the ability to manage change and have emotional intelligence as well as having strong communication and good communication with clients and equipped with personal skills and the public will certainly be able to create, organize and develop information security management with existing potentials.

On the other hand, functional competencies play a central role in the development of the library software system. When librarians' skills are well developed, they can make good use of their existing capacity, develop and improve the areas of information storage and retrieval, proper use, receiving appropriate user feedback, making system security decisions and measures, supporting standards, making resources available to users and meeting stakeholder needs, and supporting protocols in information exchange.

Library software system development will also be a tool for information security management. Basically, libraries are the sources of preserving the cultural, scientific and historical capital of a nation, which evolves into an organized collection for scholars. The need to address security issues in libraries and information centers is a great help to their audience, protection and security of information in libraries and information centers such as digital information security or library software, information security of users and the user community, security of various sections of academic libraries and security The tools and equipment in it is an issue that has received less attention. Libraries and information centers have a wide range of information such as educational, research, professional and digital information that is organized, cataloged, supported and maintained at a high cost. If this information is compromised due to lack of security in libraries and information centers, it will have many educational, research, etc. consequences, as well as making it difficult for the user community (faculty, students, and researchers) to access libraries.

When library software designers, capacity in the areas of data storage and retrieval, proper use, receiving appropriate feedback from users, making system security decisions and measures, supporting standards, making resources available to users and meeting stakeholder needs, and supporting protocols in exchange They develop and improve information, in fact, increase the capabilities of the library software system. In this

implementation, secure measures in the field of data entry and retrieval, control of access levels to resources and automatic backup of measures that develop the library software system, the more dynamic the system and the better it is used and Make good use of existing capabilities, can directly affect information security management, because with each development of the system, external and internal threats to the system are identified and more security protocols are considered for the system, the existence of backups And digital security during development is one of the cases of information security management, which indicates the improvement of information security management.

According to the results of the present study, it can be suggested that library managers, by holding courses to teach general skills such as (information literacy, information evaluation and identification, information extraction, familiarity with information retrieval skills) and special technical skills such as (publishing, technology), Training skills) to take action to enhance the functional competence of librarians. It is also suggested that security measures be taken in terms of data entry and retrieval, the possibility of backing up information in the design of library software.

Library software designers are advised to advance library software systems before taking any action to guarantee the security of the software and hardware used, using passive defense techniques and with the participation of security teams. Modeling the factors affecting information security at Islamic Azad University libraries in Iran, analyzing barriers to implementing librarians 'functional competencies at Islamic Azad University libraries across the country, examining the impact of librarians' functional competencies on information security management It is suggested for other researchers to facilitate other behavioral variables such as innovation, knowledge management, technology capabilities. One of the limitations of the present study is the limited population and the study sample to the staff of the central libraries of free universities across the country, which limits the generalization of the results to other universities to some extent.

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