The impact of Management information system on the performance at University of Aden

Hani Bakazem

Faculty member of statistic informatic – Administrative sciences faculty, University of Aden

Abstract:

According to several studies, there are thousands of people died or injured in accidents in every year. In developing countries like India, accidents are the major cause of death. There are many dangerous roads at mountain places/ hill areas which are single line narrow curved roads. At those curved places, the drivers aren't able to see the vehicle or obstacles coming from the other end of the curve and if the vehicle isn't in good condition then it is difficult to control those curved places. In order to minimize these accidents, we proposed a project to prevent accidents at U-turns by altering the driver about the vehicle coming from the opposite side. This is done by keeping an IR sensor on both sides of the U-turn and so that if vehicle comes from one end of the curve then sensor senses and this IR sensor gives signal to Arduino and Arduino gives command to Buzzer, LED lights and Buzzer rings on the other side in order to alert the driver.

Keywords: Proximity sensors, Arduino microcontroller, Counter, RGB LED, Buzzer, IR sensor.

1. INTRODUCTION

Recently many universities depend on MIS to facilitate internal and external parties for achieve goals in administrative duties and related to it. The enhanced competition in the private and public education has spurred universities into delivering greater efficiency, quality and more flexibility of services. This condition imposes additional demands on the universities' information processing capabilities. In order to achieve their goals and enhance their strategic performance, universities are adopting more advanced and comprehensive management information systems (Naranjo-Gil, 2009). MIS viewed as full system between user and machine supporting information to enhance operations, management and decision-making in an organization (Cooper 1988). MIS main purpose and usage was to improve the

efficiency (Shah, 2014). In Yemen, there are many challenges that are embodied in the dilapidated infrastructure. Like other Yemeni universities, Aden University lacks strategic plans for management information systems, limited expertise in information technology, and limited opportunities for administrative operations. As an important part of University of Aden have played role in staff training. In recent years, university has made remarkable achievements, but since administrative processes are still in the stage of development, there are inevitably some problems. This research seeks to investigate the impact of the Delone and McLean model of information systems success on the development of the impact of Management information system on the performance at University of Aden through proposed a framework. This framework consists of independent variables (system quality, information quality and service quality), mediator variables (intention to use and user satisfaction) and dependent variable is performance. In this case, it is necessary to strengthen the analysis and research on these problems and find out the solution to the problem due to there are no previous studies in MIS in high education. The study seeks to overcome the shortcomings of previous literature by addressing this question: what is the impact of Management information system on the performance at University of Aden?

To answer this question, we have some of hypotheses will test and analysis.

Table 1: The outline of the research hypotheses developed.

Research hypotheses	Supporting literature
H1: system quality positively affects intention to use with regards to MIS	(Sofia & Musrini, 2021); (Guerrero & Sierra, 2018); (Lutfi, 2023); (Mustafa, Ibrahim, Aizuddin, Aljunid, & Awang, 2024);(Petter& McLean, 2009)
H2: system quality positively affects user satisfaction with regards to MIS	(Sofia & Musrini, 2021); (Lutfi, 2023) ;(Mustafa et al., 2024);(Petter& McLean, 2009)
H3: information quality positively affects intention to use with regards to MIS	(Sofia & Musrini, 2021); (Lutfi, 2023); (Chimbo & Motsi, 2024) ;(Mustafa et al., 2024); (Hui, Al Mamun, Reza, & Hussain, 2025);(Petter& McLean, 2009)
H4: information quality positively affects user satisfaction with regards to MIS	(Sofia & Musrini, 2021); (Lutfi, 2023);(Chimbo & Motsi, 2024) ;(Mustafa et al., 2024); (Hui et al., 2025);(Petter& McLean, 2009);(Petter & McLean, 2009)
H5: service quality positively affects intention to use with regards to MIS	(Guerrero & Sierra, 2018);(Mohebifar, Hasani, Barikani, & Rafiei, 2016); (Lutfi, 2023);(Petter& McLean, 2009) ;(Mustafa et al., 2024); (Hui et al., 2025)
H6: service quality positively affects user satisfaction with regards to MIS	(Sofia & Musrini, 2021); (Guerrero & Sierra, 2018)(Mohebifar et al., 2016); (Lutfi, 2023);(Mustafa et al., 2024);(Hui et al., 2025);(Petter & McLean, 2009)

H7: internal control positively affects intention to use with regards to MIS	(Lutfi 2023); (Sofia & Musrini, 2021); (Alawaqleh, 2021)
H8: internal control positively affects user satisfaction with regards to MIS	(Lutfi 2023);
H9: user satisfaction positively affects intention to use with regards to MIS	(Lutfi 2023);(Sofia & Musrini, 2021); (Jeyaraj, 2020);(Petter& McLean, 2009)
H10: user satisfaction positively affects performance with regards to MIS	(Sofia & Musrini, 2021); (Lutfi, 2023); (Petter & McLean, 2009) (Lutfi &Alqudah, 2023);(Jeyaraj, 2020)
H11: intention to use positively affects performance with regards to MIS	(Sofia & Musrini, 2021); (Lutfi, 2023); (Petter & McLean, 2009); (Lutfi &Alqudah, 2023);(Alawaqleh, 2021)

Literature review

Lin et al., (2011) revealed that user-entention towards eGovernment products had strong influence because the essential framework of the technology acceptance model (TAM). Lin & Wang (2012) found that the acceptance of the system fit influence by quality of information and duty technology as well as the system was utility and contentment have strongly effect on commitment. (Cao, He, & Tian, 2022) discovered that the clarity of analysis increase the system responsible oversight to promote in scientific research management in college. (Guerrero & Sierra, 2018) resulted that information and technology are supported processing, storage and recovery in education also in operational and administrative support. Information system impact has depended on the interesting of IS researchers. In its simplest definition, IS impact is simply the dependent or output variable (Delone and Mclean,1992). The IS impact model dependent on latent variable (Aldholay, Isaac, Abdullah, & Ramayah, 2018). Although (Naranjo-Gil, 2009) denotes this impact as the degree to flexible of leaders in use MIS. (Lei, Li, & Yan, 2022) suggested Implementing a MIS enhances data processing performance and reduces response time (Liu, Wang, & Wu, 2021) his result showed that improving in information recall and poor as well as the query time has shorten. In this vein, (Ma & Feng, 2021) MIS contribute to ensuring data quality by improving its accuracy, reliability, and immediate availability. (Chen, 2022) MIS impact has become pivotal for the effectiveness of information management. (Liu, Wang, & Xiao, 2021) empirical proof on the MIS is characterized by its ability to perform required functions with high efficiency and its outstanding data reliability, making it an appropriate tool for meeting the information management requirements of science and technology projects in a university environment.

(Cao et al., 2022)emphasised the need increases the transparency of scientific evaluation to promote the innovative application. Service quality depends on innovativeness, usefulness and ease to use as (Salamah et al., 2022) mentioned in his research. (Hayatu Mazadu, Ibrahim, Ibrahim, & Salahudeen Mansur, 2022) confirmed that system quality and information quality noted influence the system use with regard to achieving the management system comfort by the faculty member. DeLone and McLean (1992) assessed six factors that affected IS success, for instance the quality of system, information, service, use, user satisfaction, and benefit. An adaptation model was designed for IS success following Delone and McLean (2003). (Jeyaraj, 2020) the pattern has become several directions for research, (Indrayani, 2013) display that efficacy of the designing and the arranging of academic information systems at college has been very effective. (Jeyaraj, 2020) used MIS to supply useful offering to current IS literature, mainly regarding of recognize the factors forming the net benefits obtained from MIS. (Mustafa et al., 2024) Discovered that system, information and service quality ease to use and accepted in intention to use. This study has revealed skill gap consistent with the assessment. It is considered crucial to comprehend the impact of MIS intention to use on performance, especially at the University of Aden, because of pertinent research. The aim was to assess the utilization of MIS during the post-adoption phases and the resulting effects from an administrative perspective. Concisely, this research has bridged the slot via D&M model used in university for good outcome.

Conceptual model and hypothesis formulation

DeLon&McLen, 1992 (2003) this part blueprint the research model progress, which enhance and grows the D&M success model. (Lutfi, 2023) while the majority of the initial D&M success model build were keep, a confined lay down independent variables show one of the blueprint restriction following historical works. (Lutfi, 2023)) Concerning net benefits, scholars still in respect of this variable (precisely performance) as an external one even with the integration of D&M for IS success evaluate, this research pointed to look into MIS use with the D&M model by keep net benefits as external variable: performance.User satisfaction reveals both explicit and implicit implications on MIS success, while system, information, service, and internal control quality indicate specific user experience aspects. All of the MIS model constructs are listed in the section that follows, along with justifications for the research hypotheses on their relationships. To determine the essential success factors of MIS

net benefits, the study hypotheses were created. The system use is inherently connected, as posited by D&M (2003), since favorable system intention to use experiences can influence user satisfaction and subsequently affect the net benefits of MISs (performance). Anticipably, the positive or negative net benefits of MISs may affect intention to use and user satisfaction from the perspectives of stakeholders.

The MIS system quality and intention to use or user's satisfaction

System quality (SyQ) refers to the system capabilities can effectively and conveniently meet user needs (DeLone& McLean, 2003). Such as the strengths of an information system to be seem reliability and ease of use (Çelik & Ayaz, 2022). Otherwise, the user unsatisficated in case the system quality inadaptability followed by unreliability, complicated to use and unrespones time (Seliana, Suroso, & Yuliati, 2020). (Widyaningrum, Sholihah, & Haryono, 2024) found that the system quality has a negative significant effect on system use. Superior system quality is regarded as a valuable ascribe of information systems. Consistent with previous research, the evaluation of system quality has been displayed to certainly affect system intention to use in terms of user-friendliness across system diversity (Jaafrah, 2017; Pramesti, 2019). Despite the potential for increased IS usage along a superior and functional system, Ritchi, Evayanti, and Sari (2020) found no correlation between system quality and system use. The influence of system quality on user satisfaction is significant when users encounter a certain level of ease while navigating the website (Ernawatiningsih& Arizona, 2021) and when their expectations for improved system intention to use are met (Weerakkody, Irani, Lee, Hindi, & Osman, 2016). Interestingly, the effect of system quality on satisfaction diminishes when users exhibit high self-assurance and digital literacy (Ernawatiningsih&Arizona, 2021). Furthermore, system quality is influenced by factors such as adaptability, conveyance, and the speed of operation and reaction, which are crucial for its optimization (Tsao, Hsieh, & Lin, 2016). Previous studies have showed that system quality has a certain effect on user satisfaction (Irawat&Syah, 2020), during research has presented conflicting results, suggesting that the system quality does not contribute to user satisfaction (Wang & Liao, 2008). Consequently, the backing hypotheses have been devised:

H1: system quality positively affects intention to use with regards to MIS.

H2: system quality positively affects user satisfaction with regards to MIS.

The MIS information quality (IQ) and intention to use or user satisfaction

IQ represents the quality of IS output (DeLone& Mclean, 2003). (Shim & Jo, 2020) discovered that IQ had significant relationship with both user satisfaction and intention to use. IQ had major associations with both user satisfaction and intention to use (Shim & Jo, 2020). From another side, (Widyaningrum et al., 2024) discovered that the IQ has a negative significant effect on system use. Given that information quality can effectively evaluate IS success across various environments, including MIS-focused areas (Urbach& Müller, 2012), this factor is a legitimate form in the current MIS success framework. The quality of information generated by MIS is vital at the managerial level, as the effectiveness of MIS intention to use depends on the view of users regarding information quality (Alharasis et al., 2022; Xu, 2015). The ability of MIS to create, document, and represent information suggests enhanced monitoring and control that transcends legal organizational limits (Ruggeri & Rizza, 2017). According to Idris & Mohamad (2017), MIS achieves success through accurate and timely information that meets organizational needs, thereby facilitating business operations and improving user satisfaction. Idris and Mohamad (2017) have as well as identified accounting information quality as a credible origin of information, highlighting accuracy, speed, entireness, and stability as indicators. Rooted in the assumptions of the present research, high information quality in MIS is expected to positively influence system utilization. (Sofia & Musrini, 2021) found that information quality has significant effect on user satisfaction. (Chimbo & Motsi, 2024) stated "A nonsignificant negative relationship existed between MER and information quality (IQ)"

Information quality significantly affects user satisfaction (Almaiah et al., 2022; Raie, Lang, & Welker, 2002) due to the fundamental reasons that underpin users' achievement of their goals (Chene, Jubiladoe, Capistranoe&Yene, 2015). All calculations have to be precise, as system users areassignment with preparing flawless accounting assignments and financial reports. For instance, users are likely to experience high satisfaction when utilizing an effective system (Chen et al., 2015) that delivers complete, relevant, well founded, receptive, and current information (Petter& McLean, 2009). The effect of information quality (IQ) on user satisfaction has yielded favorable results in certain literatures at the Information Systems (IS) level (Himang, Mendoza, Manalastas, Ocampo, &Himang, 2019), whereas other studies have indicated that information quality exhibited either conflicting or negligible effects on user satisfaction (Al-Fraihati, Joy, & Sinclair, 2019). It is anticipated that superior information

quality within MIS will negatively influence intention to use and user satisfaction, consistent with the following hypotheses:

H3: information quality positively affects intention to use with regards to MIS.

H4: information quality positively affects user satisfaction with regards to MIS.

The MIS service quality (SrQ) and system use (intention to use or user satisfaction)

In this context, service quality is designed to support top managers with intense insights in relation to measuring IS success (Jiang, Klein, & Crampton, 2000). It can be argued that service quality is one of major player encourage to use the system (Almaiah et al., 2022). While users have been inspired by the adequate quality exist in term of service (Aldholay et al., 2018), this quality is provided key role on reliability, responsiveness, and assurance (Lutfi,2023) to positively influence system use (Urus et al., 2020). For instance, high-quality service boosts fulfillment from user and performance perspectives, gathering anticipation linked to performance and effort (Almaiah et al., 2021). Regarding the conflicting results the correlation service quality with system intention to use, some research has shown that service quality major effect system intention to use (Pramesti, 2019; Jaafreh, 2017), while other studies found service quality to be insignificant in different contexts (Lee & Yu, 2012). Service quality is examined essential regarding for various factors that affect user satisfaction: the quickness of service demand reaction, validity, dependability, preparedness to provide services, and ranking of users (Venkatsh et al., 2012). In this regard, service quality is a determinant of user satisfaction, as MIS can provide improved and streamlined services for managing user issues (Tsao, Hsieh, & Lin, 2016). Users are likely to express satisfaction when service providers extend aid system failures. Jaafrah (2017) argued that SrQ had a positive impact on user satisfaction within the banking sector, whereas Ernawatiningsih and Arizona (2021) asserted that SrQ influenced user satisfaction in information systems. In contrast, the study conducted by Rok and Al Meriou (2015) on industrial information systems suggested that service quality did not significantly affect user satisfaction. Accordingly, the proposed assumptions have been formulated:

H5: service quality positively affects intention to use with regards to MIS.

H6: service quality positively affects user satisfaction with regards to MIS.

Internal control quality and intention to use or user satisfaction

The quality of internal control pertains to the organizational mechanisms employed to protect and assess precision and dependability of accounting information, thereby enhancing performance (Lutfi 2023). According to Nurkholis, and Subekti (2019), the internal control system mirrors the endogenous factors that influence performance. For instance, Abdelhak and Dalel (2009) identified the MIS as an instrument for internal control and security. An optimal MIS ensures the security of data exchange and control both within the organization and externally, thereby maintaining competitive advantage by preventing data theft and espionage (Amponsah, Adekoya &Weyori, 2022). On the other side, (Syahputra, 2022) said that the internal control variable be deficient in an important impact on information quality, at the same time the variable Quality of Accounting Information Systems has an important impact on the information quality. The implementation of the IS application did not prioritize system use for e-government; rather, it concentrated on the success of both external and internal systems, engaging community and employees, in order. (Alawaqleh, 2021) stated that internal control has significant influence on performance. Prior studies have investigated internal control across diverse contexts. (Eports, Peters, Richardson, & Watson, 2012) our analysis indicates that the correlation with forecast accuracy seems to be most pronounced for IT control deficiencies that are most closely linked to data processing integrity. The effect of internal control on management accounting information quality, the influence of ethical considerations on management accounting information quality, and the influence of information system quality on management accounting information quality (Hertati, 2015). According to (Moreira Monteiro, Machado Vale, Morais Cepêda, & de Almeida Leite, 2021) the IcQ has postive effect on financial information system and decision making success. Also (Alawaqleh, 2021) stated that IcQ has significant effect on performance. From a different perspective, (Syahputra, 2022) mentioned that there is no significant effect by IcQ on IQ.

Nevertheless, in spite of the theoretical expectations regarding the important impact of quality of internal control and MIS utilization in organization, as indicated by various experimental studies (Alodat, Al Amosh, Khatib, & Mansour, 2023), there remains a deficiency in robust experimental evidence concerning the connection among quality of internal control and MIS intention to use. This research intends to enhance the current understanding of IS and MIS inspect effects of quality of internal control within a particular MIS context. Specifically, the research investigates in what way elevated internal control

might affect operators' experiences with the system. The proposed assumptions have been formulated to examine the correlations between constructs:

H7: internal control positively affects intention to use with regards to MIS

H8: internal control positively affects user satisfaction with regards to MIS

users' satisfaction and intention to use and performance (net benefits)

In research focused on Information Systems (IS), system use is generally characterized by the amount of effort invested in engaging with the system, which can be quantified based on output quantity produced by the system over a specified timeframe (Lutfi et al., 2023a). The evaluation of users is pivotal in assessing how system intention to use contributes to enhanced achievement and improved wise choice, finally leading to greater user satisfaction and a higher rate of system intention to use (Bokhari, 2005; Lutfi et al., 2022b). According to Ouiddad, Okar, Chroqui, &Hassani (2020), user satisfaction can be defined as the extent to which users perceive that the information made by the system meets their needs. In this context, satisfaction arises from user experiences that are based on the fulfillment of needs, information retrieval, and wise choice processes (Lutfi et al., 2020).

User satisfaction is linked to the use of MIS within the MIS framework (Lutfi, Al-Okaily, Alsyouf&Alrawad, 2022). This specific intention to use facilitates organizational decision-making, enhances productivity, and increases efficacy (Lutfi, Al-Khassawneh, Almaiah, Alsyouf, &Alrawad, 2022). System use includes user activities related to IS learning and operationalization. Users who depend on the system are likely to gain net benefits from MIS. As observed in the work of Emad et al. (2014), organizations that successfully integrate MIS often report favorable outcomes on their performance compared to those with limited MIS performance. Likewise, Jaafrah (2017) indicated that system use has leads to improved net benefits of MIS. Idris and Mohamad (2017) found that the use of MIS significantly and positively impacts MIS efficiency in terms of measuring MIS performance. In summary, businesses should prioritize the use of MIS to evaluate its influence on MIS efficiency. Previous studies have emphasized the critical role of system utilization as a primary factor enabling businesses to achieves desired MIS benefits (Lutfi et al., 2022d). (Hui et al., 2025) revealed that the service quality notable affect user satisfaction. The significant impact of

MIS intention to use on user satisfaction and the overall success of MIS leads to the formulation of the following hypotheses:

H9: user satisfaction positively affects intention to use with regards to MIS

H10: user satisfaction positively affects performance with regards to MIS

Intention to use and performance

While the success of MIS is contingent upon users' satisfaction with the system (Wang & Liao, 2008), this satisfaction represents an introspective assessment of assorted experiences that are encountered and assessed over time (Alsyouf& Ishak, 2018; DeLone& McLean, 1992). In particular, the analysis of satisfaction related to MIS examines the psychological or emotional states of users after they have cognitively evaluated their interactions with the designated system. It is essential to prioritize users' requirements and values in the selection of system design and the development of functions to enhance user satisfaction (Alsyouf et al., 2021;). (Mohebifar et al., 2016) found significant gap effect performance. For instance, users who are highly satisfied with the system demonstrate a favorable usage experience, which contributes to greater user satisfaction and overall net benefits. The subsequent hypothesis is proposed, suggesting that user satisfaction may have a significant influence on net benefits (Pramest, 2019; Jaafrah, 2017; Tajuddini, 2015):

H11: intention to use positively affects performance with regards to MIS performance.

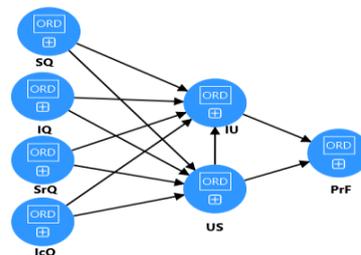The model of the research is: (DELONE and MCLEAN 2003)

Fig. 1. Proposed model.

Methodology

Study sample and data collection.

The selection of measurement items was informed by prior studies in MIS or IS, with no alterations made to maintain their pertinence to the study context. A group of experts who

specialize in MIS have developed and assessed the questionnaire. An inital pre-test was undertaken to check that the questions were understandable, sure, free of ambiguity, and appropriate. (Sekaran &Bougi, 2013). All items were evaluated using a participants rated their agreement using a five-point Likert scale, strongly disagree was ranked as 1 and strongly agree was 5, and the nominal scale was done to assessed demographic items. Table-2 showed summary of population of respondents as gender and age. Table 3 theoretical constructs and the measurement indicators or predictors utilized in this research. The survey was conducted over a two-month timeframe, from 5 March to 4 May 2025, and involved leaders who implement MIS. An online questionnaire was disseminated to 179 participants from various departments and colleges affiliated with the University of Aden in Yemen. MIS was assessed using four items, the system, information, service and internal control quality. The reliability of these 11-items was good, with a Cronbach's α of 0.796 for "System quality" 0.813 for "information quality," 0.802 for "service quality". System usage (user satisfaction and intention to use) was assessed with 2-items scales, that updated by the study of Kim[a] et al., (2020).

Table 2: *Demographic Characteristics of Respondents.*

	DEMOGRAPHIC VAR.	FREQ.	PER %
GENDER	Male	130	76.5
	Female	39	22.9
ACADEMIC RANK	Professor	12	12.4
	Associated Professor	66	38.8
	Assistant Professor	83	48.8
EXPERIENCE	Less than 5	97	57.1
	5 to 10	43	25.3
	11 to 15	16	9.4
	16 and above	14	8.2
CURRENT POSITION	Dean	12	7.1
	Vice dean	24	14.1
	HOD	134	78.8

Table 3: Properties of the Measurement Model (N=170)

Constructs and Indicators	t-value	Cronbach's α	CR	AVE
System Quality		.796	.880	.709
SQ-IU	1.29			
SQ-US	1.27			
Information Quality		.813	.868	.569
IQ-IU	0.142			

IQ-US	0.354			
Service Quality		.802	.871	.629
SrQ-IU	1.74			
SrQ-US	1.28			
Internal Control Quality		-	-	-
IcQ-IU	3.26			
IcQ-US	3.16			
Intention to use		-	-	-
IU-PrF	4.83			
User Satisfaction		-	-	-
US-IU	1.04			
US-PrF	3.02			

Sample and analysis

The desired beneficiaries for this research were academic lecturers of university of Aden. To pick topics, grab sampling was used. The college lecturers had done a pilot test. A few of reviewed were made to distribution the survey in final formal. The sampling of the survey was170 respondents out of the 179 respondents, as 84.7 % response ratio.

Two-step process of structural equation modeling (SEM) was used to analysis the collected data, and measurement model analysis was used (Anderson andGerbing, 1988). The coincident genuineness has been assessed by confirmative factor analysis. The following step, assess has done on hypothesized theoretical model and estimated parameters. To perform the structural analysis and maximum likelihood was applied to estimate the parameters depend on multivariate normality of data (Bollen, 1989).

Research subjects

Table 2 showed the population statistics of survey respondents. Among the 170 subjects 76.5% were male and 39% were female. The largest sector of experience distribution included 5-10 years (82.4%). Thus, the current position is 78.8% of the department head.

Results

The element investigation was conducting earlies. Although a totally dimension details exhibited notable loadings. Totally dimension detailsexhibited significant at the 0.05 levels. Assessment was run as well to confirm coincident and distinguish genuineness. The investigation for coincident genuineness had done by average extracted (AVE) and composite reliabilities (CR). The result of assessment showed in table 3 that the CR surpassed lowest need of 0.86, point to its internal coherence and one-dimensionality to equivalent build. (Hair,

Black et al.,2006). The lowest need of the AVE surpass need ranged from 0.86 to 0.87. These resultsshowed demonstrated that whole constructs display adequate coincident genuineness. Following determine tailored assessment model, theassociation between variable in the recommendation was examined using structural equation modeling. The structural model results show that four hypotheses are statistically supported at the 0.05 level. IcQ has a significant positive effect on IU ($\beta = 0.259$, t = 3.256, p = 0.001) and on US ($\beta = 0.273$, t = 3.156, p = 0.002). IU also has a significant positive impact on PrF ($\beta = 0.353$, t = 4.834, p < 0.001), and US positively affects PrF as well ($\beta = 0.213$, t = 3.022, p = 0.003). These four hypotheses are therefore supported.

In contrast, the paths from IQ to IU ($\beta = -0.016$, p = 0.887) and to US ($\beta = -0.043$, p = 0.724) are not statistically significant. The effects of SQ on IU ($\beta = 0.129$, p = 0.198) and on US ($\beta = 0.141$, p = 0.205) are also non-significant. Likewise, SrQ does not significantly influence IU ($\beta = 0.195$, p = 0.081) or US ($\beta = 0.152$, p = 0.201), and the relationship between US and IU is not significant either ($\beta = 0.083$, p = 0.294). Thus, these hypotheses are not supported. Output of the recommendations is showed in table 4.

Discussion

Summary and implications

MIS affects performance with users has been examined by this study for universities to improving the efficiency of university operations, supporting decision-making, and enhancing the overall performance of students and employees, giving them a competitive advantage in the higher education environment. A structure to elucidate how extent of MIS impacts an administrative processes university's image to create prolongs association alongside with the system. This structure will assist additional researchers to grasp users' actions grounded on their awareness of multifaceted MISactions, intention to system use and performance.

Uncovering the last studies that conclusive users' perception of MIS could encourage direction for a life partnership with the system. The sub-elements of MIS have an advantage on system use. These findings align with the widely recognized concept (Park et al., 2014; Yoon et al., 2006) The implementation of MIS has a beneficial impact on the perception of university image. It encompasses all the responsibilities that users consider to be important and valuable. In this research, the elements of academic ethics have an impact on the system

usage by users. This suggests that a higher perception of a university's engagement in activities is present. For instance, emphasizes the need for a clear vision and strategy for MIS implementation, which should be aligned with the college's overall ambition its perceived intention to use and user satisfaction. This involves identifying the key stakeholders, their needs, and the benefits of MIS implementation. Second, the framework highlights the importance of a robust infrastructure, including hardware, software, and network infrastructure, to support the implementation of MIS. Finaly, a university contributes in spread the culture in society makes the user to use the system to provide services to users. Moreover, MIS and achievement of sub-elements came from earlier investigations, and these complex sub-theories were analyzed. Thus, it was feasible to examine the elements that influence performance and system use. By deriving and verifying the sub-elements of MIS and their usage, one can gain insights into the sub-dimensions of MIS and system use that influence customer perceptions and behaviors. The university must to improvement system use because it helps to rise its rank among others universities. Universities should also consider adopting cloud-based MIS solutions, which it supports a qualitative shift that differs from traditional practices. Additionally, universities should invest in data analytics and business intelligence tools, to enable them to extract insights from their data and make informed decisions. Finally, universities should establish a centralized MIS unit, responsible for managing and maintaining the system, and providing support to users. This unit should be staffed by IT professionals with expertise in MIS, and should have the necessary resources and budget to support the system. By adopting these strategies, university of Aden can improve the application of MIS in university education administration, and enhance their ability to make informed decisions, improve efficiency, and reduce costs. Lastly, the study discusses several inferences, addresses shortcomings, and outlines opportunities for future research initiatives.

Conclusion

Conclusively, the application of MIS in university education administration in Yemen is crucial for effective decision-making, planning, and operations. The proposed framework and recommended strategies can help improve the application of MIS in university education administration in Yemen, leading to enhanced efficiency, productivity, and accountability. By

adopting MIS, university of Aden can better manage their resources, improve student outcomes, and achieve their goals and objectives.

Table 4

Hypotheses testing results.

| Hypothesis No.	Path	Standardized	T –Values	Hypotheses Testing
H1	SQ→IU	0.129	1.29	Not Supported
H2	SQ→US	0.141	1.27	Not Supported
H3	SrQ→ IU	0.195	1.74	Not Supported
H4	SrQ→US	0.152	1.28	Not Supported
H5	IQ→ IU	-0.016	0.142	Not Supported
H6	IQ→ US	-0.043	0.354	Not Supported
H7	IcQ→ IU	0.2 59	3.26	Supported
H8	IcQ→ US	0.273	3.16	Supported
H9	US→IU	0.083	1.04	Not Supported
H10	US→PrF	0.213	3.02	Supported
H11	IU→PrF	0.353	4.83	Supported
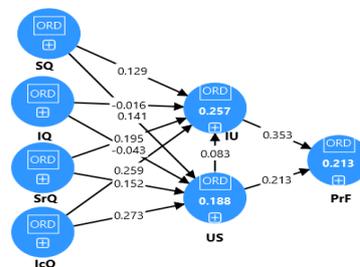
Fig. 2. Structural model results.

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