Service quality, satisfaction and users’ continuance intention to use e-campus: A mediation analysis

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Abstract. The continued use of the information system would ensure the effectiveness of the implementation of a given program. Since the deployment of the system will cost a lot of funds, continuous use is not an option. However little is known about the role satisfaction as a mediator in the relationship between service quality and continuance intention. Accordingly, this research will identify a mediation role of satisfaction which in turn contribute to the adoption of the e-campus. Data were collected from 500 undergraduate and postgraduate students from private university in Kuantan Malaysia using a validated set of questionnaire. A bootstrapping procedure has been performed to examine the mediation hypothesis. The results indicate that satisfaction plays a significant role as a mediator of such relationship. Implications from this results are further discussed

1. Introduction

Through the growing use of information technology in all sectors, businesses have spent millions of dollars to get the best system possible. On the other hand, information technology providers need to provide systems that truly meet the needs of their customers. Thus, there’s a clear signal that quality of service is a very critical element of ensuring a business viability. In the study of information system acceptance, scholars have argued that service quality has direct relationship with customer satisfaction. This phenomenon has been confirmed by empirical evidence as found in[1], [2] and [3] studies. Holding customer relationships strong is a fundamental aspect that service providers need to understand as loyal customers are an essential asset to any company. Consumers are in fact the valuable customer themselves, who need to give priority on having better service. If the customer is not satisfied with the quality of service provided, the technology presented will not last since the user refuses to use it. Besides the strength of the relationship between quality service and the intention to use, we believe that satisfaction can mediate the relationship between service quality and continuance intention. This paper aims to examines the role of satisfaction as a mediator of the relationship between service quality and continuance intention.
2. Literature review

2.1. Service quality

According to [4] service quality is a well-established concept that the happiness of consumers is the most critical aspect of the success of businesses. That is why the service industry has concentrated on improving the standard of service and keeping consumers satisfied with the company. According to [5] service quality is an essential and hugely relevant aspect in virtually every service sector. [5] study found that service quality has direct effect on continuance intention. In the e-service quality context, findings suggest that the efficiency of the e-service output depends primarily on the perception of the customer[6]. Another definition of service quality can be found in [7] which the quality of service was defined as the perceptions players felt when playing, including reliability, responsiveness, assurance and empathy.

2.2. Satisfaction

According to [8] one of the most studied subjects in marketing, customer behaviour and tourism literature is customer satisfaction. It is clear that satisfaction has been examined from various perspectives such as quality satisfaction in e-commerce [9], patients’ satisfaction [10], bank loyalty, [11], tertiary education [12], third-party logistics [13], Edu-tourist [14], higher education [15], low cost airline [16], hospital service [17] and public services [18].

2.3. Previous study on satisfaction as a mediator

Study by [19] indicates that customer satisfaction depicts the full mediating effect on the relationship between website service quality and repurchase intention. Another study by [20] found that the quality of the website service can affect repurchase intentions by enhancing mediators such as customer satisfaction, as it has a full mediating effect on repurchase intentions. Study by[21] found that service quality had significant direct and indirect effects on customer satisfaction, which, in turn, had a significant direct effect on repurchase intention. Accordingly, hypothesis is proposed as:

H1: User satisfaction will mediate the effects of the antecedents service quality on the continuance intention

![Figure 1. Research model](image)
3. Methodology
The survey questionnaire was composed of three distinct sections, each section contained relevant questions pertaining to different parts of the study. Questionnaires were systematically distributed utilizing a convenient sampling method. The sampling frame for conducting the principal component analysis was comprised with 250 workers. A seven-point scale was used ranging from “strongly disagree” to “strongly agree” was used. A total of 500 samples were distributed among the potential respondents for the study, of which 325 questionnaires were received. After the screening process was completed, only 250 responses were considered complete and valid for data analysis.

4. Data analysis
Using bootstrapping method for significant test. Using PROCESS model 4, we first tested whether satisfaction mediated the relationship between content quality and continuance intention. The results indicated a significant total direct effect (path c; without mediator) of service quality on continuance intention (B=0.57, t (13.18) p<0.001, 95%CI [0.48, 0.66], a significant direct effect (path c'; with mediator) (B = .285, t (4.315), p<0.001, 95%CI [0.15, 0.41]and a significant indirect effect through satisfaction (B=0.28, 95% CI=0.15, 0.42) (see table 3). Thus, this study can conclude that the mediation effect of satisfaction is statistically significant between service quality and continuance intention, indicating that H1 is supported.

| Model 1 | coefficient | R² | SE   | t-value | p-value | LLCI | ULCI |
|---------|-------------|----|------|---------|---------|------|------|
| Service quality | .5660 | 0.36 | .0429 | 13.1815 | .0000 | .4815 | .6505 |

| Model 2 | coefficient | R² | SE   | t-value | p-value | LLCI | ULCI |
|---------|-------------|----|------|---------|---------|------|------|
| Service quality | .2858 | 0.35 | .0662 | 4.3150 | .0000 | .1555 | .4161 |
| satisfaction | .5089 |      | .0699 | 7.2789 | .0000 | .3713 | .6464 |

| Model 4 | Effect | BootstrapSE | BootstrapLLCI | BootstrapULCI |
|---------|--------|-------------|---------------|--------------|
| Satisfaction (indirect effect) | .2880 | .0528 | .1898 | .3963 |

5. Discussion
The current study used only one quality dimension element, namely service quality. Strong and positive relationship between service quality and continuance intention indicated that service quality plays an important role in explaining continuance intention among users. This relationship however get weakened with the inclusion of satisfaction as a mediator suggesting a significant mediation effect. The results are in consistent to the finding of [19]. This further indicates that e-campus service quality can positively affect continuance intention by improving satisfaction as a mediating variables. The results of the study are considered to make a significant contribution to the e-campus implementation. In addition, the study is distinctive in its scope by broadening a better understanding of the e-campus implementation. This study has several limitations. First, there are limited perspectives of quality dimension where only one quality attribute to be include in this study. Second, we are using non-probability sampling which can affect the generalizability to the population. Finally, the use of self-administered paper and pencil questionnaire will lead to provide consistent answers [22]
Conclusion
From the results of the, we believe that it can give e-campus manager a help and advice. First, the loyalty to the system is depend on the service quality. The results imply how to manage the e-campus implementation especially in terms of providing service quality to the end users.

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