

## **Library online databases quality among academic members in Malaysia**

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**Abstract:** Library online databases' quality has long been debated in the literature. However, only a few studies has touched specifically on the quality of library online databases among academicians in Malaysia. The major objective of this research is to evaluate the quality of library online databases. This study used survey questionnaire to collect the data. SPSS was used to analyze the data. The results showed that the library online databases' quality are important and impact the academicians in their work.

**Keywords:** Library online databases, information quality, system quality, service quality.

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### **1. Background**

Subscription library databases have always become a major concern among libraries in Malaysia. In fact it becomes an increasing important component for acquisition department in libraries. They increased the academic members' research productivity, output and also increased university status (Egberongbe, 2011; Noh, 2012; Razilan, Amzari, & Safawi, 2013; Razilan & Diljit, 2012; Sharma, 2009). Thus, information and system and service quality of library online databases are essential to a successful research productivity of academic members in Malaysia. . The results would be useful to researchers who are involved in library online database quality.

Academic resources for libraries such as library online databases have become essential in supporting the academic activities of higher education by establishing, maintaining and promoting the Information services anywhere and anytime. Increasing figures of academic journals and books are made reachable via online platforms either by publishers or online aggregators. As estimated, many academic libraries in Malaysia are migrating from developing and maintaining conventional collections to managing electronic resources, to provide better access to academic contents among library users. Unquestionably, excellent features of online platforms have successfully contributed towards resource optimization in higher education institutions. Moreover, these platforms are fully equipped through automatic recordings of logins, searches and full-text downloads to allow qualitative valuation of electronic databases. Other plugins and applications were installed by libraries to manage remote access to e-resources that successfully lead to realization of digital library component in academic institutions.

While access to scholarly contents has been improved tremendously, libraries are facing with many uncertainties in managing e-resources. These include ownership issues, access control, access rights, licensing policies, copyright restrictions and most importantly, pricing models and schemes. Major publishers are imposing on Big deal packages that provide access to greater number of journal titles directly from publishers' platforms. Apparently, Big deal packages have become increasingly serious problems due to its inflexibility to cater libraries in numerous scales and focuses. As library budgets have fallen relatively, libraries are facing huge challenges to maintain subscriptions to increasing subscription cost of Library online databases.

Most of online databases' pricing have increased yearly which become a burden to the universities (Samaravickrama & Samaradiwakara, 2014; Kaur & Mahajan, 2012). Universities are encouraged to enhance their own budget, maximise usage and justify the impact. Thus, the role of academic members and libraries in achieving this goal cannot be denied. Academic members have to provide the standard and high quality research to achieve this goal. Libraries also have to collaborate with the academic members in providing the recent and relevant resources to be a research university. It is essential for the academic libraries to survey on the influencing attributes and impact of the online databases which are subscribed by the libraries. This research

investigates the quality of library online databases plays important role in the satisfaction of using library online databases among academicians in Malaysia.

## **2. Methodology**

The present study employed a quantitative research approach. Data collection targeted academic members in Malaysian universities. Respondents were asked to complete a survey questionnaire and participation was voluntary. Participants were briefed on the aim of this study and on average, each one took around 10 min to complete the questionnaire. In total, 43 responses were obtained and two invalid questionnaires were excluded from the analysis because they contained missing responses, so to avoid biased statistical results, these were eliminated for further analysis. In this section, we will explain in details about the instrument used in this research. The instrument included 7-point Likert-type scales for measuring these variables. Statistical analyses included descriptive and inferential statistics, and focused on Pearson's correlation analysis.

The total target population consisted of academicians of three universities in Malaysia. The participants of this research were academic members in three public universities in Malaysia which are Universiti Malaya (UM), Universiti Teknologi Mara (UiTM) and International Islamic University (IIUM). However, it is not possible to take all the population. The sample is from Engineering and Science Faculty. These faculties are chosen as it offers strategic field nowadays. About 41 samples are chosen for this research.

## **3. Data analysis**

The data in this research was analysed using the statistical package for the social sciences (SPSS). The descriptive statistics (means and standard deviations) and the Pearson correlational analysis of the key variables are presented.

In the aspect of information quality assessment, respondents indicates that the library online databases met their expectations. All the information quality attributes namely completeness, detailed, accuracy, timeliness, reliability and appropriateness, usefulness, relevancy, consistency and sufficiency were rated highly by the respondents.

This is supported by other studies which regarded information quality as a very important aspect in accessing information about Islam. Thus, it is important to get the correct information from the right sources. The study on information quality in the internet on Hadith by Karim & Hazmi (2005) for example, indicated that almost all participants have referred to the Internet to get information about Hadith. The users need to be made aware of the importance of getting the correct information about Hadith and the importance of evaluating the quality of any Hadith before consuming the information.

Trustworthy information also is also important in the healthcare aspect, as a study by Kim (2011) who studied about collected from 219 Chinese university students who are currently using, or have used, the health information services available on the internet.

Internet experience affects process quality, but it has no direct relation to outcome quality (Kim, 2010). A study by Fosso Wamba, Akter, Trinchera, & De Bourmont (2018) suggest that information quality in BDA reflects four significant dimensions: completeness, currency, format and accuracy. The overall information quality has significant, positive impact on firm performance which is mediated by business value (e.g. transactional, strategic and transformational) and user satisfaction.

Table 1: Mean and Standard deviation of information Quality

Item Statement	Mean	Std. deviation
The library online databases provide complete information.	5.683	0.879
The library online databases provide detailed information.	5.683	1.128
The library online databases provide accurate information.	5.659	1.132
The library online databases provide timely information.	5.659	1.153
The library online databases provide reliable information.	5.707	1.270
The library online databases provide information in appropriate format	5.683	0.986
The library online databases provide useful information.	5.927	1.010
The library online databases provide relevant information.	5.927	0.877
The library online databases provide consistent information.	5.902	0.664
The library online databases provide sufficient information.	5.780	0.759
Average Mean and standard deviation	5.761	0.986

Table 1 presents the mean and standard deviation for each variable of information quality. Respondent were asked to show their view in the aspect of library online database quality, measured on a seven-point likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). the highest score of information quality is score 5.927 out of 7.0 points. Which indicate the perspectives' of respondents on information quality library online database. This is supported by the study on information quality of library portal by Mohamad Noorman Masrek Adnan Jamaludin Sobariah Awang Mukhtar (2010). The study had indicated that the library portal met their expectations. All the information quality attributes, namely completeness, comprehensiveness, accuracy, timeliness, reliability and appropriateness of format were rated highly by users.

The average mean score for information quality in the current study was 5.761 out of 7.0 points with standard deviations of 0.986 which indicate that majority of the respondents regarding the information quality of library online databases is high.

In terms of system quality assessment, respondents had indicated that the library online databases met their expectations. All the system quality attributes namely appropriate style of design, easy navigation, fast response, fast transaction, can be used anytime, easy use, up and running and user friendly were rated highly by the users.

The research from Delone & McLean (2003), shown that the system quality has a positive relationship to its user satisfaction. It indicates that the failure of an information system may be due to the inability of an information systems meet the user expectations. Good quality of library online databases will have a positive relationship to the user satisfaction. Not only the user expect the databases to give fast response, fast transaction but also its user friendly quality easy navigation also very important to the users. Good system quality shows the size of the information systems that used. The good system quality will provide pleasure for the user as it can aid the user in doing the job efficiently.

Table 2: Mean and Standard deviation of System Quality

Item Statement	Mean	Std. deviation
The library online databases have an appropriate style of design.	5.439	1.026
The library online databases have an easy navigation to information.	5.220	1.370
The library online databases have fast response	5.366	1.157
The library online databases have fast transaction processing	5.317	1.128
The library online databases can be used anytime.	5.585	1.161
The library online databases are easy to use.	5.390	1.302
The library online databases are always up-and running as necessary.	5.463	1.002
The library online databases are user friendly	5.122	1.345
Average Mean and Standard Deviation	5.363	1.186

Table 2 presents the mean and standard deviation for each variable of system quality. The respondents agreed that library online database can be used anytime. The result shows the average mean score of 5.363 with a standard deviation of 1.186, indicating that the majority of academic staffs agreed that the library online databases offer good system quality.

Table 3: Mean and Standard deviation of Service Quality

Item Statement	Mean	Std. deviation
The library online databases meet the needs of the users	5.659	0.883
The library online databases gives the best interests to the users	5.634	0.888
The library online databases provides immediate services to users	5.634	0.799
The library online databases provides and prompt responses to users	5.463	0.977
The library online databases provide personalized services to users	5.000	1.245
The library online databases understand to the user's specific needs (empathy)	4.976	1.294
The library online databases insists on error –free records	4.829	0.919
The library online databases tools are trustworthy (assurance)	5.366	1.337
Average Mean and Standard Deviation	5.320	1.043

In terms of service quality assessment, respondents had indicated that the library online databases met their expectations. All the system quality attributes namely appropriate, meet the needs of the user, give best interest, immediate services, prompt response, personalized services, empathy, error free record and trustworthy were rated highly by the users.

Among the three quality-related constructs, service quality had the strongest total effect on perceived net benefits and intention to reuse (Lwoga, 2013). Compared with system quality, information quality had the largest effect on user satisfaction. It is thus important for librarians to consider all these factors for effective adoption of library 4.0 projects in research and academic institutions.

Table 3 presents the mean and standard deviation for each variable of service quality. The respondents agreed that library online database meet the needs of the users. The result shows the average mean score of 5.320 with a standard deviation of 0.649, indicating that the majority of academic staffs agreed that the service quality of library online databases offer good service quality.

Table 4: Mean and Standard deviation of satisfaction

Item Statement	Mean	Std. deviation
I am very satisfied with the library online databases performance.	5.366	0.859
I am very pleased with the experience of using the library online databases.	5.585	0.921
I feel contented with the services provided by the library online databases.	5.390	1.070
Overall, my interaction with the library online databases is very satisfying.	5.341	0.990
Average Mean and Standard Deviation	5.421	0.960

Table 4 indicates the mean and standard deviation of academic staffs' opinions on satisfaction. It suggests that the respondents agree that the library online databases can give the best experience for the users (mean : 5.585), On average , they all somewhat agree with the library online databases performance (mean 5.366).

**Pearson correlational analysis**

Table 5: Pearson's correlation analysis

		Info Q	System Q	Service Q	Satisfaction
Info Q	Pearson Correlation	1	.835**	.770**	.814**
	Sig. (2-tailed)		0.000	0.000	0.000
	N	41	41	41	41
System Q	Pearson Correlation	.835**	1	.879**	.835**
	Sig. (2-tailed)	0.000		0.000	0.000
	N	41	41	41	41
Service Q	Pearson Correlation	.770**	.879**	1	.825**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	41	41	41	41
Satisfaction	Pearson Correlation	.814**	.835**	.825**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	41	41	41	41

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 5 shows the correlations among the variables in the study. The variable, information quality, was positively and significantly related to satisfaction of use ( $r = 0.814$ ,  $n = 41$ ,  $p < 0.01$ ) This gives an indication that the academicians were satisfied with the information quality of library online databases, and that it would be a productive tool for their works. While system quality, was positively and significantly related to satisfaction of use ( $r = 0.835$ ,  $n = 41$ ,  $p < 0.01$ ) This finding shows that system quality is largely characterized by the interaction between users and the library online databases. It is supported by the findings by Cheung & Lee (2011) on e-learning portal. It also shows that style of the library online databases will lead to the satisfaction of using databases. The publishers of the library online databases should give prior attention to the system quality of the databases such as in terms of easy navigation, fast response, fast transaction processing, can be used anytime, easy to use, always up and running and user friendly.

In terms of service quality, it was positively and significantly related to satisfaction of use ( $r = 0.825$ ,  $n = 41$ ,  $p < 0.01$ ) Table 5 indicates the correlation between variables, information quality, system quality and service quality and satisfaction. In line with our anticipation, all three variables are correlated with satisfaction. The system quality is found to have the highest significant positive relationship with satisfaction. The information quality and the service quality are also found to have significant positive relationship with satisfaction.

This result is also similar with the study by Nordin, Kassim, & Baharuddin (2012) which indicates that information, system and service quality has significant positive relationship with satisfaction

#### 4. Conclusion

The results confirmed that information quality, system quality and service quality aspects of library online databases positively and significantly correlate with satisfaction of library online database. The results are in accordance with the findings reported in the analysis part.

For future research, it could be further discovered and used in different settings. The university library administrators should regularly seek academicians' opinion regarding the quality of library online databases, because the users of these databases can tell us about the effectiveness of these electronic resources.

#### Acknowledgements

The authors gratefully acknowledge the contributions of UiTM, IIUM and UM academic members in participating in the study. Also all the staff at KICT and Department of Library & Information Science, KICT, International Islamic University for supporting the research.

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### Author Profile



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