Enhancing The Academics Continous Use of Educational Management Information Systems in Post-Pancemic Era

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ENHANCING THE ACADEMICS' CONTINOUS USE OF EDUCATIONAL MANAGEMENT INFORMATION SYSTEMS IN POST-PANDEMIC ERA

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Abstract: The Covid-19 pandemic has acknowledged the importance of educational management information systems (EMIS) for quality management (QM) in higher education, and set new directions for post-pandemic studies. Successful implementation of QM, however, processes depends mainly on lecturers' perceptions about quality and educational technology. However, higher education lecturers' profiles regarding these quality perceptions and their commitment to technology acceptance must be investigated more. The aim of research is to analyse relationship between Education Management Information System (EMIS) and quality management (QMAS) to lecturers' continuance commitment (CC). In response to this research gap, we identified such profiles using a quantitative survey of 534 lecturers from Indonesian higher education institutions. A seven-point Likert scale was used to measure the respondents' expectations or expression of their perceived experience on all indicators used in the study. The data analyzes were descriptive analysis and factor analysis. Based on the seminal work of Roger's diffusion of innovations, technology enthusiasts, visionaries, pragmatists, conservatives, and sceptics remain valid in the organisation, and the uptake of educational management information systems is still in the hands of technology enthusiasts and visionaries. Quality management and EMIS acceptance are critical factors that make lecturers willing to continue using the system to support accreditation. These profiles will enable customised training in the recovery after the Covid-19 pandemic.

Keywords: Covid-19 pandemic, educational management information systems (EMIS), quality management, technology acceptance, continuance commitment

Introduction

The rapid development and implementation of information systems have impacted jobs, prompting humans to seek coping strategies to meet the resulting demands and appropriate support to integrate these strategies into daily life and work (Tirastittam et al., 2022). A prominent aspect of this impact in higher education is the current nature of quality management (QM), which is aided by educational management

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information systems (EMIS) (Bravo et al., 2022). QM is an organisation's ongoing, methodical endeavour to raise its quality standards and achieve its objectives. The commitment to follow external certification and accreditation criteria sets the stage for quality management. QM is maintained and strengthened over time by both the cultural shifts required for continual improvement at all levels of the organisation, as well as internal quality methods and systems with a robust planning and monitoring component. Continual improvement and development are prioritised by QM rather than simply adhering to external certifications. Also, it contains a significant element of cultural transformation, wherein the various organisation members are dedicated to continual development (Savastano et al., 2022).

The Covid-19 pandemic has intensified the influence of technology on employment (Phimolsathien, 2022), quality management in higher education (Papademetriou et al., 2022) and raised the necessity for the aforementioned coping mechanisms. Understanding these in the context of the Covid-19 pandemic is a new research topic (Mäntymäki et al., 2022). However, the main actors of quality management in higher education, i.e., the lecturers, have been inadequately studied, particularly in terms of training designed to improve their skills (Bravo et al., 2022).

Covid-19 was the first significant pandemic of the digital era. It presents an opportunity to be better prepared for future pandemics by implementing an IT strategy matched with business objectives (Ardolino et al., 2022). Disruptions due to the COVID-1 pandemic which are imposing limits on what we consider to be normal life, more encourage the use of digital technology (DEČMAN et al., 2022). Covid-19 has increased the rate of organisational change in terms of employment outcomes, structure, and requirements of higher education (Carnegie et al., 2022), casting light on the limitations and obsolescence of some educational technology and highlighting their untapped potential for post-Covid-19 recovery (Yazdani et al., 2023). If these EMIS are enhanced and used in the context of educational quality management, they can inform more complete educational planning and administration by linking, for instance, disaggregated administrative data with data on the learning process (Recch et al., 2023).

The research was carried out in Indonesia, a country with high demands for QM in HE due to its historical development. Although the Indonesian higher education system has reported significant growth and progress in refining quality education over the last two decades, the major issues commonly plaguing Indonesian universities are unfulfilled missions and unsuccessful organisational objectives as a result of institutional governance failures (Rosser, 2023). This is demonstrated by the failure of most Indonesian universities to compete with counterparts in the South East Asian region. In terms of university rankings, most Indonesian universities rank poorly compared to the top universities in neighbouring Asian countries. Because these demands are consistent with a global trend, the study's findings and conclusions may also apply to other countries.

To avoid and control the spread of COVID-19, education systems worldwide have implemented EMIS completely to achieve the pedagogical objective of suspending courses without suspending school. From the standpoint of sustainable development objectives, these practices must be maintained. When the epidemic eventually subsides in Indonesia, it is uncertain whether lecturers will continue participating in these modes, as past research indicates a reluctance to accept the technology (Basuki et al., 2022; Putro et al., 2022; Satispi et al., 2023). Recent research reveals that for EMIS to be considered successful, users must acquire a personal commitment to its continued use (Goyal et al., 2022). Mastering information technology is a compulsion. Workload forces people to understand new technologies (Jurek et al., 2021). Continuance commitment denotes that users plan to continue using a technology after the first acceptance of it (Lutfi, 2022).

We focus this study on HE lecturers' coping with current job changes, particularly their attitudes toward and acceptance of EMIS because we are situated at the intersection of the triple research gap (i.e., HE-QM strategies, Covid-19 impact on HE and HE lecturer's profiles). Understanding these with managers' profiles may indicate opportunities for organisational support, thereby increasing the quality of HE by strengthening lecturers' critical role in articulating different expectations, perceptions, and subcultures within the organisation. Many authors argue that higher education faculty has a negative attitude toward quality management (Daumiller et al., 2021; Sell, 2023). They see it as bureaucratic, a source of repetitive paperwork and an impediment to professionals' efforts to produce high-quality results. Others, conversely, argue that quality management has a positive impact (Asiyai, 2022; Barbato et al., 2022). The central question is whether quality management aided by technology contributes to educational improvement or merely feeds the beast of bureaucracy by introducing burdensome but ineffective management procedures and paperwork.

Theoretical Background

Positive impressions of QM and accreditation among academics serve as a foundation for the successful implementation of EMIS for improving QM and accreditation, providing fresh cycles of improvement and illuminating the connection between the two factors inside HEIs. However, lecturers' opinions about QM, accreditation and the adoption and usage of EMIS have yet to be sufficiently studied and show discrepancies (Fernandes & Singh, 2022). Understanding lecturers' profiles may enable more efficient EMIS implementation, enabling universities to improve QM. The technology adoption life cycle is the most popular method for categorising technology users (Rajiani & Kot, 2018). According to (Rogers et al., 2019), technology adopters can be categorised as (i) innovators (the technology enthusiasts) who believe that the new technology will lead to enormous benefits; (ii) early adopters (visionaries) who believe that being the first to adopt the new technology will maximise their benefits; and (iii) early majority (pragmatists) who adopt a particular new technology because it is already widely adopted, believing

that it has become a status symbol; (iv) late majority (conservatives) displaying a risk-averse attitude toward a technology innovation (they adopt the technology primarily because social norms and reference groups influence them); and (v) laggards (sceptics) displaying a negative attitude toward new technology in general and being very sceptical of the benefits arising from the adoption of new technology. Students' behavioral intention to use e-learning tools is positively and significantly influenced by several factors including performance expectations; effort expectations; social influence; facilitating conditions; hedonic motivation; learning value; and social distancing (Muangmee et al., 2021). The use of Massive Open Online Courses (MOOCs) was found to be significantly influenced by factors of social influence, absorptive capacity, conditions of facilitation and perceived autonomy (Khalid et al., 2021).

Accreditation, a quality assurance process by which an institution or program undergoes an assessment determining the institution's "compliance with a set of standards defined, reviewed, and critically evaluated by experts in order to ensure quality," is primarily responsible for ensuring the quality of higher education (Bravo et al., 2022).

Accreditation is viewed as enhancing service quality in higher education institutions (Acevedo-De-los-Ríos & Rondinel-Oviedo, 2022). Accreditation has been utilised as a quality indicator, and a means to be ranked among the world's most prestigious institutions (Adam, 2023). (Aaltonen & Siltaoja, 2022) assured that in response to competitive pressures, European business schools had increased their quality metrics through globally recognised accreditation bodies such as the European Foundation for Management Development Quality Improvement (EQUIS), and the Association to Advance Collegiate Schools of Business (AACSB). However, (Andreani et al., 2020) contend that periodic quality evaluations conducted by recognised accreditation bodies do not reflect the fundamental challenges of education; instead, they are typically employed as a quality control exercise.

(Romanowski & Alkhateeb, 2022) also discovered that certification remains a contentious subject in higher education regarding its benefits vs the hazards of growing bureaucratisation and control. They contend that, despite the impact of certification on research performance, actual quality management practices are separate from ranking positions. Moreover, international accreditation favours prominent and wealthy business schools.

QM in higher education requires transparency, financial accountability, research productivity, higher graduation rates, and, most importantly, practical teaching and learning (Cheah et al., 2022). In technical terms, quality management consists of measures taken regularly at the system and institution level concerning internal and external evaluation processes, progressive improvement, continuous monitoring of processes, resource management, and the incorporation of corrective measures (Sader et al., 2022). However, these procedures are frequently implemented in

different ways across the institution. Some academics view quality processes as excessive control over their academic progress and view accreditation as a reasonably positive process (Asiyai, 2022; Barbato et al., 2022).

Lecturers' perceptions about accreditation can be grouped into institutional relevance of accreditation, the objectivity of accreditation evaluation, internal quality unit relevance for accreditation, value of accreditation to the educational system, continuous QM value, and student participation value (Bravo et al., 2022). Owing to the variability across educational institutions regarding QM and accreditation attitudes, it is necessary for institution building to comprehend how lecturers form the aspects above.

According to (Al-Mamary, 2022), extant literature refers to Education Management Information Systems using a variety of conceptual terminology, including student information systems, student management systems, information technologies in education management, and "basic" information systems. Theoretically, education management information systems (EMIS) are information systems (IS) capable of producing, managing, and disseminating educational data and information as part of their IT architecture (Ali et al., 2022).

Integrating EMIS into quality assurance methods facilitates maintaining an organisation's quality standards and human resources management through information management (Kooli & Abadli, 2022). EMIS must be practical and suitable for their intended purpose, have a suitable interface with the quality management system, and have relevant data gathering and analysis capabilities. In this regard, it is crucial to evaluate managers' EMIS perceptions to facilitate self-evaluation, accreditation, or quality assurance. Academics and managers accept EMIS to varying degrees, depending on various factors, including quality culture, cultural and organisational resistance, individual experience, information, critical success factors, stakeholders, post-implementation follow-up, support, and positions (Bravo et al., 2022).

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a well-known instrument for measuring the acceptance of information systems. It combines various technology acceptance models into a single model to estimate the likelihood that new technologies will be adopted and comprehend the acceptance factors (Al-Mamary, 2022). The model perceives the use of technology as predicted by behavioural intention (BI) and facilitating conditions (FC). In turn, the behavioural intention to use technology is determined by performance expectancy (PE), effort expectancy (EE), and social influence (SI). UTAUT is a valuable model for evaluating the success of introducing a new EMIS, as it helps to understand the factors of EMIS acceptance in most of the world's cultures (Harlie et al., 2019).

Implementing an EMIS successfully at higher education institutions is a lengthy process that involves significant planning time and effort. Implementation success

also requires institutional support, which consists of considerable financial investment and institutional acknowledgement of the commitment (Zhao et al., 2020). In addition, the system's quality, the lecturers' self-perceptions, and their dedication to long-term use are crucial to the success. Their continued system use is key to its viability (Chauhan et al., 2022). Nevertheless, only some studies examine lecturers' perspectives and dedication to these innovation tools (Anthony Jnr, 2022). Several scholars have researched how to improve organisational efficiency and competitiveness over time. They have found that employee commitment to the organisation is a crucial predictor of information technology success (Kocsis et al., 2022). Continuance commitment is a psychological state that defines the relationship between an employee and an organisation, and it represents the recognition of the costs involved with leaving the organisation (Allen & Grisaffe, 2001).

Although instructors' dedication has been researched extensively in traditional education environments, information on this feature in the EMIS context is very restricted. Several studies have examined the initial adoption of EMIS, which was initially regarded as the essential factor in determining the possibility of a new technology's success (Zaremohzzabieh et al., 2022). However, a recent study indicates that for an EMIS to be considered successful, users must establish a personal commitment to its continued use (Almaiah et al., 2022). Continuance commitment signifies that, following the first acceptance, consumers plan to engage in this format. The first implementation of an information system (IS) does not imply that the user will continue to utilise it in the future (Goyal et al., 2022). Owing to work required for EMIS, retaining existing users of that technology is crucial, or, as (Elsotouhy et al., 2022) refer to it, to establish users' stickiness.

Based on the above description, the study's theoretical framework is portrayed as follows:
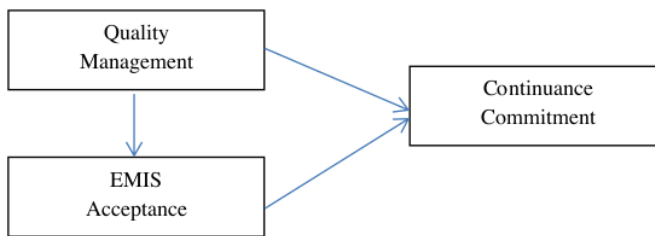

Figure 1. The study's theoretical framework

The hypothesis in this study is

1. Quality management (QMAS) is positively related to lecturers' continuance commitment (CC)

2. Education Management Information System (EMIS) is positively related to lecturers' continuance commitment (CC)
3. Quality management (QMAS) is positively related to Education Management Information System (EMIS)
4. Education Management Information System (EMIS) acceptance mediates the relationship between quality management (QMAS) and lecturers' continuance commitment (CC)

Methodology

This study employed a cross-sectional methodology. Utilising a snowball sampling strategy using the authors' networks and social media platforms, a web-based questionnaire was given to instructors at public universities in Banjarmasin, Indonesia, from July 25 to December 24, 2022. Six hundred (600) lecturers filled out our questionnaires, providing five hundred thirty-four (534) valid responses (representing 89% of the response rate). Profiling is estimated from the frequency of EMIS usage where 5 (very often) is labelled as a technology enthusiast, 4 (often) = visionaries, 3 (Sometimes) = pragmatist, 2 (hardly) = conservatives, and 1 (Never) = sceptical. Perceptions about quality management/accreditation scale (QMAS) adapted from Bravo et al. (2022) contained six (6) items assessing the perceptions about accreditation and QM. Those items are institutional relevance of accreditation (X1.1), the objectivity of accreditation evaluation (X1.2), internal quality relevance (X1.3), value of accreditation to the educational system (X1.4), continuous QM value (X1.5), and student participation value (X1.6). An adaptation of the UTAUT questionnaire of Venkatesh et al. (2012) was used to assess EMIS acceptance. The instrument entails five scales: performance expectancy (X2.1), effort expectancy (X2.2), social influence (X2.3), facilitating conditions (X2.4), and behavioural intention (X2.5). Continuance commitment (CC) used 3 items adapted from the study of San Martin et al. (2020). The questions for those items are: I would like to continue using EMIS (Y1.1), I intend to use EMIS (Y1.2), and I prefer to use EMIS rather than using the manual administration system (Y1.3). A seven-point Likert scale was used to measure the respondents' expectations or expression of their perceived experience on all indicators used in the study. The first stage of data analysis was descriptive statistics to explain the profile of research respondents and the general impression of the respondents towards variables. The second part of the analysis is Factor Analysis to simplify the factors into common components by retaining factors loading of 0.50 or higher in the model (Hair et al., 2020). The reliability of these analyses was evaluated by calculating Cronbach's alpha coefficients which have to exceed 0.60 (Bonett & Wright, 2015).

The probability of each path of direct and indirect effects was examined during hypothesis testing. The probability of each path must be 0.05 to meet the criteria for a significant effect. The presence of a mediated effect was determined using a single inferential test of path relationships between the independent and dependent

variables, as described by (Baron & Kenny, 1986). As a result, EMIS, quality management, and continuance commitment to EMIS must be significant in this model.

Result and Discussion

The following lecturers' profiles were presented based on the frequency of EMIS usage.

Table 1. The EMIS Users' Profiles

Profiles	Frequency	Per cent	Cumulative Percent
Sceptics	101	18.9	18.9
Conservatives	112	21.0	39.9
Pragmatist	118	22.1	62
Visionaries	104	19.5	81.5
Techno-Enthusiast	99	18.5	18.5
Total	534	100.0	100.0

Most EMIS users are pragmatist type (22.1%) who adopt EMIS technology in university because it has been broadly adopted. The next is the conservatives (21%), who adopt the technology mainly because social norms and reference groups influence them. The sceptics who are very sceptical towards the benefits of adopting a new technology occupy the niche of 18.9%. Thus, the cumulative percentage of those who are slow to adopt technology is 62% higher compared to quick adopters of visionaries (19.5%) and Techno-enthusiast (18.5%), bringing the total to 38%. EMIS users who are visionary and techno-enthusiast are dominated by young lecturers. While EMIS users who are of the skeptical, conservative, and pragmatic type are dominated by old lecturers. Young lecturers tend to adopt technology provided by universities more easily than older lecturers. The tendency of older lecturers to need a longer time to study new technology.

In the following section, we use descriptive and relational research tools to describe all the elements relevant to the analysis. This part is divided into three parts: in the first one, we statistically describe the variables that belong to the research sample. The second one is devoted to proving the suitability of the Factor Analysis, and in the third part, we outline the results. The following Table 2 shows the outputs of selected descriptive characteristics. All items constructed dependent and dependent enter the planned analyses. Out of six items describing quality management, student participation (X1.6) and continuous QM (X1.5) were rated the highest. In accepting IMES, out of 5 items, performance expectancy (X2.1) and facilitating conditions (X2.4) became the paramount consideration in accepting technology. Of the three items denoting continuance commitment to using EMIS, the statement "I would like to continue using EMIS" (Y1.1) is the respondents' general attitude.

Table 2. Descriptive Statistics of Constructs

Item Statistics			
	Mean	Std. Deviation	N
Institutional relevance	3.8034	1.94789	534
Objectivity	4.5899	1.73864	534
Internal quality	3.6742	1.86671	534
Value of accreditation	4.9663	1.81891	534
Continuous QM	5.0506	1.58891	534
Student participation	5.4663	1.41613	534
Performance expectancy	6.4551	.95531	534
Effort expectancy	6.3258	1.00962	534
Social influence	4.9157	1.73325	534
Facilitating conditions	6.1292	1.24192	534
Behavioural intention	3.8652	1.91973	534
Continue using	5.1685	1.76416	534
Intention	4.5000	1.90462	534
Preference	3.8539	2.01617	534

The suitability of factor analysis is determined by looking at the loading factors in the component matrix. As shown in Table 3, Principal Component Analysis extracted three factors in the model: quality management, EMIS acceptance, and continuance commitment. The total number of items related to those three factors is greater than 0.5, indicating the model has discriminant validity (Hair et al., 2020). The Bartletts test of Sphericity value is also tiny (4746.218) and Probability.00), indicating that the data is suitable for factor analysis. Table 2 also shows the results of the 14 items comprising this study's three factors. The Kaiser-Meyer-Olkin (KMO) measurement of sampling adequacy for the variables is.879, which is greater than the globally accepted index of >.6. (Shrestha, 2021). The internal consistency determination of items indicating the distinctive factor is calculated following factor analysis and specific cluster implementation. Calculating Cronbach's alpha coefficients for each component is a common method for estimating internal consistency. The table shows that Cronbach's Alpha coefficients were high for all items, exceeding the 0.60 threshold (Bonett & Wright, 2015). Internal consistency of 0.90 or higher is considered excellent, and 0.70 to 0.90 is considered good. This means that the number of factors is correctly derived and accounts for 73.818% of the variance, while the remaining 26.182% is explained by factors not included in the model.

Table 3. Loading Factors and Variance Explained

Items	Loading factors			Cronbachs' Alpha
	1	2	3	
Institutional relevance	**.831**	-.132	-.143	.805
Objectivity	**.819**	-.145	-.207	.808
Internal quality	**.835**	-.115	-.194	.805
Value of accreditation	**.817**	-.137	-.166	.807
Continuous QM	**.815**	-.120	-.232	.808
Student participation	**.820**	-.120	-.205	.808
Performance expectancy	.213	**.859**	-.128	.821
Effort expectancy	.150	**.859**	-.149	.823
Social influence	.098	**.828**	.004	.828
Facilitating conditions	.082	**.865**	-.074	.826
Behavioural intention	.047	**.805**	-.070	.835
Continue using	.435	.145	**.720**	.819
Intention	.473	.020	**.734**	.820
Preference	.470	.123	**.727**	.818
Variance Explained	34.152	26.391	13.275	
Total Variance Explained: 34.152 + 26.391+13.275 – 73.818				

The hypotheses are examined by assessing the t-test and the significance values of the influence between variables. The hypothesis is accepted if the significance value is less than 0.05 (Hair et al., 2020). Table 4 summarises the path analysis results used to test the hypothesis.

Table 4. The Path Relationship among Variables

Hypothesis	Influence	Estimate	SE	t-test	P	Conclusion
		Direct Influence				
H1	QMAS → CC	0.586	0.043	13.623	.000	Supported
H2	EMIS → CC	0.258	0.064	5.625	.000	Supported
H3	QMAS → EMIS	0.010	0.147	0.004	0.884	Not Supported
		Indirect Influence				
H4	QMAS → EMIS → CC	0.586 x 0. 258 x 0.010 = 0.001				
	Significance Limit	P ≤ 0.05 and t-test ± 1.96				

Note: QMAS (Quality Management Accreditation Scale), CC (Continuance Commitment), EMIS (Educational Management Information System).

The t-test value of the Quality Management Accreditation Scale = 13.623, and significance of ≤ 0.05 confirm the first hypothesis that quality management reflected in institutional relevance of accreditation, the objectivity of accreditation evaluation, internal quality relevance, value of accreditation to the educational system, continuous QM value, and student participation value is positively related to lecturers' continuance commitment to using Education Management Information System (EMIS). Similarly, the t-test value of EMIS = 5.625 and significance of ≤ 0.05 confirm the second hypothesis that EMIS acceptance reflected in performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioural intention is positively related to lecturers' continuance commitment to using Education Management Information System (EMIS). However, the t-test value of QMAS → EMIS = 0.004, and the significance of 0.884 ≥ 0.05 reject the third hypothesis that Quality Management positively affects EMIS acceptance. Since this study employed an implicit method to test mediation (Baron & Kenny, 1986), this negative result implicitly rejects the fourth hypothesis that EMIS acceptance mediates the relationship between quality management and lecturers' continuance commitment to using Education Management Information System (EMIS). This result implies that using technology in managing quality in an educational setting will not result in the intention to continue using technology as a competitive advantage in the scope of Indonesian public universities.

The positive, significant paths quality management and education management information on continuance commitment to adopt technology reveals that the Indonesian lecturers' capacity for utilising and developing digitalisation opportunities is comparable to that of some developing or developed nations. This result bolsters previous research demonstrating the superiority of human activities over technology (Basuki et al., 2022; Satispi et al., 2023). Nevertheless, this study confirms that, despite recognising the significance of quality management and accreditation, they will only turn to technology if compelled to.

Although respondents knew the significance of adopting technology to enhance academic performance, only 38% of respondents quickly adopted the technology. Therefore, EMIS is not obligatory for Indonesian universities; instead, it is optional, indicating that they must realign their HRM and technology strategies as a competitive weapon to manage the quality reflected in their excellent accreditation. These findings emerged in a specific type of university: traditional, public, located far from the capital, Jakarta, where most of the material and intellectual resources are located, but with the highest level of national accreditation. This set of characteristics makes for an intriguing case within the Indonesian educational system, indicating that effective quality management processes and dedication have been sustained over time. Thus, the studied university may serve as a model for current efforts to diminish the differences between state and for-profit higher education institutions in Indonesia and other nations.

Following (Acevedo-De-los-Ríos & Rondinel-Oviedo, 2022), who suggested that institutional accreditation is vital for the institution's sustainability, our study goes further. It confirms that the quality management materialised on the perception of the lecturers on the institutional relevance of accreditation, the objectivity of accreditation evaluation, internal quality relevance, value of accreditation to the educational system, continuous QM value, and student participation value lead to lecturer' commitment to continue using EMIS technology. This finding adds to the work begun by (Goyal et al., 2022) and allows us better to understand the relationship between EMIS and personal commitment. The lecturers' subjective perception of this innovation as a valuable tool for an organisation to improve financially, provide better teaching, increase competitiveness, or communicate more effectively directly impacts their continuance commitment. This commitment, which (Elsotouhy et al., 2022) refer to as users' stickiness, contributes to this innovation's long-term success.

Managerial Implication

Relevant to the EMIS acceptance research is the Covid-19 pandemic, which has significantly influenced the global HE sector (reinforcing the necessity to maximise and utilise the online platforms available for QM and accelerating the widely anticipated reforms). So, the worldwide setting for digital innovation is one in which universities will continue to innovate and build technological management tools to lead, register, and monitor academic activities, i.e. to confront complicated accrediting challenges. Consequently, Covid-19 has enabled scholars to envision with greater clarity a future in which EMIS will be a vital tool for all HEI management at the strategic, tactical, and operational levels. However, because respondents' adoption rates vary, it is necessary to understand lecturers' profiles and distinguish between operational, tactical, and strategic levels as critical factors for a successful digital transformation exacerbated by the Covid-19 pandemic in order to achieve a more effective implementation of the EMIS, which will allow institutions to strengthen QM. Furthermore, the institution should develop training programs to communicate the importance of EMIS and its positive impact on the organisation. This can lead to lecturers developing a commitment to the system, as empirically supported in our study.

Conclusion

The Unified Theory of Acceptance and Use of Technology (UTAUT) is used to guide research into a deeper understanding of why and motives behind lecturers' ongoing commitment to this educational innovation. As evidenced by contributions to the literature and information from lecturers' perspectives, quality management and EMIS acceptance emerge as crucial factors that make lecturers willing to continue using the system for supporting accreditation. However, more than feeling competent with technology is needed to motivate lecturers to do so. In relation to the impact of Covid-19 on future research in terms of the type of employment outcomes,

structure, and requirements, the pandemic may provide us with a valuable opportunity to gain a deeper understanding of management profiles in connection to QM perceptions and EMIS adoption. These lessons may be helpful in the future as a responsibility and commitment for higher education institutions to improve their quality processes based on the lecturers' unique experiences and knowledge. The instructors must recognise that the internet and COVID-19 have noticeably altered educational technologies, notwithstanding varying responses to the deployment of EMIS technology. This progress has resulted in the rapid proliferation of EMIS systems, particularly in higher education institutions.

Due to the gathering of data from a single Indonesian public university, the generalizability of the results is limited. In addition, this study does not examine the effect of culture on commitment, which must be examined alongside other dimensions in future research. This study could be enhanced with a larger sample of lecturers from various universities.

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