

*Original Research*

## **The Impact of Database Quality, Reputation, Credibility, and Comprehensiveness on Graduate Students' Information Use: Mediating Role of Empowerment**

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Received: 05 February 2023

Accepted: 06 January 2024

### **Abstract**

This research investigates the impact of database quality, reputation, credibility, and comprehensiveness on graduate students' information use with the mediating role of empowerment at Shahid Chamran University of Ahvaz. The design of the study is descriptive-causal. The research instrument is a questionnaire. Cronbach's test was used to check the reliability of the questionnaire. The results of this test were equal to 0.842, which showed the excellent reliability of the questionnaire. The research population included all graduate students (N= 5137) of the Shahid Chamran University of Ahvaz. Research sample (N=358) graduates were selected based on Krejcie and Morgan's table via random sampling. The results showed that the quality of database resources has a positive and significant effect on the use of database resources among the Shahid Chamran University of Ahvaz graduate students. In addition, the reputation of database resources has a positive and significant effect on the use of database resources. The results also indicated a positive and significant effect of resource validity on the use of information resources. Furthermore, the comprehensiveness of resources positively and significantly affected the graduates' receipt, use, and ability to use resources. Finally, the implications suggest that the quality of information resources on the receipt and use of information affect the comprehensiveness of information resources and the use of resources mediated.

**Keywords:** Accessibility, Databases, Capability, Comprehensiveness, Reputation, Quality, Validity, Graduate Students, Information Use, Shahid Chamran University of Ahvaz.

### **Introduction**

The previous decades have witnessed higher education achieving scientific maturity and research stability despite needing more management facilities and experience. In the past, the scarcity of valid database resources has slowed down scientists doing scientific research. Technology has supported scientific research in various fields with many databases since the 1990s. This has rapidly changed the accessibility of resources (Rafi, Ming & Ahmad, 2019). Databases are one of the most important sources for gathering scientific information and using resources in any university. This is an important indicator of the development of that university (Farzaneh, Amani, Tafraji & Aghaei, 2015). The emergence of valid databases has changed the prospects for speed and accuracy in information. In other words, these databases continuously

create what we know today as the information industry. A database is defined as gathering and organizing data to help researchers and university students do academic research (Rakib, 2020). The database stores information in a format that can be read and accessed by computer storage and has a wide range of applications (Dostdar & Ismaili, 2016). Among the properties of databases that affect the rate of "downloading" and "using" data, the quality of resources, reputation and credibility of resources, as well as the comprehensiveness of topics and formats, is outstanding (Heidari, 2005). In this regard, Kim, Eng, Deering, and Maxfield (1999) address factors such as site content, site design, and attractiveness, profile of authors, sponsors, and creators of the site, accuracy of information, credibility of resources, ease of use, accessibility, links, properties, and documentation. Moreover, they emphasize target audience (i.e., nature of target users, appropriateness to target users), access to contact information and address, user support, and quality of health-related databases. The findings of Zha, Yang, Yan, Liu, and Huang (2018) conducted a study and found that information quality, source credibility, and reputation affected information relevance. Adeniran and Onuoha (2018) indicated a significant positive correlation between information literacy skills and the use of electronic resources. They conclude that using electronic resources improves access to up-to-date information among graduate students in 5 private universities. Kim and Syn (2016) surveyed southwestern Nigeria and found out students were significantly less sensitive to valid and helpful health information with higher sensitivity levels.

Regarding the acceptance of using databases as one of the most critical technologies in the information age, the success of organizations depends on their ability to maintain continuous changes in receiving information in the environment. In modern scientific and technological progress, organizations have achieved successful strategies by using technology and its acceptance. It includes new methods (Ahmed, Abu-Naser, El Talla & Al Shobaki, 2018) since the acceptance and use of technology have been a primary concern for research and practice. Over the past few decades, a series of studies have been conducted for this purpose (Dwivedi, Rana, Jeyaraj, Clement & Williams, 2019). They emphasized that there is a need to use the most comprehensive scales to measure the acceptance of information technology, especially in database validity, which is vital to the level of user satisfaction and system usage. The ideas coming from Venkatesh, Morris, Davis, and Davis (2003) proposed an integrated theory of acceptance and use of technology in data gathering. It is based on the assumption that the four concepts of perceived efficiency, perceived ease of use, social influence, and facilitator conditions are determining factors in users' behavioral goals and data-gathering objectives. This theory also considers the role of four key mediating variables, including gender, age, experience, and intention (Hosseini, Wazirpur Kashmiri & Cheshmeh Sohrabi, 2014).

One of the major tasks of the resource provisioning department of scientific institutes and libraries is to evaluate the validity of databases and their information resources. This is essential since academic researchers constantly review, evaluate, and select databases to spend budget in this field. Researchers must rely on these resources if they have high quality. Despite the huge cost of subscribing to databases by the Shahid Chamran University of Ahvaz, the degree of involvement of graduate students of this university participating in databases is unknown regarding the databases of ScienceDirect, Wiley, Springer, Web of Science, EBSCO, Scopus, SID, Civilica, International Database of Agriculture and Life Sciences. In addition, it is unclear how much information resources they receive and upload in various periods. On the other hand, the qualities of databases, reputation, credibility, and comprehensiveness of these information

resources have affected the rate of receipt and use of these databases.

Furthermore, the extent of graduates' ability in information-seeking skills and the role of mediators/users have affected the receipt and use of retrieved information at the Shahid Chamran University of Ahvaz. Thus, this study examines the researchers' gain and uses of databases shared by Shahid Chamran University and evaluates criteria such as quality, reputation, credibility, and comprehensiveness of information resources. It also studies the impact of these evaluation criteria on the validity of data gathering. Therefore, the research question of the present study asks whether the reputation, credibility, and comprehensiveness of resources impact the rate of graduates receiving and using the data. To answer this research question, the researchers considered it necessary to conduct it.

The questions of the present study are as follows:

1. Does resource quality, Resource reputation, Resource validity, and Resource comprehensiveness of shared databases affect the reception, and use of the resources from these databases?
2. Does the graduates' ability affect the resources they receive and use from shared databases?
3. Does the resource quality of shared databases affect the ability to receive and use the resources from these databases through empowerment?
4. Does resource comprehensiveness of shared databases affect the ability to receive and use the resources from these databases through empowerment?

### **Theoretical Framework and Background**

Resources of databases are large amounts of information stored in a computer system so that they can be easily accessed since a large collection of data, especially for quick search and retrieval, can be stored in an organized manner (Merriam-Webster Dictionary, n.d.). This organized set holds characteristics of communication, community, lack of redundancy, special architecture, and model-based which are managed by a centralized control system (Rouhani Rankouhi, 2017).

The quality of Information gathering can be achieved through accuracy, appropriateness, completeness, relevance, and stability of information (Delone & McLean, 2003). This quality is defined based on the content of the information and the resources from which the users receive the information (Veetil, Ragho & Ashok, 2021). This enables the users to search data successfully and do work reliably (Dewi, Azam & Yusoff, 2019), which is highly regarded for its vital impact on graduates' decision-making accuracy (Zhiwen, Xiaoying, Yujun, Limin & Junxing, 2020).

Among the factors that affect the use of accessible data resources, credibility is significant, and it refers to a person who makes people trust him or her (Oxford Advanced American Dictionary, n. d.). It is a content that includes objective and subjective parts in different formats. Accordingly, the organization and reputation of databases are the primary sources of valid data. Hovland, Janis, and Kelley (1953) define valid resources as gathering users' attention to valid resources as the recipients' perception addresses its value and their degree of confidence to communicate. One of the factors influencing the value of information resources is credibility, which is defined as gathering information for the providers who gain information from valid

databases. The credibility of the resources depends primarily on the authors of the resources they have acquired in the past. The most essential factor in determining the value of a database is its comprehensiveness, which means accuracy, consistency, and validity of databases. Each database management system is responsible for controlling and leading the comprehensiveness and clarity of the database because there may always be factors deviating the resources' comprehensiveness. These factors may be errors in programming and data entry, uncontrolled redundancy, breakdowns, and conflicts of transactions. In case of a lack of control, invalid data may occur (Rouhani Rankouhi, 2017). Graduate students' ability or the skill to use available data may save time and energy when arriving at the research objectives. This ability can be helpful in both public and private sectors. As a result, students' skills can be a purposeful target for seeking information to bridge the knowledge gap regarding the strategies for retrieving, evaluating, organizing, and exchanging information (Stokes, Priharjo & Urquhart, 2021; Hashemian, Gentiakia & Hashemian, 2014).

Parvizrad and Mirzaei (2006) conducted research and revealed that the users paid no attention to the quality rating tools concerned with the quality of gathering information on the Internet that are used to ensure the security of the databases. Osareh and Papi's (2008) findings showed that the features of the audience, the purpose of the website, loading quality, and stability of the structures in academic contexts were at an appropriate level. However, the features of ease of search, graphics, authors' scientific background, and the specific purpose for the information range were moderate, and the content of data resources was low. Bagheri (2010) stated that features like being up-to-date, subject relevance, quality, accessibility of use, speed of retrieval, need for information, clarity of retrieval, fluency in English, familiarity with the database, and motivation affect the quality of resources of databases. Hosseini et al. (2014) concluded that there was a correlation between users' performance, social influence, facilitator conditions, anxiety, and intention affecting the dependent variables of information acceptance and use of information. However, there was no significant correlation between expecting effort, information acceptance, and use. Mehrandasht and Hariri (2015) showed that the frequency of use in the Science Direct, Scopus, and Ovid databases was different. Users adopted electronic resources in these three databases were meager. Shirazi Mehrabad, Sharif Moghadam, Kimiafar, and Azizi (2017) comparatively studied the structural features of various local medicine databases and published articles with Gulliver's indexes. The results showed that in terms of Gulliver's indexes, the rank of the Pubmed foreign database was at the highest level among all the databases.

In contrast, the SID database was ranked second among the databases under investigation. Magiran, Barkat Knowledge Development System, and Medlib were in the following categories. In addition, the local databases still have a long way to go before reaching the Pubmed database. Savolainen (2011) examined the quality and validity of information resources in Internet discussion groups. In the same way, Oye, Lahad, and Rahim (2012) conducted research and proposed that the most significant impact of the expectation theory is related to the ease of perceptual use, integrated acceptance, and the use of information regarding communication technology. Fanoberova and Kuczkowska (2016) emphasized that resource credibility factors affect the use of resources and the users' attitudes. In addition, they concluded that the reliability of databases and users' professionalism positively affect users' motivation to manipulate natural data resources. The relationship between the factors of information quality and users' attitudes toward the availability of resources was not significant. Arshad and Amin

(2018) revealed that e-journals, e-reports, and online references were the sources that were mainly used among graduate students. However, some users did not have sufficient capability and skills in searching information retrieval and could not determine the data quality. The conceptual research model of the present study is as follows.

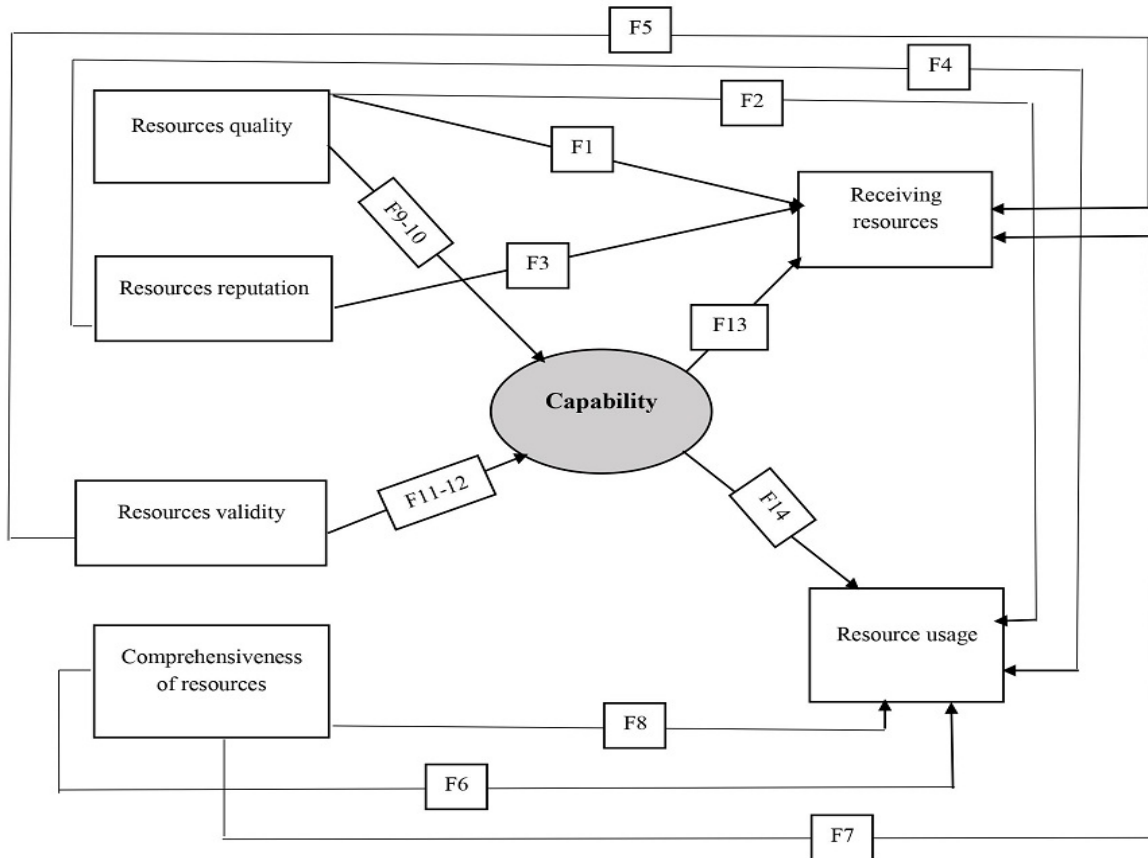


Figure 1: The Conceptual Model of Research

### Materials and Methods

This study's research population comprised all Shahid Chamran University of Ahvaz graduate students. According to the statistics department of this university, the number of these students was 5137 in the academic year 2018-2019. The data collection instrument was a questionnaire by Zha et al. (2018). The subscale of this questionnaire is shown in Table 1. The sampling method used in this study was stratified random sampling. The research sample was selected based on Krejcie and Morgan's (1970) Table. According to this Table, 361 participants were chosen as the research sample. Therefore, 361 questionnaires were distributed among faculties according to the proportion of students and 294 completed questionnaires were returned. The databases used to answer the research questions, including all the English and non-English databases that are located on the website of the Shahid Chamran University of Ahvaz, were examined. These databases include Science Direct, Willie, Springer, Web of Science, EBSCO, Scopus, SID, Civilica, and the International Database of Agriculture and Life Sciences. Finally, the questionnaires were collected and analyzed.

### Evaluation of validity and reliability of structures

Confirmatory factor analysis (CFA) was used to examine the factor load of each marker (index) on each structure to evaluate the graduates' ability to use research models and latent variables of databases. Then, the scores were calculated and analyzed at the significance level of 0.05. Thus, the factor loads that were significant at the 5% level could be considered as the test of the hypotheses to figure out the role of the marker in the formation of the variables under investigation. If it was not significant, it was rejected. On the contrary, if the correlations were significant, the research hypotheses were accepted, and the effectiveness of the variables could be regarded as confirmatory factors. In addition, for each structure, two indices of average variance extracted (AVE) and combined reliability (CR) were calculated to measure the validity and reliability of the structures, respectively. The AVE index shows the percentage of structure variance affected by the markers of that structure. The AVE index was used to measure the validity of a structure that addressed convergent validity. Researchers set a value of 0.5 or higher for the suitability of this index (Fornell & Larcker, 1981). Therefore, according to the AVE index, values higher than 0.5 indicate the appropriate validity of the structure under the study. The reliability of structures was estimated via the CR method. In this case, if the CR value is more significant than 0.6 for structures, it shows acceptable reliability, and eventually, its value is acceptable for the related structure. Thus, the more excellent reliability of that structure (Kalantari, 2009; Bagozzi & Yi, 1988) could be a sufficient marker of that structure. Furthermore, Cronbach's alpha ( $\alpha$ ) was used to evaluate the reliability of all the structures.

Table 1 depicts the selected resource markers for measuring the model structures as having the necessary accuracy because the factor loads are all more than 0.5 and are significant at the significance level, which is less than 0.01. For each marker, Cronbach's alpha was calculated, and they were met more than 0.7. This indicates the high reliability of the resource markers. The value of the average variance (AVE) indices was more than 0.5, and the compound reliability index was more than 0.6 for all markers. Therefore, each model construct has the desired validity and reliability to measure research variables. As a result, the structural model of the research is fitted and used to test the related hypotheses. Moreover, the content validity of the questionnaire was confirmed by two faculty members who were experts in information science at the Islamic Azad University of Ahvaz. The criteria for choosing these two people were that they were experts in the subject of study.

Table 1

*Standardized Factor Load Values and Validity and Reliability Indices of Structures*

Index (Markers of Resources)	Critical Load	Factor Load	Item	Cronbach's Alpha	C.R.	AVE
Capability	4	0.62		0.768	0.972	0.860
	3	0.85	11.362			
	2	0.90	11.448			
	1	0.75	10.463			
Research Quality	10	0.67		0.731	0.925	0.864
	9	0.78	12.610			
	8	0.76	11.594			
	7	0.80	12.997			
	6	0.96	10.420			

Index (Markers of Resources)	Critical Load	Factor Load	Item	Cronbach's Alpha	C.R.	AVE
	5	0.72	11.806			
Reputation	13			0.711	0.885	0.945
	12	0.55	12.088			
	11	0.73	14.418			
Validity	15	0.77		0.749	0.937	0.811
	14	0.73	11.856			
Comprehensiveness	20	0.61		0.698	0.896	0.815
	19	0.67	9.762			
	18	0.83	8.560			
	17	0.89	8.709			
	16	0.68	9.876			
Download	24	0.79		0.735	0.954	0.742
	23	0.84	15.479			
	22	0.60	12.102			
	21	0.71	13.583			
Using	28	0.59		0.653	0.914	0.893
	27	0.53	8.506			
	26	0.94	11.574			
	25	0.57	8.980			

### Results

The descriptive statistics of the research variables were also calculated. Table 2 indicates the descriptive indices of research variables, including the coefficient of Skewness and kurtosis, in an acceptable range. Thus, the data shows the normality of score distribution. Furthermore, the mean of all variables in the questionnaire is between 2.3 and 3.66, which indicates the acceptable mean score of the variables.

Table 2  
Descriptive Indices of Research Variables

Variable	Mean	Standard deviation (SD)	Skewness	Kurtosis
Database quality	2.832	0.877	-0.279	0.755
Database reputation	2.655	0.776	-0.316	0.442
Database Validity	2.613	0.925	-0.509	0.866
Comprehensive databases	2.590	0.884	-0.224	0.318
Students' ability	2.779	0.807	-0.116	0.286
Get information from databases	2.582	0.775	-0.637	0.485
Use of database information	2.618	0.722	-0.556	0.746

### Structural equations

The conceptual model of the research is explained based on the structural equations through Amos software, a tool used to model structural equations. Structural equation models combine path models or structural relationships and confirmatory factor models (i.e., measurement relationships). In these models, the phenomena with one-way or two-way relationships are displayed, and the relations can be observed based on their categories (Ghasemi, 2010). According to the theoretical literature, this study has a conceptual model, and the researchers conducted this study to meet the final confirmation of this model. Therefore, a confirmatory factor analysis is used to explain the research variables in developing a model for measuring independent and dependent variables. Moreover, it enabled the researchers to define the variables and propose the structural equation model. This equation model is shown in Figure 2.

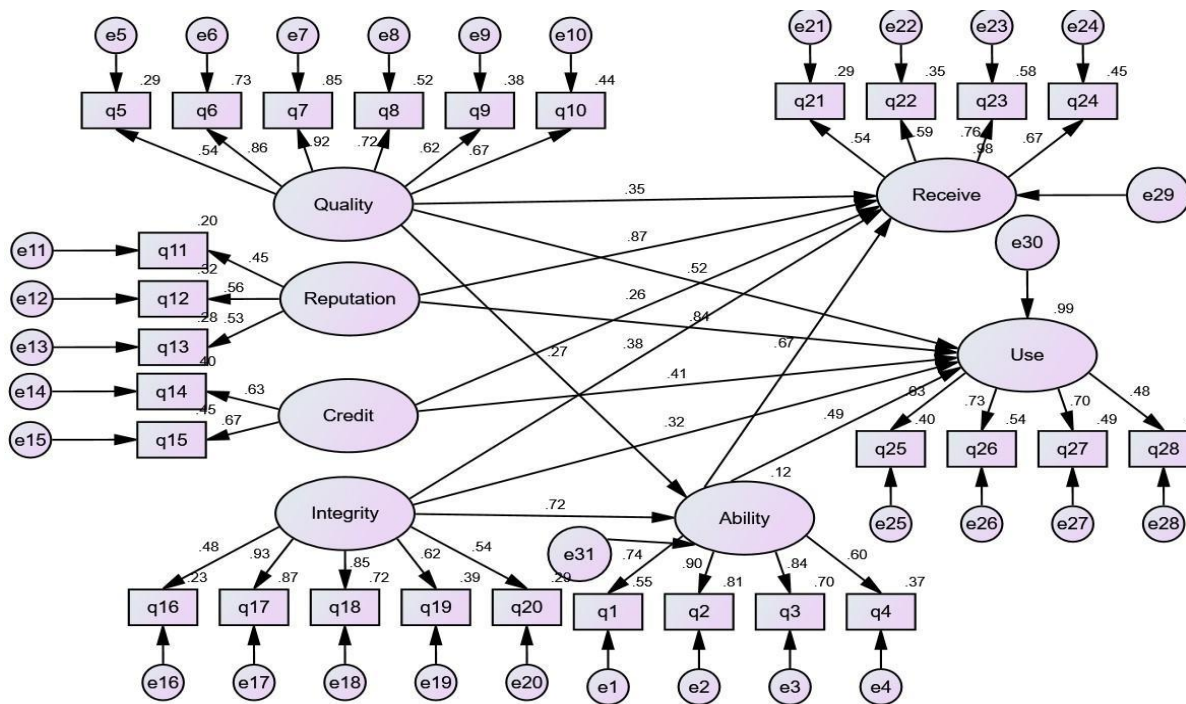


Figure 2. Structural Equation Model of Research (Estimation of Standard)

The structural equation model met the acceptability of the measurement models of the variables in the present study. Then, the researchers estimated and tested the conceptual research model through structural equation modeling since this model can analyze the relationships of variables simultaneously instead of examining the variables in pairs or separately. The SEM approach was used to test the hypotheses by examining the relationships between observed and latent variables (Schumacher-Randall E, 2009).

The research questions were tested by determining the structural relationships between conceptual variables in the provided model. As seen in Figure 2, the structural model consists of seven variables. These variables include quality, reputation, credit, and integrity as independent variables, as well as variables such as ability and Receiver as intermediate dependent variables and variable use as the final variable. In addition, fit indices have been calculated to determine the appropriateness of structural models of research. According to Table 3, the indicators reveal that the structural model of the study meets a good fit; therefore, the research questions can be tested based on the obtained regression coefficients.

Table 3  
Fit Indices of Structural Research Models (Fit Index)

Index	X <sup>2</sup> /df	AGFI	GFI	GFI	NFI	TLI	IFI	PCFI	PNFI	PRATIO	RMSEA
Proposed Criterion	>3	0.9<	0.9<	0.9<	0.9<	0.9<	0.9<	0.5<	0.5<	0.5<	0.8>
Structural Model	2.542	0.920	0.984	0.919	0.982	0.974	0.922	0.553	0.520	0.894	0.013

Table 4 indicates that the critical ratio of the research hypotheses is not between -1.96 and +1.96, which could be confirmed at a significant level.

Table 4  
Regression Coefficients and Their Significance Level

Correlation	Standard coefficient	Critical lineage	The result of question
Resource quality → Receipt of resources	0.035	7.893	Confirmation
Resource quality → Resource usage	0.52	11.883	Confirmation
Resource reputation → Receipt of resources	0.87	18.752	Confirmation
Resource reputation → Resource usage	0.84	16.244	Confirmation
Resource validity → Receipt of resources	0.26	3.826	Confirmation
Resource validity → Resource usage	0.41	9.845	Confirmation
Comprehensiveness of resources → Receiving resources	0.38	8.259	Confirmation
Comprehensiveness of resources → Use of resources	0.32	7.458	Confirmation
Capability → Receive resources	0.67	12.625	Confirmation
Capability → Resource usage	0.49	10.714	Confirmation

Table 5 shows the mediator hypotheses' significance levels at  $p < 0.005$ . Since they are not more significant than the significance level, it is concluded that these hypotheses are confirmed.

Table 5  
Bootstrap Method to Determine the Mediating Role

Correlation	Indirect effect of the relationship	Level of significance	Confidence level 95%		Result of Questions
			Upper Bound	Lower Bound	
Resource quality → Ability → receive resources	0.245	0.002	0.852	0.217	Confirmation
Resource quality → Ability → use resources	0.212	0.000	0.638	0.195	Confirmation
Comprehensiveness → Ability → Received	0.153	0.012	0.543	0.172	Confirmation
Comprehensiveness of resources → Ability → use resources	0.197	0.005	0.584	0.186	Confirmation

### Discussion

This study aimed to investigate the effect of quality, reputation, credibility, and comprehensiveness of databases on graduate students' receiving and using information mediating the role of empowerment in Shahid Chamran University of Ahvaz in southwest Iran. The results of the questions of this study are as follows.

The first question of the research was the quality, reputation, validity, resource comprehensiveness, and shared databases that affect the reception and use of the resources from these databases. The result showed that the content of resources was insignificant and negative regarding information quality and graduates' attitudes towards using information. As a result, the quality of information resources plays an essential role in obtaining information. These findings are aligned with the research results reported by Parvizrad and Mirzaei (2006), Bagheri (2010), and Zha et al. (2018). Also, the quality of information resources positively and significantly affects their use. In addition, information quality can be achieved through accuracy, completeness, relevance, and stability. The information must be at a high level of data retrieval validity for gathering data. This can facilitate factors involved in search features in terms of the validity of output and input. The present study found that the quality and validity of information resources on the use of these resources made a positive attitude among the Iranian graduates. This result is consistent with the research results found by Osareh and Papi (2008), Savolainen (2011), and Fanoberova, A. & Kuczkowska (2016).

In continuation of the first question, the reputation of databases has had a positive and significant effect on the participants' reception of resources. Popular databases impact the participants' ability to gather data when they search for a subject matter expert or authors' names on electronic resources websites in sharing information resources. Therefore, the results showed a high reputation of information sources used by the participants. Findings concerned with the third question are in line with the results of Arshad and Amin (2018) and Zha et al. (2018). On the other hand, participants had a positive and significant effect on the reputation of information resources using these sources. Results showed that the credibility of authors, organizations, or publishers are the main sources that encourage users to search databases. The authors may provide the users with information resources, and the researchers can comment on the reputation of the source based on essential points. However, the graduates must pay close attention to the mentioned cases and look at these resources of databases. These results indicate that the high reputation of information resources affects the frequency of information use. This matches the findings of Hosseini et al. (2014). Also, this question deals with a positive and significant effect of the validity of database resources on the receipt of resources. The specific publishers have been searched if they are specialists in print publications, notify the subject matter field of study in question, and determine the validity of the print source. This is because they give some tips about resource information usually found on the front page of the database sites.

Furthermore, the journal title, issue number, year of publication, and the database logo that can be seen on the front page effectively gather participants' attention to search data. For searching databases in the case of the dissertation, the name of the author, title, field, name of the university, name of the supervisors and advisors, or the year of publication, the code of the dissertation is effective in data validity. Thus, the results indicate that resources are highly credible when searching for data. These results are consistent with the studies by Mehrandasht

and Hariri (2015) and Zha et al. (2018). The positive and significant effect of the validity of information sources on the use of these resources among the graduates.

Regarding the credibility of the resource, recipients of information can be affected by some factors, including data validity, which is considered the extent to which the value of the resource is understood and the extent to which the recipient pays attention to those resources. Furthermore, the resource's credibility depends on the extent to which the resources are acceptable, complete, and credible for the users. The results showed that the resources in use were highly reliable. These results agree with Bagheri (2010), Savolainen (2011), and Fanoberova & Kuczkowska (2016). Also, this study indicated a positive and significant effect of the comprehensiveness of information sources on the users' reception of information. Comprehensiveness points to information integrity. Since obtaining knowledge in the problem-solving process becomes critical, the users must cope with unusual and unfamiliar situations to get detailed information, which requires data comprehensiveness. Accordingly, the results of the present study indicate the comprehensiveness of information resources is high and has led to the optimal receipt of information among the graduate participants. This conclusion aligns with the studies conducted by Ovi, Lahad, and Rahim (2012). Finally, these questions also showed a positive and significant effect of the comprehensiveness of information resources on the practical use of the resources. In this regard, if the information is rich and detailed, it can attract and direct a wide range of users and lead them to much acceptance since comprehensiveness plays an important role in accepting new data. Thus, the results showed that the high comprehensiveness of information resources can affect the practical use of the data. This is consistent with the studies conducted by Zha et al. (2018).

The second question of the research was whether graduates' ability affects the receiving and use of shared databases. The results showed a positive and significant effect on student's ability to receive information resources. Participants' capabilities to access the most helpful information in the data pool should be crucial. Those participants who have acquired this skill will be able to receive appropriate and required information. Results showed that students' ability affects the reception of information resources. This matches the studies conducted by Zha et al. (2018). Also, it has a positive and significant effect on students' ability on resource use. The learners who can search and use the data expertly may save time and energy in doing the tasks. This question deals with the students' skills in some search and retrieval practices and using retrieved information that is effective in resource use. The ease of access to resources is a great merit for more users who use these databases daily. The results showed that students with high abilities in using data resources are more practical than students with lower abilities in using information resources. The results of this research question are consistent with those of Bagheri (2010), Ghavam (2011), Nazari et al. (2012), and Adeniran and Onoha (2018).

The third question of the research was whether the resource quality of shared databases affects the ability to receive and use the resources of these databases through empowerment. This question is significantly confirmed and revealed that the databases of Shahid Chamran University had the quality of information resources. Therefore, the students are capable of using information. Concerning this, informing the users on accessing appropriate database links can lead students to use the available databases and resources. The problems that may affect this capability are slow internet, disconnection of the internet, inactive data links, and long time for

processing data that can cause barriers to the capabilities of the users. These results are consistent with Parvizrad and Mirzaei (2006) and Bagheri (2010). Following these questions, the results showed that mediation capability impacts the quality of information resources regarding the users of these resources. Information retrieval needs users' skills, including knowledge of the English language and research procedures and methodology. They should also know the information required to acquire these skills for successful searches that lead to information retrieval. Graduate students of Shahid Chamran, the University of Ahvaz, should obtain these skills since the lack of these mediating factors may affect students' success in searching and experiencing effective retrieval. For this reason, students' general ability as a mediator between users and information systems plays an important role in database users' databases. These results align with those of Osareh and Papi (2008) and Savolainen (2011).

The fourth question was whether the resource comprehensiveness of shared databases affects the ability to receive and use the resources from these databases through empowerment. This study confirmed the mediating role of comprehensiveness on the user's abilities of information reception. Understanding the data and reinterpretations of data can be a factor in students' ability to use databases. It can also be a mediating variable between databases and users that facilitates data gathering. Results concluded that the role of students' ability and skill, especially in information retrieval and use of information resources, was important. This conclusion is matched with the findings proposed by Arshad and Amin (2018). Also, the effect of a mediating role of capability on the use of information among graduates has been confirmed. In other words, the users were able to use the comprehensiveness of information resources and to use information as one of the influential factors in better use of information with less time spent. Results indicated that if users have the necessary skills, they will be better able to retrieve and use information resources. This result agrees with Ovi, Lahad, and Rahim (2012).

### **Conclusion**

This research showed that the quality of information resources in the database yielded a positive and significant effect on the student's receipt of resources. The data quality criteria in the database include author identity, accuracy, updated data, and display of authors' profiles. The study results showed that databases have gained widespread acceptance and a positive attitude toward the quality of information among Iranian students in such environments. This leads to extensive information and online browsing to gain resources. The present study may propose the following suggestions based on the results of the survey:

There is a need to prepare educational booklets, including instructions for data gathering with related pictures and descriptions to learn better. Brochures or promotional messages can be helpful for database applications. The university facilities can be useful in helping users gather data concerning the effective use of technology. Training workshops for researchers and graduate students are necessary since they can learn the practical use of databases. Officials of the university should increase the level of coverage of purchased information resources in databases as much as possible and buy more resources to boost users' comprehensiveness.

### **Reference**

Adeniran, P. & Onuoha, U. (2018). Influence of information literacy skills on postgraduate students' use of electronic resources in private university libraries in South-West, Nigeria. *Communications and Network*, 10(4), 164-179. <https://doi.org/10.4236/cn.2018.104014>

- Ahmed, A. A., Abu-Naser, S. S., El Talla, S. A. & Al Shobaki, M. J. (2018). The impact of information technology used on the nature of administrators work at Al-Azhar University in Gaza. *International Journal of Academic Information Systems Research*, 2(6), 1-20. Retrieved from <http://ijeais.org/wp-content/uploads/2018/06/IJAISR180601.pdf>
- Arshad, A. & Amin, K. (2018). Academic scientists' scholarly use of information resources in the digital environment. *Global Knowledge. Memory and Communication*, 67(6/7), 467-483. <https://doi.org/10.1108/GKMC-05-2018-0044>
- Bagheri, N. (2010). *Factors affecting the acceptance and application of electronic databases in educational and research activities of Shiraz University faculty members*. Unpublished Master's Thesis in library and information science. Tehran: University of Allameh Tabatabai. [in Persian]
- Bagozzi, R. P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74-94. <https://doi.org/10.1007/BF02723327>
- DeLone, W. H. & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9-30. <https://doi.org/10.1080/07421222.2003.11045748>
- Dewi, N., Azam, S. & Yusoff, S. (2019). Factors influencing the information quality of local government financial statements and financial accountability. *Management Science Letters*, 9(9), 1373-1384. <http://dx.doi.org/10.5267/j.msl.2019.5.013>
- Dostdar, M. & Ismaili, F. (2016). Creation and promotion of the Iranian Fisheries Research Institute Laboratories Database. *Scientific Journal of Iranian Fisheries*, 25(3), 149-153. <http://dx.doi.org/10.22092/ISFJ.2017.110266> or [20.1001.1.10261354.1395.25.3.12.6](https://doi.org/10.1001.1.10261354.1395.25.3.12.6) [in Persian]
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M. & Williams, M. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a Revised Theoretical Model. *Information Systems Frontiers*, 21, 719-734. <https://doi.org/10.1007/s10796-017-9774-y>
- Fanoberova, A. & Kuczkowska, H. (2016). Effects of source credibility and information quality on attitudes and purchase intentions of apparel products: A quantitative study of online shopping among consumers in Sweden. Unpublished Master's Thesis, Umeå school of Business and Economics University.
- Farzaneh, I., Amani, F., Tafaraji, R. & Aghaei, M. H. (2015). Awareness of Ardabil medical students in the use of electronic information resources. *Research in Medical Education*, 7(2), 61-68. [10.18869/acadpub.rme.7.2.61](https://doi.org/10.18869/acadpub.rme.7.2.61) [in Persian]
- Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.2307/3151312>
- Ghasemi, P. A., Jahanbazi, P., Enteshari, S., Malekpoor, F. & Hamed, B. (2010). Antimicrobial activity of some Iranian medicinal plants. *Archives of Biological Sciences*, 62(3), 633-641. <https://doi.org/10.2298/ABS1003633G>
- Ghavam, H. (2011). Examining the information-seeking skills of Amirkabir University students in the academic year 89-90. *Science*, 4(15), 67-75. Retrieved from [https://journals.iau.ir/article\\_520569\\_68707a6fbbf5e17f0b53fee86219a126.pdf](https://journals.iau.ir/article_520569_68707a6fbbf5e17f0b53fee86219a126.pdf) [in Persian]

- Hashemian, S., Janatiya, M. & Hashemian, A. R. (2014). Information retrieval skills in online databases in the National Digital Library of Medicine among Isfahan University of Medical Sciences residents. *Health Information Management*, 10(1), 101-108. Retrieved from [https://him.mui.ac.ir/article\\_12236\\_c6ec6721bf190d2ec54ac94cdebd46bb.pdf?lang=en](https://him.mui.ac.ir/article_12236_c6ec6721bf190d2ec54ac94cdebd46bb.pdf?lang=en) [in Persian]
- Heidari, G. (2005). Measures for evaluating electronic resources with emphasis on websites. *Iranian Journal of Information Processing & Management*, 20(3), 17-23. Retrieved from [https://jipm.irandoc.ac.ir/article\\_698655\\_1b8ec45bbc7a1a93cc6295319c287226.pdf?lang=en](https://jipm.irandoc.ac.ir/article_698655_1b8ec45bbc7a1a93cc6295319c287226.pdf?lang=en) [in Persian]
- Hosseini, N., Vazirpour Kashmiri, M. & Cheshmeh Sohrabi, M. (2014). The Acceptance and use of Latin online databases among faculty members of Kermanshah universities based on the Unified Theory of Acceptance and Use of Technology (UTAUT). *Quarterly Journal of Science (Library and Information Science and Information Technology)*, 7(27), 43-54. Retrieved from <https://ensani.ir/file/download/article/64803a755d491-10672-1400-124.pdf> [in Persian]
- Hovland, C. I., Janis, I. L. & Kelley, H. H. (1953). *Communication and persuasion: Psychological studies of opinion change*. New Haven, CT: Yale University Press.
- Kalantari, R. (2009). Techniques for classroom interaction. *International Journal of Language Studies*, 3(4), 409-452. Retrieved from <https://drive.google.com/file/d/19zxHuknoBz4r03PSiV28EEPLIosfAfeB/view> [in Persian]
- Kim, P., Eng, T. R., Deering, M. J., & Maxfield, A. (1999). Published criteria for evaluating health related websites: Review. *BMJ (Clinical research ed.)*, 318(7184), 647-649. <https://doi.org/10.1136/bmj.318.7184.647>
- Kim, S. U. & Syn, S. Y. (2016). Credibility and usefulness of health information on Facebook: a survey study with U.S. college students. *Information Research*, 21(4), n4. Retrieved from <https://informationr.net/ir/21-4/paper727.html>
- Krejcie, R. V. & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Mehrandasht, A. & Hariri, N. (2015). Cost-benefit analysis of databases Science Direct, Scopus, and Ovid in Qom University of Medical Sciences Based on SAMAA index (evaluation of electronic resources), Iran. *Qom University of Medical Sciences Journal*, 9(12), 58-64. [20.1001.1.17357799.1394.9.12.8.3](https://doi.org/10.17357799.1394.9.12.8.3) [in Persian]
- Merriam-Webster Dictionary (n.d.). Retrieved from <https://www.merriam-webster.com/>
- Schumacher, R. E. & Lomex, R. J. (2009). *An introduction to structural equation modeling*. Translated by Vahid Ghasemi. Jame-e-Shenasan: Tehran. [in Persian]
- Nazari, F., Khosravi, F. & Bab al-Hawaji, F. (2012). The relationship between the understanding of the characteristics of continuous databases and their acceptance by female faculty members. *Women and Culture*, 4(13), 170-95. Retrieved from [https://journals.iau.ir/article\\_523100\\_b6d8ed3e8cb70a90f1d7118e9e71efcb.pdf](https://journals.iau.ir/article_523100_b6d8ed3e8cb70a90f1d7118e9e71efcb.pdf) [in Persian]

- Osareh, F. & Papi, Z. (2008). Quality assessment of library website of Iranian State Universities. *Iranian Journal of Information Processing & Management*, 23(4), 35-69. Retrieved from [https://jipm.irandoc.ac.ir/article\\_698530\\_066ee17b9a9c79b8ad8f531dd5b97a7d.pdf?lang=en](https://jipm.irandoc.ac.ir/article_698530_066ee17b9a9c79b8ad8f531dd5b97a7d.pdf?lang=en) [in Persian]
- Oxford Advanced American Dictionary for Learners of English (n. d.). Retrieved from <https://www.amazon.com/Advanced-American-Dictionary-learners-English/dp/0194399664>
- Oye, N. D., Iahad, A. & Rahim, A.B. (2012). Acceptance and usage of ICT by university academicians using UTAUT model: A case study of University of Port Harcourt, Nigeria. *Journal of Emerging Trends in Computing and Information Sciences*, 3(1), 81-89.
- Parvizrad, P. & Mirzaei, S. (2006). Health-related website evaluation. *Health Information Management*, 3(1), 5-11. Retrieved from [https://him.mui.ac.ir/article\\_10883\\_031f1e7fe7288f8016fd2f9a598d32eb.pdf?lang=en](https://him.mui.ac.ir/article_10883_031f1e7fe7288f8016fd2f9a598d32eb.pdf?lang=en) [in Persian]
- Rafi, M., Ming, Z. J. & Ahmad, K. (2019). Evaluating the impact of digital library database resources on academic research productivity. *Information Discovery and Delivery*, 47(1), 42-52. <https://doi.org/10.1108/IDD-07-2018-0025>
- Rakib, Md. P. I. (2020). Advantages of using database approach in a medium student organization in a university: A study on UIU MIS forum. Management Information System, School of Business and Economics United International University. Retrieved from <http://dspace.uiu.ac.bd/handle/52243/1745>
- Rouhani Rankouhi, S. M.T. (2017). *Basic concepts of databases*. (4<sup>th</sup> Ed.). Tehran: Jelveh. [in Persian]
- Savolainen, R. (2011). Judging the quality and credibility of information in internet discussion forums. *Journal of the American Society for Information Science and Technology*, 62(7), 1243-1256. <https://doi.org/10.1002/asi.21546>
- Shirazi Mehrabad, M., Sharif Moghadam, H., Kimiafar, K. & Azizi, A. A. (2017). A comparative study of structural features of medical bibliographic databases: MedLib, Barakat Knowledge Network System, Irandoc, SID, Magiran, and PubMed based on Gulliver criteria. *Journal of University Paramedical School Tehran Medical Sciences (Payavard Salamat)*, 11(4), 450-459. Retrieved from <https://payavard.tums.ac.ir/article-1-6351-en.pdf> [in Persian]
- Stokes, P., Priharjo, R. & Urquhart, C. (2021). Validation of the information-seeking behavior of nursing students confirms most profiles but also indicates desirable changes for information literacy support. *Journal of Documentation*, 77(3), 680-702. <https://doi.org/10.1108/JD-09-2020-0158>
- Veetil, P. C., Raghu, P. T. & Ashok, A. (2021). Information quality, adoption of climate-smart varieties and their economic impact in flood-risk areas. *Environment and Development Economics*, 26(1), 45-68. <https://doi.org/10.1017/S1355770X20000212>
- Venkatesh, V., Morris, M. G., Davis, G. B. & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>

- Zha, X., Yang, H., Yan, Y., Liu, K. & Huang, C. (2018). Exploring the effect of social media information quality, source credibility and reputation on informational fit-to-task: Moderating role of focused immersion. *Computers in Human Behavior*, 79, 227-237. <https://doi.org/10.1016/j.chb.2017.10.038>
- Zhiwen, Z., Xiaoying, Y., Yujun, X., Limin, G. & Junxing, L. (2020). Supply chain logistics information quality evaluation from a just-in-time perspective. *IEEE Access*, 8, 105728-105743. <https://doi.org/1109/ACCESS.2020.2999720>