# THE EVALUATION OF THE LEVEL OF ELECTRONIC READINESS IN THE EXPERTS' POINT OF VIEW (A CASE OF FINANCIAL INSTITUTION STUDY)

HOSSEIN KARDANMOGHADDAM<sup>1,\*</sup>, AMIR RAJAEI<sup>2</sup>, FAEZEH GIDESKI<sup>3</sup>

<sup>1,3</sup>Department of Computer Engineering, Birjand University of Technology, Birjand, Iran <sup>2</sup>Department of Computer Engineering, velayat University, Iranshahr, Iran \*Corresponding Author: h.kardanmoghaddam@birjandut.ac.ir

#### **Abstract**

Today's communities and organizations need to analyse, evaluate the cuttingedge technologies in IT to better deal with information and apply such IT technologies and plan the future programs to approach their future desirable situation. Electronic Readiness and its measurement tools provide the opportunity for micro and macro level policymakers to identify the strengths and weaknesses of their organizations and communities and provides a model for their electronic Readiness. The main purpose of this study is to evaluate the electronic Readiness of Noor Financial and Credit Institution in South Khorasan Province in Iran from the perspective of the institute staff. The design of the study is descriptive however its purpose is applied. The participants of the study consist of people who have sufficient and necessary information in the field of financial and banking activities, e-commerce issues and electronic readiness. Individuals working in the IT departments of the headquarter and branches of the institute, as well as heads, deputies and staff of the branches in cities of Khorasan province are considered as participants of the study. The population consists of 59 individuals out of which 50 individuals were selected using non-probabilistic convenient sampling. Out of 50 distributed questionnaires which consist of 30 items, 42 participants responded appropriately and were used for data analysis. SPSS software was used for analysis. The results of the analysis showed that from the perspective of the studied staff, the level of electronic readiness of Noor Financial and Credit Institution of South Khorasan (Iran) in general and the components of IT strategy and policy readiness, IT substructure readiness, managerial readiness, legal-lawful readiness, human resources (staff) and cultural readiness and the processes readiness are at a high level (more than the average score of 3). The results also showed that the situation of Noor Financial and Credit Institution in South Khorasan in the areas of management, information technology substructure and processes has been better than other areas.

Keywords: Electronic Banking, Electronic readiness, IT.

#### 1. Introduction

As one of the human's new achievements, information and communication technology not only has deeply suffered, but also is quickly affecting the pattern of life, research, education, management, transportation, security, and commerce. The usage of the prefix e also expresses this subject lots of dimensions of our life [1]. Researchers believe that we currently live in the information era, an era in which knowledge and information are considered as an inevitable necessity.

The reason for the emergence of this era is the new technologies that are known as information and communication technology (ICT). By the emergence of these technologies and development of their application, communities and organizations have come to plan to make structural changes and use ICT to increase the efficiency and citizens' welfare by figuring a clear outlook of the future's goals and current situations' analysis.

In order to apply ICT effectively, countries of the world must be desirably prepared in IT's substructure field and provide the availability of information technology for the majority of the country's population, moreover, they should be able to provide an appropriate framework of rules and regulations for applying these technologies.

In order to achieve the goals of extension of available capacities in the field of ICT, these capacities should be measured by the countries or organizations' level of readiness, or in other words, electronic readiness. Electronic readiness means the amount and size of each community or organization's participation in network space [2].

By evaluating organizations' level of electronic readiness, communities can examine their current situation from different dimensions of ICT development and raise their level of desirability by planning on related indexes and criteria. Electronic readiness has dimensions and components, such as telecommunication substructure, human resources, legal and policy frameworks. Most of the managers do not have the ability and the capabilities of information and communication technology and tell that their organization's savior, therefore the most important challenge facing them is to control and harness the power of information and communication technology under the framework of the organization's goals.

Without analysing the potential opportunities and threats arising from the appliance of ICT and assessment of internal strengths and weaknesses, the appliance of ICT not only will not solve the problem but also will make it more acute. Electronic readiness, as an environmental analysis tool, identifies the environment's opportunities and threats and presents a model of the level of electronic readiness by expressing communities and organizations' strengths and weaknesses.

In general, electronic readiness assessment represents a primary knowledge of the environment and current substructures and provides objective and tangible criteria and data in order to assess and evaluate the information and communication technology. Developments of information and communication technology and its expansion to monetary and financial markets as well as facilitate the affairs of the bank's costumers, have also transformed the traditional banking methods. Meanwhile, banks and financial institutes by moving forward to electronic banking and offering new financial services, play a significant role in increasing the amount of electronic commerce. Due to the widespread appliance of ICT in Iran's organizations and banks, the main question of the research is posed as: What is the level of electronic readiness of Noor financial and credit institution in South Khorasan Province (Iran) from this organization's staff's point of view?

Given the security sensitivities of banks and financial and credit institutions, these organizations have been slow to adopt new technologies in the field of IT because of concerns about reliability, monitoring, and security threats. This has caused these organizations not to benefit from many of the features of modern IT systems or not to implement them with agility. Checking the level of electronic readiness of users before implementing a system leads to discerning shortcomings and weaknesses of any organization. Before spending money and implementing new systems, we should properly review and organize the training and infrastructure required by users and remove the barriers and select the appropriate model of our desired organization. Success in e-commerce can only be achieved if the organization is laid on the solid foundation of preparation.

In this study, we examine the electronic readiness in a financial and credit institution of Noor in South Khorasan province in eastern Iran, which has a large number of branches and many financial and credit exchanges with banks and other financial and credit institutions in Iran and abroad. South Khorasan province in Iran is one of the important border provinces for the transfer of money and goods. Noor Financial and Credit Institution is one of the largest and most famous banks in Iran, which has a lot of currency and Rial exchanges with other countries, especially Afghanistan.

Many traders and merchants in this region use bank exchange systems and the need for cooperation between the two countries (Iran-Afghanistan) give rise to necessary comprehensive and coordinated electronic readiness. Also, no comprehensive research has been conducted in the region on e-readiness assessment that deals with both countries. And due to the existence of numerous communication channels in this region and high exchanges of goods and services, as well as high banking communications and high currency exchanges in this region, it is possible with similar studies in the neighboring provinces in Afghanistan to evaluate the electronic preparation in expanding the electronic channels between these two countries. Through a comprehensive analysis of organizations and finding out their weaknesses and strengths, we can reach an electronic readiness paradigm.

Noor Credit Institution, as a financial and credit institution with the approach of helping to develop the economy and supporting national production and employment, provides banking services to all segments of Iranian society. This institution has received its license from the Central Bank of the Islamic Republic of Iran (July 1, 2015). By joining the Shetab network and Real Time Gross Settlement system(RTGS) and Automated Clearing House (ACH), as well as connecting to the electronic service portals connected to the Shetab network, including mobile banking, telephone banking and Internet banking, this institution has provided the possibility of using electronic banking for its customers.

This institute has expanded its services by adding POS (points of sales) store terminals to the electronic banking services and also obtaining the final license to launch the SEPAM (System for Electronic Payment messaging) System for issuing Rial guarantees and validity of internal documents and joining the Chakwak

system. All banking activities as well as the process of transferring assets and liabilities of this institution are fully supervised [3].

This research can be a preliminary study to jointly examine the level of electronic preparation in Iran, Afghanistan, Pakistan and Turkmenistan. By analysing the level of electronic readiness, organizations will feel confident to plan for the development of information and communication technology. This research is important both from a practical and theoretical point of view, and in terms of purpose, it is applied and in terms of design, it is descriptive-survey and in terms of data collection, it is considered a field study. It can examine the basics of electronic readiness that are effective in political and social decisions. The researcher has used a different model to conduct the research study. In this model, researches [4, 5] that have examined electronic readiness have been used.

The research background done in the field of electronic preparation is reviewed in the second section of the study and in the third part, the research method has been stated. In the fourth section, the findings are mentioned and in the fifth section, the inferential findings are discussed. In the last part, the conclusion and comparison of this research with similar works and suggestions in order to promote electronic readiness, and the limitations of this research are discussed.

# 2. Research's Background

Technology readiness shows personal views and willingness to use IT products and services in people's daily life, and technological readiness can help people achieve their professional goals [6]. Technology readiness increases perceived usefulness and perceived facility in usage [7]. Also, it has been shown in another study that the dimensions of technology readiness have a significant effect on technology acceptance [8].

Brueckner [9], by stating that information technology can increase the quality of citizens' lives of a city or a country, proceeded to evaluate electronic readiness Michigan's municipality. Finally, he presented a website based on this called WAES for the municipality.

Flak et al. [10] designed a model called MEGAP-3 and used it to proceed electronic evaluation of the municipalities of Norway. Results have shown that the authorities' view of electronic government is simplistic, and Bureaucratic government is more common. The level of electronic readiness in two financial and commercial institutions in Iran has been studied and compared [11]. The model of bridge institution has been used in this research. According to the results of this study, it has been shown that both financial and commercial institutions' level of electronic readiness is not at an appropriate level and is less than the average.

The evaluation of electronic readiness of Baharestan's new city municipality in order to achieve electronic municipality [12] have evaluated Baharestan's new city in Iran by using Dr. Hamid Noori's model. Overall, they evaluated the electronic readiness of Baharestan's municipalities as 38% and concluded that this municipality must increase its electronic readiness in three dimensions of systems and technical substructure, electronic services, and organizational readiness [12].

Musa [13] evaluated electronic readiness for municipalities in Iraq. He proposed a measurement tool of electronic readiness in municipalities and implemented it in two provinces of Iraq.

Tavana et al. [14] presented a comprehensive model to evaluate the electronic readiness of USA's municipalities by presenting a hybrid phase model and using TOPSIS and ANP and assessed the states' municipalities by their model. In a study called "The evaluation of electronic learning in Thailand in comparison with USA's university," Seakow and Samson [15] examined the success and influential factors in electronic learning of USA's universities and compares the results with Thailand's high education. These results include the most important, influential factors such as supports for online resources and programs, well-introduced programs, careful selection of the initial proposed programs, and education of trainers to help and develop the effective educational methods.

Olatokun and Opesade [16] examined Ibadan University (IU) in taking advantage of numerous opportunities and using and accepting of information and communication technology about performing the university's duties. In this study, five components: substructures usability, access to substructures, the capability of human power, the policy of organizational information and communication technology, and legal framework have been examined, and the university gained 2.57 points.

Orace et al. [17] conducted a study entitled Electronic Readiness of university libraries in Isfahan. Findings of this study showed that the level of access and preparation of IT technology infrastructure, information preparation, services and activities requiring IT technologies, information security, management preparation and organizational culture have been above average. While, the preparation of organizational characteristics, communication with the external environment, the level of policies, strategies and legal regulations related to IT technologies, financial preparation, human resources, the application of IT technologies have not been above the average.

Chang and Chieng [18] consider electronic banking services from three aspects and believe that bank customers are able to receive e-banking services at three levels (information level, communication level and transaction level). Khaemba et al. [19] in a study entitled "Factors affecting citizen readiness for E-government systems in Kenya" point out that indicators related to countries' access to communication and information technology (ICT)are very poor measures for citizens' electronic readiness. Findings of this study show that not paying attention to users acts as a deterrent to electronic readiness. This means that in order to succeed in any e-government initiative, citizens must make good use of the system.

This research has mentioned the factors influencing the electronic preparation of citizens in this order: Weak infrastructure and budget constraints, executive programs, skills and attitudes, citizen participation, digital discrimination (differences in access to technological facilities between citizens), culture, privacy and security concerns, etc. This research points out that the influential factors in electronic preparation for different social and economic groups of society should be considered. Tan et al. [20] presented a model that demonstrates how information technology can be used to achieve operational agility in a company. The proposed model demonstrates IT operational agility, new resource management capabilities,

negotiation process and management measures for the application of IT in the supply chain. The findings of this study enable managers to use IT capabilities in a better way and take steps to achieve operational agility.

In a study conducted by Tabarsa et al. [21], they examined different models and identified different indicators to assess the electronic readiness of government organizations to establish a human resource management system. In this study, different indicators required to assess the electronic readiness of the organization to establish electronic human resource management systems were identified and extracted.

A review of research sources indicates that there is a gap in the literature as there was no extensive and systematic research with a clear picture and concrete data of the existing reality about the electronic preparation in a financial and credit institution in eastern Iran based on two studies [4, 5]. Due to security sensitivities in banks and financial and credit institutions, they have implemented electronic systems with delay.

In previous researches in the area of electronic readiness, less attention has been paid to the issue of electronic readiness in banks and financial and credit institutions, thus in this study, an attempt has been made to examine electronic readiness in a financial and credit institution. Also, a set of effective factors are presented in the form of a conceptual model. The results of this study will enable policymakers in the financial and monetary sectors to take the necessary steps to set policies for e-banking. Also, this study provides a model for evaluating the performance of private companies in terms of electronic readiness. Due to the importance of electronic banking systems and having the necessary electronic readiness in this field, especially in the east of Iran, we decided to conduct this research.

## 3. Research Methodology

In this study, in order to survey the views of the staff of Noor Financial and Credit Institution in South Khorasan Province (Iran), a questionnaire used in previous research studies [4, 5] has been adopted. The response scale used was a 5-point Likert scale from strongly disagree to strongly agree (minimum score is one and maximum point is 5). This questionnaire consists of 30 items whose operational variables include information technology strategy and policy readiness (5 phrases), informational technology substructure readiness (7 phrases), managerial readiness (5 phrases), legal-lawful readiness (4 phrases), human resources (staff) and cultural readiness (5 phrases), processes readiness (4 phrases). In this study, in order to determine the reliability of the questionnaire, Cronbach alpha method has been used. The reliability of the questions asked to measure each variable using Cronbach's alpha coefficient has been given in Table 1.

The Cronbach's alpha coefficient obtained for the whole questions, also each of the variables show that questioner which is used has the stability, in other words, it has the necessary reliability. For all of the variables, the Cronbach's alpha coefficient was 0.897. Data were analysed by using statistical software SPSS15. In the descriptive section, descriptive statistics were used, and in the analytical section, one-sample statistical t-test, independent t, and one-way analysis of variance at the significant level of 0.05 were used for examining the research hypotheses.

Table 1. The table of the stability about questioner's questions.

Variable	Cronbach's Alpha Coefficients
Information Technology Strategy and Policy Readiness	0.704
Informational Technology Substructure Readiness	0.701
Managerial Readiness	0.822
legal-lawful Readiness	0.704
Human Resources (staff) and Cultural Readiness	0.861
Processes Readiness	0.702
Total Alpha	0.897

This study has a "quantitative" nature which has an "applied" purpose and a "descriptive" method. The sample of the study consists of the personnel of Noor Financial and Credit Institution who have sufficient information in the field of financial and banking activities in e-commerce and in electronic readiness. They work in the administrative and IT departments, which deal in some way with the Internet and office automation and information technology (Service personnel who did not deal with these cases were excluded from the participants of the study).

Also, individuals working in the IT departments of the headquarter and branches of the institute, as well as heads, deputies and staff of the branches in cities of Khorasan province are considered as participants of the study. The population consists of 59 individuals out of which 50 individuals were selected using non-probabilistic convenient sampling. Out of 50 distributed questionnaires which consist of 30 items, 42 participants responded appropriately and were used for data analysis.

## 4. Descriptive Findings

The frequency distribution of the studied people in this study, according to gender, was as follows: 25 people (59.9%) were male, and 17 people (40.5%) were female, and among them, 31 people (73.8%) were between 25 and 40 years old, and 11 people (26.2%) were between 41 and 50 years old. 25 people (59.5%) of staff studied had 12 years of service or less, and 17 people (40.5%) had more than 12 years of service.

Furthermore, the frequency distribution of the studied staff, according to education level, was as follows: 5 people of the studied staff (11.9%) had a diploma, and 30 people (71.4%) had a bachelor's degree, and 7 people (16.7%) had a master's degree, of which 15 people of studied staff (35.7%) had humanities field of study, and 11 people (26.2%) had basic sciences field of study, and 16 people (38.1%) had technical and engineering field of study.

The frequency distribution of the studied staff, according to organizational position, was as follows: 16 people (38.1%) of the employees working in the supervision of the bank, 14 people (33.3%) of the employees of the second-degree branch, 12 people (28.6%) of the employees of the third-degree branch had been examined.

## 5. Inferential Findings

The inferential findings of the level of electronic readiness's examination of Noor financial and credit institution in South Khorasan Province in Iran from the institution's staff's point of view with an average theoretical score of (3) (Table 2), gender (Table 3), age (Table 4), years of service (Table 5), level of education (Table 6), field of study (Table 7), organizational position (Table 8), is described from Table 2 to Table 8.

Table 2. The comparison of the average score of the studied staff's point of view regarding the level of electronic readiness of Noor credit institution in South Khorasan Province with the average theoretical score (3).

	Mean	Standard deviation	Mean difference	t	df	p
Information Technology Strategy and Policy Readiness	3.77	0.8	0.77	6.25	41	<0.001
Informational Technology Substructure Readiness	3.86	0.77	0.86	7.25	41	<0.001
Managerial Readiness	3.91	0.74	0.91	997	41	< 0.001
legal-lawful Readiness	3.60	0.65	0.60	5.95	41	< 0.001
Human Resources (staff) and Cultural Readiness	3.49	0.75	0.49	4.23	41	<0.001
Processes Readiness	3.83	0.67	0.83	8.05	41	< 0.001
Electronic Readiness in Total	3.75	0.62	0.75	7.83	41	<0.001

As the result of one-sample t-test shows, the average score of the studied staff's point of view is meaningfully more than the average theoretical score (3) regarding the level of electronic readiness in general and its components in Noor financial and credit institution in South Khorasan Province (p<0.001). In other words, the level of electronic readiness of Noor financial and credit institution in South Khorasan Province is at a high level from the staff's point of view.

As the result of the independent t-test shows, the average point of view score doesn't have a meaningful difference in the studied male and female staff regarding the level of electronic readiness of South Khorasan's Noor financial and credit institution (p>0.05).

Table 3. The comparison of the average point of view score regarding the level of electronic readiness of South Khorasan's Noor credit institution in the studied staff according to gender.

	Gender	Mean	Standard deviation	t	df	p
Information	F	3.62	0.82			
Technology						
Strategy and	M	3.87	0.78	0.99	40	0.33
<b>Policy Readiness</b>						
Informational	F	3.73	0.80			
Technology						
Substructure	M	3.95	0.75	0.92	40	0.37
Readiness						
Managerial	F	3.78	0.91	0.96	40	0.34
Readiness	M	4.00	0.60	0.90	40	0.34
legal-lawful	F	3.56	0.71	0.20	40	0.77
Readiness	M	3.62	0.62	0.30	40	0.77
Human	F	3.47	0.88			
Resources (staff)				•		
and Cultural	M	3.50	0.67	0.14	40	0.89
Readiness						
Processes	F	3.60	0.74	1.00	40	0.07
Readiness	M	3.99	0.58	1.89	40	0.07
Electronic	F	3.64	0.72			
Readiness in Total	M	3.83	0.55	0.99	40	0.32

Table 4. The comparison of the average point of view score regarding the level of electronic readiness of South Khorasan's Noor financial and credit institution in the studied staff according to age.

	Age	Mean	Standard Deviation	t	df	р
Information	25-40	3.71	0.83			
Technology				-		
Strategy and	41-50	3.95	0.72	0.84	40	0.41
Policy Readiness						
Informational	25-40	3.82	0.78	-		
Technology Substructure Readiness	41-50	3.99	0.77	0.61	40	0.55
Managerial	25-40	3.88	0.73	0.37	40	0.71
Readiness	41-50	3.98	0.78	-	40	0.71
legal-lawful	25-40	3.53	0.65	1.01	40	0.20
Readiness	41-50	3.77	0.64	1.01	40	0.30
Human	25-40	3.49	0.77			
Resources (staff)				-		
and Cultural Readiness	41-50	3.49	0.74	0.002	40	0.99
Processes	25-40	3.79	0.70	0.69	40	0.49
Readiness	41-50	3.95	0.61	0.09	40	0.49
Electronic	25-40	3.72	0.63			
Readiness in Total	41-50	3.86	0.61	0.67	40	0.50

**Journal of Engineering Science and Technology** 

August 2022, Vol. 17(4)

As the result of the independent t-test shows, the average point of view score doesn't have a meaningful difference in the studied staff according to age regarding the level of electronic readiness of South Khorasan's Noor credit institution (p>0.05).

Table 5. The comparison of the average point of view score regarding the level of electronic readiness of South Khorasan's Noor credit institution in the studied staff according to the years of service.

	Years of service	Mean	Standard Deviation	t	df	p
Information Technology	12 years and less	3.69	0.87	0.82	40	0.42
Strategy and Policy Readiness	More than 12 years	3.89	0.69	_		
Informational Technology	12 years and less	3.81	0.84	0.59	40	0.56
Substructure Readiness	More than 12 years	3.95	0.67			
Managerial Readiness	12 years and less	3.89	0.81	0.23	40	0.82
	More than 12 years	3.94	0.64			
legal-lawful Readiness	12 years and less	3.53	0.63	0.79	40	0.44
	More than 12 years	3.69	0.69			
Human Resources (staff)	12 years and less	3.52	0.80	0.31	40	0.76
and Cultural Readiness	More than 12 years	3.45	0.70	_		
Processes Readiness	12 years and less	3.80	0.72	0.39	40	0.70
	More than 12 years	3.88	0.61			
Electronic Readiness in	12 years and less	3.71	0.67	0.49	40	0.63
Total	More than 12 years	3.81	0.57			

As the result of the independent t-test shows, the average point of view score doesn't have a meaningful difference in the studied staff according to the years of service regarding the level of electronic readiness of South Khorasan's Noor credit institution (p>0.05).

As the result of one-way analysis variance test shows, the average point of view score doesn't have a meaningful difference in the studied staff according to the level of education regarding the level of electronic readiness of South Khorasan's Noor credit institution (p>0.05).

Table 6. The comparison of the average point of view score regarding the level of electronic readiness of South Khorasan's Noor credit institution in the studied staff according to the level of education.

	level of Education	Mean	Standard Deviation	F	df	p
Information	Diploma	3.36	0.75			
Technology	B.A	3.75	0.83			
Strategy and Policy Readiness	MA	4.17	0.56	1.60	(39,2)	0.22
Informational	Diploma	3.60	0.99			
Technology	B.A	3.87	0.77	•		
Substructure Readiness	M.A	4.02	0.68	0.42	(39,2)	0.66
M	Diploma	3.72	0.42			
Managerial Readiness	B.A	3.92	0.81	0.21	(39,2)	0.01
Readiness	M.A	4.00	0.61			0.81
local loveful	Diploma	3.75	0.53			
legal-lawful Readiness	B.A	3.53	0.68	0.47	(39,2)	0.63
Reaumess	M.A	3.75	0.59	0.47	(39,2)	0.03
Human	Diploma	3.48	0.23			
Resources	B.A	3.48	0.80			
(staff) and Cultural Readiness	M.A	3.54	0.87	0.02	(39,2)	0.98
Dwaggag	Diploma	3.50	0.18			_
Processes Readiness	B.A	3.88	0.73	0.60	(20.2)	0.51
Readiness	M.A	3.89	0.63	0.69	(39,2)	0.51
Electronic	Diploma	3.57	0.50			
Readiness in	B.A	3.75	0.66	0.43	(39,2)	0.65
Total	M.A	3.91	0.56	0.43		0.03

Table 7. The comparison of the average point of view score regarding the level of electronic readiness of South Khorasan's Noor credit institution in the studied staff according to the field of study.

			_		•	
	Field of Study	Mean	Standard Deviation	F	df	p
Information	Humanities	3.59	0.75	_		
Technology	Science	3.80	0.94	_		
Strategy and Policy Readiness	Engineering	3.93	0.75	0.69	(39,2)	0.51
Informational	Humanities	3.82	0.73	_		
Technology	Science	3.87	0.90	-		
Substructure Readiness	Engineering	3.90	0.77	0.04	(39,2)	0.96
Managerial	Humanities	3.93	0.81	•	•	
Readiness	Science	3.85	0.63	0.04	(39,2)	0.96

**Journal of Engineering Science and Technology** 

August 2022, Vol. 17(4)

	Engineering	3.93	0.78			
local lamful	Humanities	3.60	0.71			
legal-lawful Readiness	Science	3.70	0.52	0.27	(20.2)	0.77
Reaumess	Engineering	3.52	0.69	0.27	(39,2)	0.77
Human	Humanities	3.28	0.70			
Resources	Science	3.84	0.57			
(staff) and				1.85	(39,2)	0.17
Cultural	Engineering	3.45	0.85	1.65	(39,2)	0.17
Readiness						
Processes	Humanities	3.67	0.66			
Readiness	Science	3.98	0.60	0.77	(39,2)	0.47
Reaumess	Engineering	3.89	0.74	0.77	(39,2)	0.47
Electronic	Humanities	3.66	0.62		•	•
Readiness in	Science	3.84	0.63	0.29	(20.2)	0.75
Total	Engineering	3.78	0.65	0.29	(39,2)	0.73

As the result of one-way analysis variance test shows, the average point of view score doesn't have a meaningful difference in the studied staff according to the field of study regarding the level of electronic readiness of South Khorasan's Noor credit institution (p>0.05).

Table 8. The comparison of the average point of view score regarding the level of electronic readiness of South Khorasan's Noor credit institution in the studied staff according to the organizational position.

	Organizational position	Mean	Standard Deviation	F	df	p
Information Technology	Bank supervision	3.90	0.80			
Strategy and Policy	Second degree branch	3.51	0.91	1.09	(20.2)	0.35
Readiness	Third degree branch	3.90	0.64	1.09	(39,2)	0.55
Informational	Bank supervision	3.89	0.76			
Technology Substructure	Second degree branch	3.78	0.92	0.14	(20.2)	0.87
Readiness	Third degree branch	3.93	0.64	0.14	(39,2)	0.87
	Bank supervision	3.95	0.81			
Managerial Readiness	Second degree branch	3.94	0.88	0.13	(39,2)	0.88
	Third degree branch	3.82	0.45	0.13	(39,2)	0.88
legal-lawful	Bank supervision	3.75	0.47			
Readiness	Second degree branch	3.59	0.82	1.03	(39,2)	0.37

	Third degree branch	3.40	0.62			
Human	Bank supervision	3.45	0.77			
Resources (staff) and	Second degree branch	3.56	0.90	0.00	(20, 2)	0.02
Cultural Readiness	Third degree branch	3.47	0.58	- 0.08	(39,2)	0.92
	Bank supervision	3.94	0.65			
Processes Readiness	Second degree branch	3.89	0.81	- 0.82	(20, 2)	0.45
	Third degree branch	3.63	0.51	- 0.82	(39,2)	0.43
Electronic	Bank supervision	3.82	0.60			
Electronic Readiness in Total	Second degree branch	3.71	0.77	0.12	(20, 2)	0.88
	Third degree branch	3.72	0.51	- 0.13	(39,2)	0.00

As the result of one-way analysis variance test shows, the average point of view score does not have a meaningful difference in the studied staff according to the organizational position regarding the level of electronic readiness of South Khorasan's Noor credit institution (p>0.05).

#### 6.Discussion and Conclusion

The evaluation of the level of electronic readiness provides this opportunity for policymakers with monetary and financial fields and to know their organizations and communities' strengths and weaknesses and to provide the ground to accept these technologies. According to the achieved results, from the studied staff's point of view, the level of electronic readiness of South Khorasan's Noor financial and credit institution is at a high level (more than the average score 3) in general and components of IT strategy and policy readiness, information technology's substructure readiness, managerial readiness, legal-lawful readiness, readiness of human resources (staff) and culture, and processes readiness. Also, the results indicated that the condition of Noor financial and credit institution of South Khorasan in the fields of management, information technology's substructure, and processes had been better than other fields.

In a study, Tabarsa et al. [22] examined the level of electronic readiness of governmental organizations for the successful establishment of the management system of electronic human resources in Yemen, and they achieved this result that the level of electronic readiness of governmental organizations is at a high level (more than the average score 3) in technical substructure and information technology dimensions, human resources and cultural factors, legal-lawful substructures, managerial factors, and information technology-based strategies and processes. The general score of electronic readiness of the studied organization was calculated at 3.15, and the status of this organization was better than other fields

respectively in the field of managerial factor, information technology-based strategies, and processes.

The study result of Ranjbarzadesh et al. [23] in the field of examination of electronic readiness of Tabriz University of Medical Science indicated that in general university employees, students, managements, and information technologies' technicians are in an acceptable, good level of electronic readiness. Vaughne [24] performed a study with the purpose of examination and evaluation of the criterion indices of electronic readiness public libraries institution of East Azerbaijan Province and achieved this result that the electronic readiness of the public libraries of East Azerbaijan Province is at a desirable level (53%).

The results of these studies are favourable with the result of the present study. In a study, Noori et al. [25] evaluated the level of electronic readiness faculties of Ferdowsi University of Mashhad by the emphasis on access to information. Information required for each of the main parts of the model was collected including organizational readiness, informational readiness, substructure readiness, human resources readiness, and external environment readiness. Results indicated that faculties of Ferdowsi University of Mashhad are weak in the majority of these departments, especially organizational readiness, external environment readiness, and human resources readiness.

Yaghoub and Ismaiel [26] examined the status of the electronic readiness of university libraries of Tabriz University from five dimensions of organization and management, usage of information and communication technologies, readiness of staff and human resources, and readiness to communicate with the environment and other organizations. Results indicated that the electronic readiness of libraries of Tabriz universities is not at a desirable level 2.44 points of the maximum of 5 possible points. The most weakness was in the environment and the communication with other organizations dimension (2.31), and information and communication technologies dimension (2.73) was in a better situation than the other dimensions. The results of these studies are inconsistent with the results of the present study. The evaluation of the level of electronic readiness can play an important role in knowing different aspects of information technology in economic organization and agencies, and subtle planning for the successful establishment of information and organizational systems, such as electronic human resource management [27].

The awareness of the processes, dimensions, and indices of the electronic readiness helps the countries officials and the managers of organizations to succeed in the design and performance of information and communication technology strategies. Lots of politicians believe that information and communication technology can help their country to solve the social and economic issues which they are facing, and they are ready to make the necessary changes to take advantage of such new technologies. They need to know the real value of what they can do with information and communication technology, moreover, their trust ought to be strengthened in this direction.

The evaluation of the electronic readiness will be the first step to turn intentions into planned actions that will lead to fundamental changes in the way people live. Given that one of the most important tasks of management is the evaluation of the organization and jobs available in the organizations; therefore, designing effective frameworks is necessary and inevitable based on which organizations can be fairly

evaluated and judged, while providing the grounds for the satisfaction of the employees and the internal members of the organization.

The results of the present study indicated that the average point of view score about the electronic readiness of South Khorasan's Noor financial and credit institution in the studied staff doesn't have a meaningful difference according to the gender, the age, the years of service, the level of education, the field of study, and organizational position. By searching the available databases, a study that compared and examined the organizations' level of electronic readiness according to the demographic characteristics was not found. Thus, the comparison of this part of the results of the present study with the results of other studies was not possible.

According to the results obtained in order to strengthen and promote the electronic readiness in this organization, the following suggestions are presented:

- Holding regular technical skills training courses and training workshops in the field of information technology
- Value the specialized training in the ground of various applications of electronic human resources management
- In-service training to the staff for more use of technologies
- Making the necessary substructures for doing the electronic affairs in the organization, such as staff training, making it possible to use the high speed internet, etc.
- More attention to policy status related to the informational technologies
- Planning for network-related training
- Acceleration of the process of the official processes automation
- Investment in the field of information technology projects management
- Changing the organizational culture and making sensitivity to it

In this study, the researcher faced some limitations. One of them was the small sample size. if we had a larger sample size (For example, the total staff of Noor Financial and Credit Institution in Eastern Iran or the entire staff of this institution in Iran), we might have obtained more accurate results. The results of the present study have been limited to the level of electronic readiness in the branches of Noor Financial and Credit Institution in cities of Khorasan province and if it needs to be generalized to other financial and credit institutions and banks, this should be done with sufficient caution and knowledge. Another limitation of this study is the lack of similar research work in order to better compare the results.

## References

- 1. Menou, M.J.; and Taylor, R.D. (2006). A "Grand Challenge": Measuring information societies. *The Information Society*, 22(5), 261-267.
- Molla, A. (2004). The impact of e-readiness on ecommerce success in developing countries: Firm-level evidence. Oxford, MA: Institute for Development Policy and Management, University of Manchester, Precinct Centre, Manchester, UK.
- 3. Noor Credit Institution Company (2022). Retrieved October 5, 2020, from https://clarifiedby.diligenciagroup.com/company/summary/3344898-noor-credit-institution-company/

- 4. Dehnavi, M.B.; and Rezaeenour, J. (2012). *The study of E-readiness in Melli Bank of Guilan Province in experts' view*. Master Thesis, Islamic Azad University.(in Persian).
- 5. Dehnavi, M.B.; Rezaeenour, J.; and Hani, S.H. (2012). Provide a conceptual model for assessing the E-readiness of government agencies using the Delphi method. Proceedings of the 2nd Lahijan National Conference on Software Engeering. (in Persian).
- 6. Kuo, Y.-L. (2013). Technology readiness as moderator for construction company performance. *Industrial Management and Data Systems*, 113(4), 558-572.
- 7. Lin, J.-S.C.; Chang, H.-C. (2011). The role of technology readiness in self-service technology acceptance. *Managing Service Quality: An International Journal*, 21(4), 424-444.
- 8. Lam, S.Y.; Chiang, J.; and Parasuraman, A. (2008). The effects of the dimensions of technology readiness on technology acceptance: An empirical analysis. *Journal of Interactive Marketing*, 22(4), 19-39.
- Brueckner, A.R.K. (2002). Government & community building: A study of michigan local governments online. Association for Information Science & Technology (ASIST), 39(1), 539-541.
- 10. Flak, L.S.; Olsen, D.H.; and Wolcott, P. (2005). Local E-government in Norway: Current status and emerging issues. *Scandinavian Journal of Information Systems*, 17(2), 41-84.
- 11. RezaeeKlidbari, H.R.; Davari, A.; and Imani, A. (2012). The examination and comparison of organizational E-readiness: Case study: Two financial and commercial organizations. *BI Management Studies*, 1(1), 75-90.
- 12. Shirvani, H.R.; and Baneshi, Z. (2009). Baharestran new city electronic municipality's preparation evaluation according to electronic municipality. Urban management, 7(23), 59-70.
- 13. Musa, M.R. (2010). *An e-readiness assessment tool for local authorities:A pilot application to Iraq*. A Master Thesis. Department of Public Policy and Administration, the American University in Cairo.
- 14. Tavana, M.; Zanadi, F.; and Katehakis, M.N. (2013). A hybrid fuzzy group ANP–TOPSIS framework for assessment of e-government readiness from a CiRM perspective. *Information & Management*, 50(7), 383-397.
- 15. Seakow, A.; and Samson, D. (2011). E-learning readiness of Thailand's universities comparing to the USA's cases. *International Journal of e-Education*, e-Business, e-Management and e-Learning, 1(2),126-131
- 16. Olatokun, W.; and Opesade, A. (2008). An E-readiness assessment of Nigeria's Premier University (Part 1). *International Journal of Education and Development of Using ICT*, 4(2),16-46.
- 17. Oraee, N.; Sohrabi, M.C.; Sanayei, A.; and Noghabi, H.J. (2013). E-readiness survey of university libraries in Isfahan. *Library and Information Science Research*, 3(2), 113-132.
- 18. Chang, P.-L.; and Chieng, M.-H. (2006). Building consumer-brand relationship: A cross-cultural experiential view. *Psychology & Marketing*, 23(11), 927-959.

- 19. Khaemba, S.N.; Muketha, G.M.; and Matoke, N. (2017). Factors affecting citizen readiness for E-government systems in Kenya. *Journal of Research in Engineering and Applied Sciences*, 2(2), 59-67.
- 20. Tan, F.T.C.; Tan, B.; Wang, W.; and Sedera, D. (2017). IT-enabled operational agility: An interdependencies perspective. *Information & Management*, 54(3), 292-303.
- 21. Tabarsa, G.A.; Haghighi, M.A.; and Al-Masuri, K. (2017). Evaluating the Ereadiness of government agencies to establish a successful electronic human resource management system in Yemen. *Public Administration Perspective*, 7(26), 77-104. (in persian).
- 22. Tabarsa, G.A.; Haghighi, M.A.; and Almaswary, K. (2016). A survey on Ereadiness of public organizations for successful emplementation of E-HRM in Yemen. *Journal of Public Administration Perspective*, 7(26), 77-104.
- 23. Ranjbarzadesh, S.F.; Biglu, M.H.; Hassanzadeh, S.; Safaei, N.; and Saleh, P. (2013). E-readiness assessment at Tabriz University of medical sciences. *Research and Development in Medical Education*, 2(1), 3-6.
- 24. Vaughne, R.B. (2012). Review and evaluation of electronic readiness criteria indicators in the public libraries of the country, Case Study: Public libraries of East Azerbaijan Province (Iran). Master Thesis, Islamic Azad University, North Tehran Branch, (in Persian).
- 25. Noori, A.; Kahani, M.; and Afkhami, H. (2007). Assessing the level of electronic readiness of the faculties of Ferdowsi University of Mashhad with emphasis on access to information. *Proceedings of the 3rd International Conference on Information and Knowledge Technology(IKT2007)*,1-8.(in Persian).
- 26. Yaghoub, N.; and Ismaiel, J. (2013). Survey of the E-readiness in university libraries: The case of Tabriz University libraries. *Library and Information Sciences*, 16(1), 61, 123-150.
- 27. Ma, L.; and Ye, M. (2015). The role of electronic human resource management in contemporary human resource management. *Open Journal of Social Sciences*, 3(4), 71-78.