

International Scientometric Systems: A Study of Acceptance Management in Academic Communities

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Abstract

The reluctance of university members to enter their information in International Scientometric Systems (ISSs) is counterproductive behavior for human resource management for international university rankings. The explicit goal of this research was to identify the necessary conditions for ISSs acceptance management in an Iranian academic community. To identify factors affecting the acceptance of ISSs and explore members' attitudes towards them after a focused literature review, user feedback in training classes of ISSs was recorded through the researcher's participation during two semesters. This information was placed as components of a self-made questionnaire after multiple codings based on grand theory. Then, a self-made questionnaire technique was used to investigate correlations between these factors. Snowball sampling collected data from 86 expert users of this system, and the hypotheses were tested. In entering information in ISSs, experience of using ISSs, facilitating conditions, expected effort, and expected performance were identified. Finally, the relationships of these variables were presented based on the path analysis model. The results showed that usefulness, expected effort, experience, and facilitating conditions effectively use the systems through the willingness to use ISSs. However, the members were unwilling to use ISSs because they were not well justified about the micro and macro goals of the university ranking systems. Completing information in these diverse systems is considered time-consuming and repetitive. The existing rules for each system are considered cumbersome. Access to these systems' cookies to their personal information is not considered safe and desirable. The results' significance, implications, and limitations have also been deliberated for further research.

Keywords: International Scientometric Systems, Facilitating Conditions, Willingness, Academic Community, World University Rankings.

Introduction

In the last decade, competitive conditions have increased interest in using the International Scientometric Systems (ISSs) ranking to promote the level of academic human resource management (Jovari & Mohammadi Moghadam, 2021). In university ranking systems, ISSs are part of Information Systems (ISs) for entering and retrieving data in databases (Bonkra, et al., 2023) and distributing information to support organizational decision-making and control. ISs

are sets of interrelated components that collect or retrieve, process, store, and distribute information to support decision-making and control in an organization; ISs can also be used to analyze information and problems, visualize complex subjects, and create new products (Yildiz, Ersoy & Yildirim, 2021). Information systems may also analyze problems, visualize complex subjects, and create new products (ibid). It is worth noting that a database is an organized collection of related information. It is an organized collection because, in a database, all data is described and associated with other data. All information in a database should also be related; separate databases should be created to manage unrelated information. For example, a database containing student information should not also hold information about company stock prices. Databases are not always digital - a filing cabinet, for instance, might be considered a database. For this text, we will only consider digital databases. Scientometrics is a field of knowledge that examines the characteristics of scientific information and studies and ranks and compares the scientific databases of countries, organizations, and individuals based on valid international data. In Scientology ranking, statistical methods are used to determine science's growth and development criteria and its effects in different human societies (Marginson, 2022).

Organizational theorists have described universities as complex social systems that have multiple interactions with their surrounding environment (Nazarzadeh Zare & Ghorraishi Khorasgani, 2022) so ISSs have numerous benefits in the management of universities, including improving performance, sustainable practices, and project efficiency (Yevu, Yu, Tetteh & Antwi-Afari, 2022).

Times Higher Education World University is an example of ISSs, which ranks research-intensive universities across all their core missions: teaching, research, knowledge transfer, and international outlook. As shown in Figure 1, in 2022, they use carefully calibrated performance indicators to provide comprehensive and balanced comparisons. Members must provide and register their institutional data in these ranking systems that are grouped into five areas: teaching (the learning environment); research (volume, income, and reputation); citations (research influence); international outlook (staff, students, and research); and industry income (knowledge transfer).

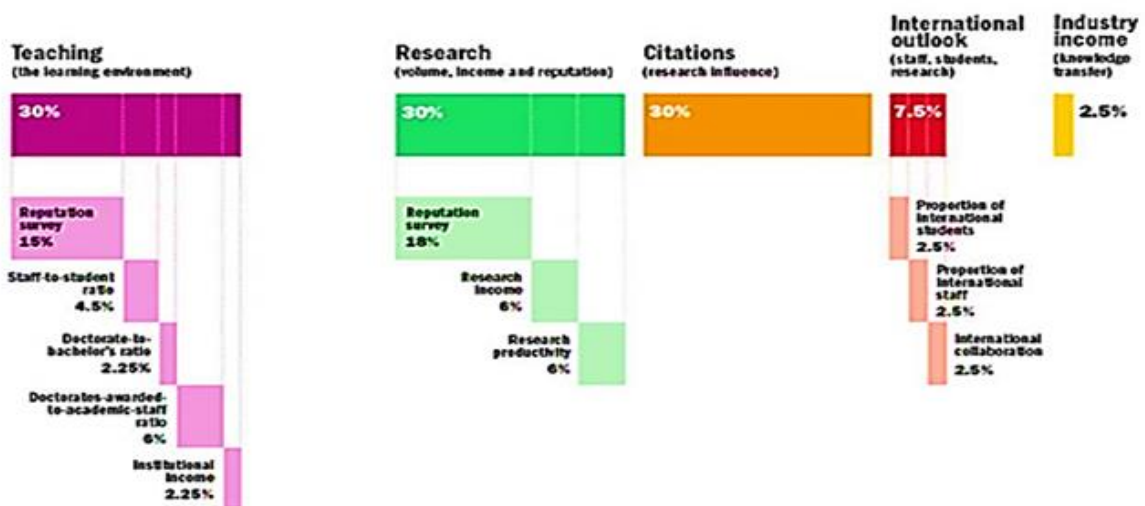


Figure 1: World University Rankings 2022: Methodology

University rankings by ISS_s can help to enhance a university's reputation in recruitment, funding, student recruitment, benchmarking against peers, improved student experience, internationalization of the curriculum, attraction of top research talent scientific discoveries, collaboration opportunities, cultural impact, brand recognition, enhanced public image, global networks, government support, competitive advantage, improved international collaboration, enhanced reputation in specialized areas, increased impact on society (Kupriyanova, Estermann & Sabic, 2018). However, studies show that the participation of academics in entering information in ISSs ranking under organizational pressure, which means that their performance is not based on internal motivations, and the managing information system is less effective in those universities (Jovari & Mohammadi Moghadam, 2021; Emami Gharetappeh, Osareh & Ebrahimi, 2023; Holstein & Doroudi, 2021). Furthermore, more university administrators who want to achieve high international rankings must know how to encourage users to participate in recording information effectively. These will lead to understanding, coordination, and timely and accurate entry of information so that employees can provide higher work performance in the future. Few studies analyze the efficiency and importance of using ISSs in educational and research centers. The studies show the significant growth of Iran's scientific productions in recent years, but these achievements have not been reflected internationally as they should be. Researchers in the field of scientometrics, with their current situation in Iran and not having a suitable model to consider all the internal and external factors affecting it are moving towards a vague and worrying future (Emami Gharetappeh et al., 2023). Conducting studies to identify the driving forces affecting scientometrics in Iran can reduce these concerns to some extent and prepare scientometrics policymakers for appropriate and timely action towards these factors.

According to the above, the problem of the present research is to study acceptance management in academic communities, especially in the academic community of Iranians. The following research questions have been considered:

1. What factors affect the acceptance of ISSs in academic societies?
2. What is the attitude of the members of ISS's acceptance model in academic societies?
3. How are decisions to use ISSs formed in Iranian academic societies?

The following sections present an overview of the theories related to the selection and decision-making of information system users, the research model, and assumptions. Then, the research method used in this research is explained, and the statistical results and discussion about the findings are presented; conclusions and implications are discussed, and finally, the implications and limitations of these findings are presented.

Theoretical material

Universities need to work on collecting, processing, storing, and transmitting information technology systems through information systems (Gupta, Kumar & Bhatnagar, 2016; Hendriyati et al., 2022)) such as ISS_s. Among the related theories about ISS_s acceptance, the classic theory of "Rational Action" proposed by Ajzen and Fishbein in 1975 is very important. As shown in Figure 2, the agent of behavior is behavioral intention. Desire is influenced by an individual's attitude and mental or social norms. In this model, attitude structure is measured by two variables, i.e., behavioral beliefs and aspirations resulting from behavior. The variable of mental norms is also formed from beliefs and the tendency to adapt to others. It should be mentioned that this theory was tested in several laboratory research, and it is the outcome of

numerous field studies such as education and training, smoking cessation, oral and dental hygiene, blood tests, and cancer tests (Doria, 2021).

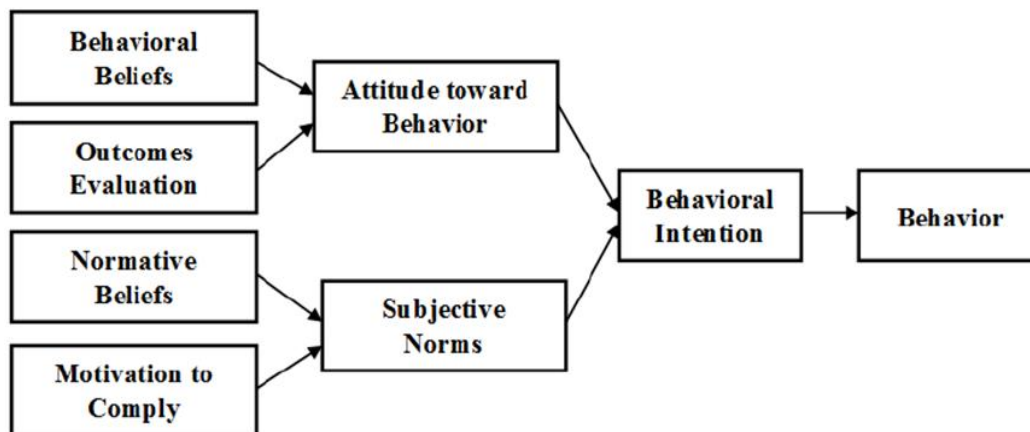


Figure 2: Theory of Rational Action

In the field of International Scientometric Systems acceptance and use, the model presented by Davis (1986 cited in Attié & Meyer, 2022) directly seeks the causes of non-acceptance and use of information systems. In the last model, two variables of usefulness and ease of use of technology have been added to the rational action theory. It should be mentioned that in this model, a tendency to use is influenced by the person's attitude and the computer's usefulness. In addition, individual attitude is influenced by the variables of usefulness and ease of use, and the two variables of usefulness and ease are themselves influenced by external (environmental) variables. In addition, although the size of usefulness is affected by the ease of use, this effect is limited (Attié & Meyer, 2022). In 1991, Ajzen and Driver introduced the theory of "Planned Behavior," an advanced model of the theory of Rational Action. Compared with the theory of Rational Action, attitude structures and mental norms have been preserved in the new model, and the variable of behavioral control has been added to it. In justifying the addition of the new structure, Ajzen and Driver (1991) claimed that as a general rule, the greater the desire of a person, the greater the possibility of behavior, but only having the desire (motivation) is not enough. The structure of behavior control was added to the new model to show the ability and available facilities (time, money, and cooperation of others) for real control of the person's behavior (Ayar & Gürbüz, 2021). In this regard, Davis, Bagozzi, and Warsaw in 1989 (cited in Chen, Yang, Guo & Zhang, 2021) determined that the amount of use of computer services can be based on the willingness to use, the level of usefulness, and facilitating (ease) conditions of use (Chen, Yang, Guo & Zhang, 2021). The facilitating conditions are the degree to which users believe that supporting software and hardware conditions and systems are achieving their goals (Bervell, Kumar, Arkorful, Agyapong & Osman, 2022); usefulness is the degree to which a person believes in its usefulness in achieving work goals (Bansah & Agyei, 2022) and willingness is acceptance of an undesirable situation based on positive expectations about the actions of others (Lee et al., 2022). Further, Taylor and Todd (1995) made changes to the model of Planned Behavior to predict consumer behavior. As shown in Figure 3, they considered the variables of attitude, mental norms, and behavioral control as underlying variables and measured them with other variables. In the new model, known as the decomposed model of planned behavior, attitude structure as a variable is represented by three variables: comparative

advantage, compatibility, and complexity. In addition, the subjective norms variable is under the influence of normative effects, and finally, the behavioral control structure is measured in the form of a latent variable and by two other variables, which are individual adequacy and facilitating conditions (Hauslbauer, Schade, Drexler & Petzoldt, 2022).

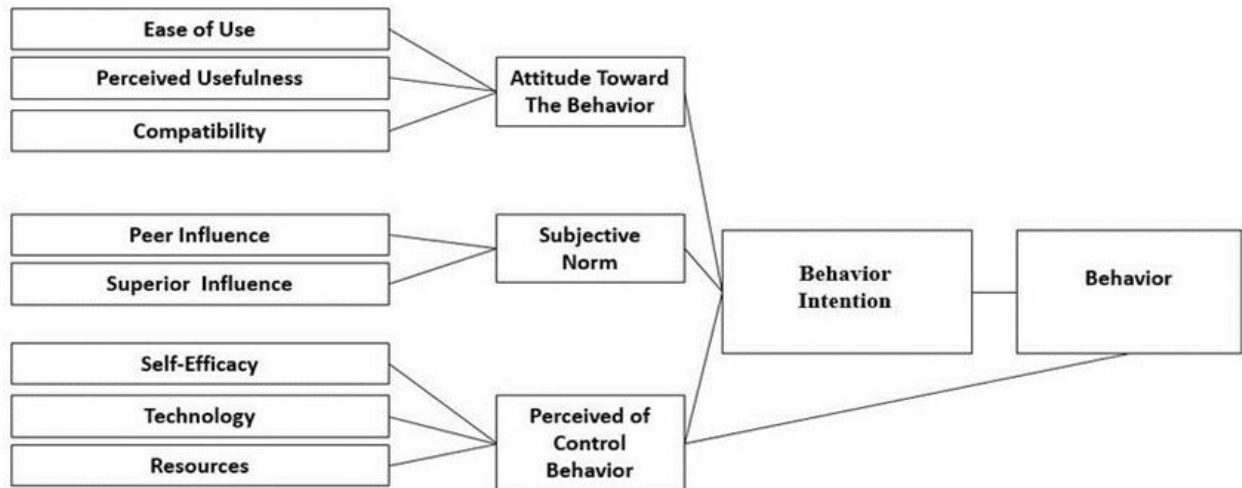


Figure3: Interpreted Model of Planned Behavior

In the Unified Theory of “Acceptance and Use of Technology” (UTAUT) model, four constructs in determining the acceptance of technology systems are expected performance, expected effort, social influence, and facilitative conditions (Dana, Gavril, Maier & Ignat, 2022).

Literature review

After examining the historical course of this research, the literature background to interpret the findings in the field of identification of the ISSs acceptance management is explained as follows:

Biranvand & Cheraghi (2022) aimed to identify the effect of altmetrics indicators of the Mendeley resource management database on scientometric indicators in Scopus and Web of Science citation databases. This study was conducted by the scientometric method with an altimetry approach. The statistical sample for the study includes Iranian researchers in the field of nursing who had an indexed document in the Scopus citation database and were also members of the Mendeley resource management database. Findings show no significant relationship exists between the h-index in Scopus and the followers' index in Mendeley. However, there is a significant relationship between the co-authorship index, h-index, citations, readers, publications, and viewers in the Mendeley scientific social network with indexes of citation number and h-index in the Web of Science citation database, but there is no significant relationship between the follower's index and these indicators. A significant relationship exists between the h-index in the Mendeley, Scopus, and Web of Science databases. The correlation between the Mendeley h-index and Web of Science is stronger than the correlation between the Mendeley h-index and Scopus. “Traditional Citation Indexes and Alternative Metrics of Readership” study shows that the use of some ISSs such as “Mendeley Software” with the possibility of tagging articles, can be used to create a searchable folksonomy of information

and as a source of data in information retrieval studies, help professionals to manage their kinds of literature and make their research life easier (Riahinia, Rahimi, Jahangiri, Mirhaghjoo & Alinezhad, 2018). Gryncewicz and Sitarska-Buba (2021) conclude that scientometric analysis is important to present research areas and directions in data science to support the decision-making process. The Scopus database was chosen as a source database to perform scientometric analysis. The authors identified core business areas where data science tools have been used in decision-making processes. They showed that a significant increase in scientific articles in the medical field directly depends on research funding institutions. Another study is a meta-analysis that synthesizes previous research on accepting Healthcare Information Technologies (HIT). This study finds that HIT acceptance depends on various predictors proposed by the technology acceptance model and the unified theory of acceptance and use of technology. These factors displayed strong indirect effects through effort expectancy, perceptions of the technology, performance expectancy, and attitudes toward using HIT (Alain, Markus & Shuning, 2022). Muley and Josh (2020) determined the level of acceptance of computer-based or management information systems among university employees in the cities of Madhya Pradesh. The results indicated university staff members used information systems because of university mandates. They experienced ease in their daily work and thus developed a dependency on these systems for obtaining all required data and information regarding their work. Another systematic review finds that multiple factors influence technology acceptance in the pre-implementation stage. However, post-implementation research on technology acceptance by community-dwelling older adults is scarce, and most of the factors in this review have not been tested through quantitative methods. Based on Jovari and Mohammadi Moghadam (2021) findings, strategies such as "member' knowledge management and psychological empowerment" are effective organizational factors for academics' participation in the university's informational activities. Ahmadi, Osareh, Heydari and Hosseini Beheshti (2017), in their study entitled "Drawing and Analysis of the Conceptual Network of the Knowledge Structure of Scientometric in Iran," investigated the conceptual network of the knowledge structure of Scientometrics in Iran through the documents provided by Iranian researchers inside and outside the country. The cluster analysis results showed that scientometrics in Iran is divided into 17 thematic clusters. The documents of this field in Iran have grown by 32%, and in recent years, 270 emerging conceptual events in the form of 13 conceptual models have been presented in the documents of this field (Emami Gharetappeh et al., 2023).

In a comprehensive summary of the research background, it can be said that the studies conducted in the field of International Scientometric Systems are divided into three general categories: Research related to the acceptance and use of international scientometric systems, information systems, and technological systems. It seems the current study is the first experimental research to investigate the International Scientometric Systems acceptance management in an Iranian academic community, so it is expected that this study's results may increase university management's awareness to motivate their employees to use ISSs.

Materials and Methods

Implemented into a qualitative-quantitative research method

These resources were in human resource management and university ranking systems, and the goal was to investigate the factors affecting the acceptance and use of ISSs. The variables

were examined and measured at the individual/respondent level, and the results were described and analyzed at the same level. Therefore, the interview and structured questionnaire were used as the observation tool, considered an "individual" unit of analysis. Two common methods in management and social science research, namely the theoretical and survey methods, were used. This research used sources such as semi-structured oral surveys, previous studies, and management and behavioral theories for triangulation purposes. To begin with, some ISSs were selected. These systems are organizational databases that contain information such as educational, research, and cultural achievements of faculty members and users who must personally enter and update their information in these systems. Users' feedback was recorded to analyze the state of acceptance and decision to use ISSs. The data was collected during two academic semesters. Users' feedback was recorded through the researcher's participation in educational workshops, international scientometric systems, and direct and indirect observation. In this way, based on the practical scientific experiences of the researcher, these educational research centers were chosen non-randomly. These centers have examined the use of systems in a range of successful and unsuccessful experiences. The researcher participated in the users' training and troubleshooting workshops and recorded their feedback. Interviews were also conducted with the system support officials and many users. Positive and negative feedback were recorded. These feedbacks were placed in the form of components after multiple codings based on grand theory. Of course, codes such as security topics, personal privacy, academic rank, academic field, lack of awareness, and understanding of the quantity and quality of the importance of inserting and updating information were new codes not found in the background. Following the codes and concepts found, semi-structured interviews were conducted with ten members of the university, experts, and those responsible for the registration and information retrieval in the ISSs. In the second part of the research, based on the findings from the first part of the research and according to the conceptual model obtained for universities, a researcher-made questionnaire was prepared and implemented. The reliability of the questionnaire was tested for Cronbach's alpha coefficient, which was recognized at a value of not less than 0.7 (Leephaijaroen, 2016). In this study, the Cronbach alpha value was tested for each dimension. All of the Cronbach alpha values were more than 0.7, which indicates that the dimensions used for each variable are accepted as reliable. The questionnaire was completed by eighty-six expert users of this system, who were selected by snowball sampling. Participation in the study was voluntary, and all participants' privacy was preserved to avoid any influences/biases while recording the data. The data were analyzed using SPSS version 20.0. Finally, regression and path analysis modeling are discussed.

Results

To find the factors affecting the acceptance of ISSs and scrutiny of members' attitudes and acceptance, prerequisites, facilitators, barriers, and solutions to encourage members to use ISSs were investigated by a triangulation method. Based on the findings of this part of the research, members of this study emphasized usefulness, expected effort, facilitating conditions use, experience, field of study, academic rank, and willingness to use ISSs. The analysis of these findings is presented in the discussion section. In the following, based on the mentioned findings for studying the relationships between the factors affecting the acceptance of ISSs and discovering how decisions to use ISSs formed in Iranian academic societies, the conceptual framework of research was suggested in Figure 4, and the hypothesis was proposed:

H₁: Field of Study, Usefulness, Academic Rank, Expected Effort, Experience, Facilitating Conditions, and Willingness have positive direct effects on the Decision to use ISSs.

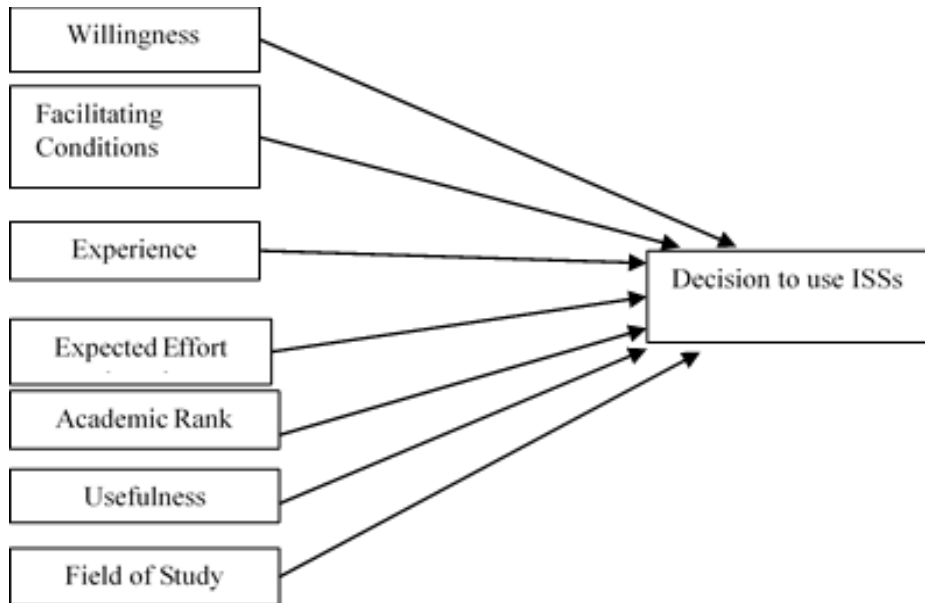


Figure 4: Conceptual Model of This Research

Table 1 represents statistical information about the attributes of the respondents, including age, level of education, and field of study. The participants who were 20 to 30 years old were 65 percent; 16.3 percent were 31 to 40 years old; the 40 to 50-year-olds constituted 2.3 percent of the population. And 51 and above were 2.3 percent. 80.2 percent of users had a Master's degree in science. Their fields of study included engineering, humanities, art, foreign languages, and science. Most of the participants (48.8 percent) were in the field of humanities.

Table 1
Attributes of the Respondents

field of study	f	Rel. f	c.f	Academic Rank	f	Rel. f	c.f	Age	f	Rel. f	c.f
science	23	26.7	26.7	Bachelor	2	2.3	2.3	30-20	65	75.6	75.6
engineering	2	2.3	29.1	Master's Degree Science	69	80.2	82.6	40-31	14	16.3	91.9
humanities	42	48.8	77.9	Doctorate	13	15.1	97.7	50-41	2	2.3	94.2
art	8	9.3	87.2	Unanswered	2	2.3	100	60-51	2	2.3	96.5
foreign languages	5	5.8	93	Total	86	100	-	Unanswered	3	3	100
Unanswered	6	7	100					Total	86	100	

According to the information in Table 2, it can be said that the average desire to use ISSs (the mentioned systems) is 7.70 percent, and the decision to use it is 14.50 percent. The experience of using 53.10 percent and facilitating conditions is 48.32 percent. The experience

of using ISS has the highest average percentage. This means more than half of the members have experience using these systems. That is, the users have evaluated the comfort level and facilities to use these systems by 48.32 percent. The users have evaluated the usefulness of these systems below 10 percent. The users have evaluated the success rate of their efforts at 8.58 percent. The willingness to use these systems was 7.70 percent. In total, 14.50 percent were willing to use these systems voluntarily.

Table 2
Description of the Variables of Research

Variables	Average
Usefulness	6.64
Expected effort	8.58
Facilitating conditions	48.32
Experience using	53.10
Willingness using	7.70
Decided using	14.50
Sum of respondents	86

Analysis of Variable Correlation

In this section, the correlation of the variables has been investigated. Table 3 represents the coefficient in the relationships between variables. As can be deduced from the findings in Table 3, there are weak and moderately significant relationships between the ranges of these meaningful relationships varying from 0.013 to 0.98. Based on this, the significant correlation between expected efforts and willingness is at its highest level, between 0.98 and a value ($p \leq 0.05$), and the lowest significant correlation is between facilitating conditions with willingness between 0.336 and a value ($p \leq 0.05$). The data yielded a slight difference within the group and a normal distribution, while each pair of independent variables showed a correlation not exceeding 0.75. Therefore, this did not cause a multicollinearity problem for further analysis.

Table 3
The Correlation Between Independent and Dependent Variables

Depended Variable	Usefulness		Expected Effort		Conditions Facilitating		Experience using		Academic Rank		Field of Study		Willingness	
	PC ³	SL ²	PC	SL	PC	SL	PC	SL	SC ¹	SL	SC	SL	PC	SL
	0.01	0.90	0.98	.000	0.11	0.27	0.13	0.22	-0.11	0.30	1.58	0.17	0.05	0.59

Results of Stepwise Multiple Regression Analysis.

Table 4 shows that the significance of the F test value among all respondents is equal to 950.602, and the p-value is .000 less than 0.01 at the error level; therefore, it can be concluded that the independent variables partially explain the changes in the decision to use ISSs as a

dependent variable.

Table 4

Results of the F Regression Test in the Last Step

Model	SS	df	MS	F - testing	p-value
regression	7695.527	3	2565.176	950/602	.000d
residual	221.275	82	2.698		
Total – sum	7916.802	85			

In this section, the effect of independent variables on the dependent variable is examined by using the stepwise regression for this purpose, the total index of utility independent variables, expected effort, facilitator conditions, and the experience of use, level of education, and willingness concerning the dependent variable (decision to use) were selected for entering from the theoretical model into the regression equation. So, the independent variables were entered into the regression equation and predicted the number of changes in the decision to use ISSs. The results of the analysis are shown in Table 5. Table 5 shows that three independent variables significantly affected the decision to use. The variable with the highest effect was usefulness, followed by facilitating condition and experience.

Table 5

Stepwise Multiple Regression Analysis of Depended Variable on Decided Using

variables	p-value	T - testing	β	b	
			Beta	SEM	B
Constant	.138	1.498		.838	1.256
Usefulness	.000	50.128	.926	.020	.994
Facilitating condition	.000	5.067	.196	.111	.560
Experience	.002	3.126	.121	.142	.444

$$R = 0.986; R^2 = 0.972; \text{Adj} = 0.876; \text{ESE}^4 = 3/40488$$

The value of the correlation coefficient (R) between the variables is 0.986, which shows an acceptable correlation between the set of independent variables and the dependent variable of the research. The value of the adjusted coefficient of determination " R^2 " is equal to 0.972, which shows that about %0.972 percent of the total changes in the rate of the decision to use ISSs by these variables can be predicted. In other words, the set of independent variables predicts (estimates) % 09.72 of the variable's variance to use ISSs, and the rest is explained by variables other than the variables entered in the existing regression model. As a result, according to Table 5, the regression coefficient obtained for all respondents in the utility variable is equal to 0.926, which means that for increasing the standard deviation unit in the utility variable, the decision to use will increase by 0.926 standard deviations. Also, the regression coefficient of the facilitator condition is equal to 0.196, which will increase by 0.196 standard deviation of use for increasing one standard deviation unit in the facilitator condition variable. Finally, the user experience is equal to 0.121. This means that in exchange for increasing a standard deviation

unit in using ISSs, the number of decisions to use ISSs will increase by 0.121. Therefore, the regression equation of this study is as follows:

$$(0.994) \text{ Usefulness} + (0.444) \text{ Usage experience} + (0.560) \text{ Facilitator terms} + (\text{Fixed value}) 1.256 = \text{Decision to use}$$

Path analysis model

The beta coefficient represents the intensity in path analysis, which is determined using regression statistics, which are the factors that have the most impact. It is worth noting that, due to the non-ranking of the type of field of study in this section, the analysis of this nominal variable has been ignored. As shown in the path analysis (Figure 5), usefulness, expected effort, experience, and facilitating conditions are effective in the decision to use the systems through the willingness to use ISSs. The expected effort of ISSs is the most important predictor of the decision to use ISSs, which indirectly affects respondents' decision to use ISSs. The facilitating condition is another variable that has directly affected the decision to use the ISSs. Level of education has an increasing effect due to facilitating conditions (with a coefficient of 0.072), and use experience (with a coefficient of 0.071).

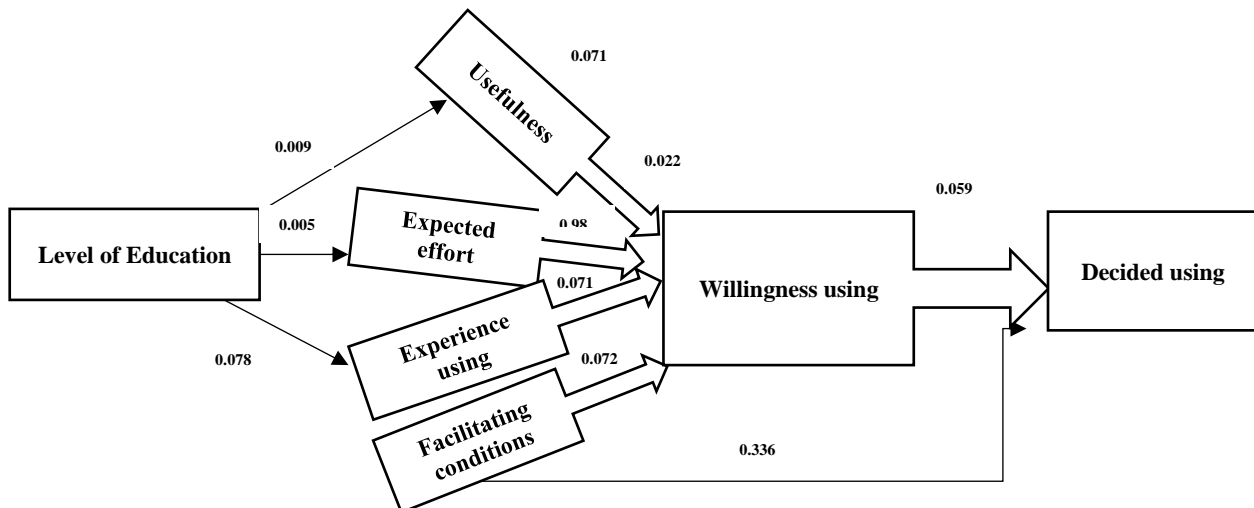


Figure 5: Research Path Analysis Model (the Final Research Model)

Discussion

The findings of this research revealed that usefulness, expected effort, experience, facilitating conditions, and willingness have effects on the decision to use International Science Systems (ISSs); also some of the effective factors in the use of ISSs are the degree of desire and individual and organizational motivations, the desirability of costs, the quality of employee training, optimal time management, adaptability or lack of adaptability, correctness or inaccuracy of information, incompleteness and completeness of information, speed of processes, desirability of hardware and software facilities, the requirement of people to be up-to-date, and how to manage organizational knowledge and behavioral factors. Although these findings were consistent with the findings of the background research, for example, see Özsungur (2019) in the field of the effects of technology acceptance and use behavior on women's entrepreneurship motivation factors; Chao's research (2019) as factors determining the behavioral intention to use mobile learning; the research of Shkitsa, Kornuta, Kornuta,

Bekish and Bui (2020) in the field of exploring users' switching intention and behavior on social networking sites; the research of Li Y and Zhao (2021) in the field of influencing factors of continued intention to use MOOCs; the research of Wu, Gong, Luo, Zhao, Hu, Mou and Jing (2021) in the field of applying control-value theory and unified theory of acceptance and use of technology to explore pre-service teachers' academic emotions and learning satisfaction; the research of Salih Ageed, et al., (2021) in the field of a comprehensive survey of big data mining approaches in cloud systems. the research of Zhuravlova, Kichuk, Yakovenko, Miziuk, Yashchuk and Zhuravska (2022) in the field of innovations in the education system: management, financial regulation and influence on the pedagogical process; the research of Lin and Huang (2023) in the field of exploring users' switching intention and behavior on social networking sites: linear and nonlinear perspectives; in accordance technology acceptance model of Dana et al., (2022) perceived ease of use, perceived usefulness, and perceived enjoyment, intention to use, actual use, compatibility, attitude, self-efficacy, and perceived risk discovered. However, differences were also found because the literature review and background of this research showed that most of the research conducted in information systems are related to the behavior and reactions to technological systems in general and have not been investigated specifically for International Scientometric Systems. Also, most of the past research has been done in organizational knowledge management, knowledge engineering, and data trading in general for different organizations. Also, if research has been done in the field of ranking information, they have studied this issue from the point of view of analyzing the obtained points of strengths and weaknesses, opportunities and threats. They have examined the external and environmental of universities. The findings of these research studies have provided suggestions to improve the positions of universities in the ranking systems. It is worth noting that the level of education and field of study was not investigated in the past research, but in the reviews of this research, the mentioned cases were investigated, and in the first part of the research, data was collected through observation and interview, members of this study emphasized in the field of study and academic rank to use ISSs but as a result of the second part of the research were not a significant relationship between them and the decision to use ISSs. Modern knowledge societies commonly know knowledge as power and data as money. Information is the key to any organization's sustenance, and information management is a major activity amongst various other activities in modern-day universities. ISSs have become a basic resource and part of many progressive universities, and they play a great role for all stakeholders in the present research. Only those employees who had been well-trained were able to work with ISSs. Hence, the employees who are not trained cannot work with ISSs successfully. This indicates that facilitating conditions, such as providing step-by-step training on using the systems, the availability of well-mannered and patient experts for training, and solving academic member queries, should be created more than before. On the other hand, because the input of these systems is done by human resources, human resource management is expected to encourage and motivate users to enter information in these systems, while the background results showed that this issue was neglected. As such as Emami Gharetappeh et al. (2023) showed, given the undesired situation of trends of scientometrics in Iran, policymakers and managers of the country's higher education system in Iran should consider the need to change the trends and the effective drivers of scientometrics because the lack of synchronization with the changes, the effectiveness, and applicability of research will reduce and faded over time. However, usefulness, expected effort, experience, and facilitating conditions are effective in the decision

to use the systems through the willingness to use ISSs, but the members had no great willingness to use ISSs because they are not well justified about the micro and macro goals of the university ranking systems; The rejection of the effect of social norms on the acceptance of technology shows that the use of new technologies cannot be implemented in a mandatory manner. In fact, according to Razzaghi, Ghalavandi & Hasani's research (2022) in the field of the role of student characteristics, content quality, and knowledge management in using e-learning by e-learning perhaps it can be concluded that if the acceptance and use of information technology by managers in a compulsory manner happens, users resist accepting the technology. Based on the findings of this research, it is expected that the members of the university will enter their new scientific-educational-cultural achievements in these systems, and according to the findings of Abramo & D'Angelo's research (2021), human resource managers should consider the importance of ISSs in the evaluation and development of the university and find strategies appropriate to the criteria of ranking systems in the context of localized cultural issues there for it is appropriate for university administrators to know the organizations easier accesses, equipping hardware, software, and such things are among the basic and strategic priorities of using these ISSs because people considered completing the information in these systems time-consuming and fruitless. Other matters, such as not having an opportunity, the impossibility of access at all times and places, and loyalty to the means of traditional conditions for gathering information, may be some other related reasons. Improving the user quality of ISSs by increasing the number of system languages for users, providing the necessary training and 24-hour account support, and using well-mannered and patient experts to train and accompany members - especially elderly members - in recording information are suggested. On the other hand, because the existing rules for each system are considered cumbersome, accessing these systems' cookies to their personal information is not considered safe and desirable. In the field of behavioral security, information security researchers have frequently studied the performance of secure behaviors in response to threats; for example, Menard, Bott and Crossler (2017) provided constructed security messages that appealed to the intrinsic motivation of individuals rather than fear, as a way to elicit secure responses. They compared the native models in the context of security behaviors and demonstrated that by using data- and individual-focused appeals and providing choices for users, managers may observe greater intention to engage in secure behavior among employees, ensuring the security of users regarding the confidentiality of their personal information and holding training workshops to motivate members to use these systems are suggested. Considering the high impact of user experience on the desire and decision to use these systems is useful for managing the users' positive mental and emotional experiences. Therefore, it can be said that the Planned Behavior theory and the advanced model of the theory of Rational Action were also confirmed in this research as Wieringa, Kannan, Ma, Reutterer, Risselada and Skiera (2021) in their research showed that mere production and provision of information storage and database technologies are not enough for the acceptance and consumption in their target market. As is evident in the findings of this research, some applied behavioral theories that have examined the acceptance of information technology systems and technology in general in all platforms, including "Acceptance and Use of Technology", "Planned Behavior", and "Rational Action", were partially approved. It is necessary to hold orientation meetings to convince members to use ISSs and to provide reports and statistical analysis of information contained in the ISSs to users.

Completing information in these diverse systems is considered time-consuming and

repetitive, so software designed to be user-friendly and with integrated ISSs to manage time and resources optimally is suggested.

Conclusion

In the last decade, the competitive conditions that have increased interest in using International Science Systems (ISSs) for promoting university ranking systems necessitate specific organizational behavior in management for integrating ISSs. If, in this process, the mentioned members do not have much desire to enter fully and comprehensively and update this information, this anti-productive behavior will harm the university's position in the university rankings. Paying attention to the importance of ISSs in the evaluation and development of Iranian universities and finding appropriate strategies for their promotion was the focus of this research. This research examined the necessity of paying attention to ISSs from the perspective of the audience and the user, while previous research focused on the importance of using ISSs using theoretical and survey methods. According to the study in Iranian universities, usefulness, expected effort, experience, and facilitating conditions are effective in the decision to use the systems through the willingness to use ISSs. Despite the relative willingness to use ISSs, there was not much desire. It means desiring to use ISSs will not be the reason for using them. These findings are matched with some research such as Özsungur (2019), Chao (2019), Shkitsa et al. (2020), Li and Zhao (2021), Wu et al. (2021), Salih Ageed et al. (2021), Zhuravlova et al., (2022), Dana et al. (2022), Biranvand and Cheraghi (2022), Lin & Huang (2023). Regarding the relationship between ranking and promotion of members of universities overall, it can be concluded that rankings can be used to drive internal improvement and innovation within universities. By identifying areas where they are lagging behind their peers, institutions can focus on improving those areas, ultimately leading to better outcomes for students and faculty members. Rankings are not the only measure of a university's quality and success, but they can be a useful tool for universities to assess their performance and enhance their reputation, recruitment, and funding opportunities. By carefully analyzing this issue, this research presented the model of ISSs acceptance for Iranian universities. Based on the findings of this research, if the users are sufficiently justified about the importance of using the ISSs, having a useful, effective, and reasonable experience of using these systems, facilities, and facilitating conditions of software and hardware will be provided for them, feeling safe and useful in using these systems .incentive policies are applied for them., understanding the effect of registering their information in increasing the score of their university and country in the ranking systems; the desire to use these systems will likely lead to the operationalization of their decision. Of course, we must be careful that this study has conclusively proven informative, so limitations must be addressed in future research. The study was limited to Iranian universities in the west of Asia. The convenience sample directly limits the generalizability of the results of this study. further international research using a similar design, with larger samples and differing contexts, may provide significant and useful information. In addition, the constructs presented in this research can be tested using more detailed research methods in future projects. Since this study examines specific variables of information registration acceptance, further studies should also include other factors. As this study only examined staff members at Iranian universities, future studies should expand the scope: for example, with other groups of personnel that have a responsibility that requires ISSs learning, such as professors, staff, and new students, and the same group of support staff as well as in the

public and private universities where the results and findings are likely to be useful in the establishment and development of guidelines to enhance ISS acceptance among personnel in the future. This research is useful for other centers at the commercial and service levels. Given the substantial role of Information Storage Systems in organizational information management, it is hoped that the findings of this study may help managers attain an understanding regarding the enhancement of managing Information Storage Systems conditions and its impact on organizational behavior.

Conflict of interest

The author declares no conflicts of interest regarding the publication of this paper.

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Endnotes

1. Spearman Coefficient
2. Significance Level
3. Pearson Coefficient
4. Estimated standard error

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