HUMAN ORIENTED ELEMENTS, QUALITY MANAGEMENT INITIATIVES AND ORGANIZATIONAL PERFORMANCE: A CASE OF HIGHER EDUCATION INSTITUTES

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ABSTRACT

The main purpose of the current study is to explore the impact of quality management practices on the organizational performance. The mediating role of quality management initiatives in the relationship between quality management practices and organizational performance of Indonesian higher education institutes is also observed. The present study was particularly designed for analyzing if there is any relationship between human-oriented elements (like, loyalty, satisfaction, and commitment) and the quality management practices (QMPs) among HODs of public universities in Indonesia. The result for this second research question also supported the proposed hypothesis. The study discovered a significant positive association among human-oriented elements and the QMPs. This finding is also consistent studies, since they emphasized to integrate participative and effective management which could effectively address the need to adopt employee-oriented approaches that may yield greater satisfaction among employees. In the input-process-output chain, employee is considered as a key element of any educational system. Therefore, employees' commitment and satisfaction cannot be overlooked. Meanwhile, a loyal and satisfied employee will likely perform in an efficient manner. Briefly, the external customers' (public, students, and their parents) loyalty and satisfaction can only be achieved if the employees are satisfied and loyal towards their work.

Keywords: Human Oriented Elements, Quality Management Practices, Organizational Performance.

INTRODUCTION

The debate on the concept of quality involves various views and ideas, how it is defined, and its orientation in terms of different people and things. The interface among organizational performance and quality management practices (QMPs) cannot easily be estimated and has become a significant issue. Furthermore, it is difficult to define the accurate role of organizational performance and QMPs, as it covers a wide range of subjects and multiple areas (Guenther & Heinicke, 2019). Therefore, it is unwise to ignore QMPs because it might lead to poor organizational success, whereas, improving organization's quality management practices in competitive environment would be a winning strategy (Bakotić & Rogošić, 2017). Thus, in order to improve quality management practices, significant efforts must be made by firms in this direction, as organizational performance mainly depends on it. Literature review indicates a lack of consensus regarding the role of QMPs in achieving desirable performance outcomes. In this regard, several prior studies and significant body of literature have failed to provide enough evidence about the precise effects of QMPs on the organizational performance and remained an

unanswered question. Several prior and recent researches have reported unfavorable performance outcomes arising from QMPs, for instance, maintenance of QMPs, lack of flexibility, more paperwork, no improvement in performance, cost issues and no support to the firms in terms of business success, market value, and competitiveness. In Jurburg et al. (2018) study, they concluded that scholars still have not acknowledged the advantages of QMPs and consider it as a liability to an organization. Hence, it can be stated that QMPs may not yield similar outcomes for all the organizations, therefore, its suitability it still vague in terms of organizational performance.

Additionally, there is also a lack of general consensus among scholars about the QMPs comprehensive model, and to avoid unsatisfied customer experience, organizations seem unfocused and confused towards developing a real QMPs model (Ismyrlis, 2017; Silwal & Manandhar, 2017). The early stages of determining QMPs dimensions were primarily based on the quality perspective of pioneering scholars (Deming, Juran, Crosby, Feigenbaum, Taguchi, & Ishikawa). Imran et al. (2017) were the earliest contributors who suggested the QMPs dimensions on the basis of critical success factors (CSFs) (Bakotić & Rogošić, 2017). Furthermore, the introduction of CSFs has given rise to a significant increase in the volume of studies in the context of quality management practices (QMPs) (Bakotić & Rogošić, 2017). On the contrary, several organizations attempted to formulate the QMPs dimension on the basis of national quality awards (NQAs) criteria (Bakotić & Rogošić, 2017). In previous studies, the relationship between performance and QMPs has been examined using the NQAs criteria. Unfortunately there is lack of agreement among scholars regarding QMPs dimensions, but no comprehensive investigation has been made by the higher education institutions in this regard, for instance, which dimensions indicate that quality management practices have not been performed comprehensively (Sailors et al., 2019).

The quality management practices are mostly studied and observed by the operations management scholars. The organizational performance is disintegrated into various disciplines, i.e. from organizational behavior, human resource, information systems, management accounting, operations management to the marketing discipline (Guenther & Heinicke, 2019). The organizational performance measure particularly aims to analyze the internal processes and acts as a key driving force to bring about organizational change. In brief, performance improvement refers to a continuous process of gaining desirable objectives in an organization (Bititci et al., 2016). Furthermore, in the area of operations management, several scholars have conceptualized organizational performance in various ways.

Around the globe, the tertiary institution systems are faced with a major challenge of internalizing education (Frawley et al., 2019). Given the worldwide educational growth and deduction in government's budget allocation, public as well as the private higher education institutions (HEIs) have been emphasizing more upon commercial competition, arising from the economic effects. Such constraints have caused HEIs to look for alternative financial sources. In addition, such environments characterized by greater competition thus demand to investigate how these institutions operate, their impact on educational service provision around the globe, particularly in Indonesia, and how such competition improves organizational performance. By emphasizing the significance of service quality and excellence in HEIs performance, the Indonesian government introduced and implemented quality revolution and the quality management practices (Nasim, 2018), such as, ISO 9000 series, total quality management (TQM), customer charter and 5S for improving the quality of its educational institutions

In addition, the annual reports provided the evidence that incompetent organizational performance of HEIs in Indonesia is mainly due to the increasing number of public complaints. Several previous scholars have widely discussed these QM initiatives, including 5S, ISO 9000, Client Charter and TQM and reported customer satisfaction, organizational performance and service quality as the resultant outcomes (Drugan et al., 2018). Recently, a significant increase in QMPs studies has been reported in the services sector. The higher education institutions also fall in the service industry and have started to emphasize more towards fulfilling their customers' needs (Jabbar et al., 2020). As compared to other industries, services sector is a significant contributor to any economy (Guenther & Heinicke, 2019). Therefore, besides the organizational performance and QMPs relationship, a few scholars (Ćoćkalo & Bakator, 2018; Murmura et al., 2018) have also highlighted the need for more studies on the soft factors (or human-oriented elements)

LITERATURE REVIEW

Quality Management Practices

The operations management considers the systems perspective as a theoretical foundation for the modern quality management. According to systems perspective, service and product quality is a consequence which occurs when several variables interact with each other, these include, planning, machines, management, procedures and labor. Besides, the systems perspective also emphasizes the significance of managing internal practices because they will consequently induce quality. Quality management practices (QMPs) refer to *"a system of interconnected procedures for achieving quality objectives and to comply with the quality policy"*. The QMPs involve certain key ingredients which allow the organizational employees to discover, develop, design, support and deliver products and services demanded by the customers. Simply put, a few scholars Ataseven et al. (2018) attempted to explain the QMPs continuous development model. This model requires continuance improvement in the quality of products and services rendered by the organization, which ultimately leads to the greater customer satisfaction. In view of Ataseven et al. (2018), it also manifests confidence among customers and organizations, based on their abilities to systematically supply services and products to satisfy their customer needs.

The definition for HEIs quality management practices cannot easily be recognized, since the idea of QMP in HEIs was also derived from business practices (Manatos et al., 2017). Kwame et al. (2019) pointed out a new dimension of quality i.e. the quality of a product or service entirely depends on customer choice. As such, the globalization issue and deduction in government's educational funds have distracted the higher education institutes from their main objectives (Shamsudin et al., 2017).

Regardless of the huge publications regarding quality management practices, this concept has remained misunderstood and misinterpreted by the previous scholars. In context to HEIs, the definition of quality management practices encompass various factors, i.e. value for money, fitness for purpose, perfection, achieving objectives and stakeholders' perspective. While defining QMPs in higher education context, the major issue is the identification of customer. Rahman et al. (2019) argued that while defining quality, HEIs often overlooks an important question that is who actually is the customer? According to Xia et al. (2017), quality management practices are best defined as *"the fitness for purpose"*. This fitness for purpose framework emphasizes to analyze QMPs at organizational level. Simply put, how the higher

education institutes identify certain objectives and successfully surpass these desirable goals determine their service quality (Shamsudin et al., 2017; Xia et al., 2017).

Satisfaction: The term satisfaction generally belongs to the marketing field. Contrarily, the prior literature regards service quality as one of the unique constructs. However, service quality and satisfaction have been previously operationalized as two separate constructs in several prior studies. Yalley & Agyapong (2017) and Jabbar et al. (2020) also support this study and confirmed that satisfaction can be measured, and conceptualized with reference to service quality. Kilburn et al. (2016) defined customer as *"an individual whose perception is of major importance and it determines quality"*. Furthermore, different customers and organizations perceive quality in a different way (Hossain et al., 2017). In view of Ko & Liu (2017), satisfaction acts as *"an assessment of a particular service, product or a specific feature which brings pleasant consumption experience to the customer and thus yields satisfaction with the fulfilment of one's desires"*. Thus, service organizations are recommended to seriously consider the issue of satisfaction and must make efforts to achieve higher customer satisfaction (Jermsittiparsert, 2019; Jermsittiparsert et al., 2019).

In context to HEIs, customer identification is the greatest challenges which must be resolved. In addition, Hossain et al. (2017) pointed out that proper identification of students is important as it is the customer's viewpoint which must be considered to measure perceived service quality. Although, in HEIs, different customers perceive service in a different way. In the presence of various customers and stakeholders, it has been difficult for the educational system to identify how such design features may influence the whole process, keeping in view other stakeholders' interests and ultimately achieve customer satisfaction. In addition, the tertiary institutions may have several types of customers, such as, the local community, students, family and their parents, the governing body, government, local authorities, potential employers, and the staff. In a similar Belias et al. (2017) also mentioned students, family and their parents, administration, staff, society and the academic staff as the stakeholders of HEIs.

Commitment

Commitment and Satisfaction are the two closely related concepts (Chordiya et al., 2017). Huge number of studies on commitment is available in the literature but all are based on organizational psychology or organizational behavior. A study Hidayati et al. (2019) suggests that greater emotional commitment of employees toward their work will likely to make them invest even more towards achievement of their desired targets and achieving excellence. Generally, commitment is defined as *"the inclination to perform a certain task in a certain way to achieve a desired commitment target"*, while in another definition, it is referred as *"a psychological situation which holds an employee together both in organization and on job"* (Karim & Noor, 2017). Thus, the present study considers commitment as *"a sense of affection that an individual feels in a particular department"*, and this also reflects that to what extent he/she will adopt a particular perspective or characteristics of that department.

Furthermore, the Affective Commitment Scales (ACS) were assessed in this study to determine the authoritative personnel's affective orientation towards their department. This scale is relatively shorter than the OCQ and the latter thus converges with the ACS. This study had not assessed the continuance component of commitment, as it has been measured in terms of other variables such as, performance and loyalty. In addition, there is still a lack of consensus about the normative component of commitment due to its validity issue.

Loyalty

According to the literature, commitment and loyalty are directly related to each other. Loyalty is considered as an important construct in the field of marketing. Loyalty refers to the willingness to show persistent support towards a business for a long time, followed by repeatedly buying and using their products and services on exclusive basis, and suggesting its products among associates and friends (Hossain et al., 2017; Sun et al., 2019). In another definition, loyalty refers to *"a profound commitment of re-patronizing or repurchasing a product or service in the future, in spite of all the marketing efforts and situational influences having the potential to induce customers to switch to other products or services"*.

For loyalty, one out of three approaches was employed to conceptualize this concept. Loyalty can be related to attitude, composite, or the behavioral approach (Lin & Kuo, 2016). During early research on loyalty, several prior scholars adopted the behavioral approach to conceptualize this concept and considered it just like repetition constructs (Lin & Kuo, 2016). In view of Ngobo (2017), the most inappropriate judgment on behavioral approach is that this approach does not adequately considers the customers' decision making process, particularly their purchase behavior. On the contrary, to overcome the shortcomings of behavioral approach, a new approach was introduced i.e. the attitudinal approach (Ngobo, 2017). To sum up, the attitudinal approach covers wide range including the resultant construct, abstract concepts, and psychological commitment. Thus, scholars have discussed this approach as a behavioral approach instead of conceptual one (Lin & Kuo, 2016).

Furthermore, to analyze customer loyalty, a composite approach has been proposed by Ngobo (2017), for this purpose they combined the attitudinal and the behavioral approaches. Thus, loyalty cannot only be explained in terms of repetitive behavior, rather attitudinal process effects also describe this phenomenon (Ngobo, 2017). Also, it has been observed that several scholars in past have adopted the composite loyalty approach such as, Ngobo (2017); Li & Petrick (2016).

Hypothesis Development

According to Umar & Ismail (2018), the production and service systems in every organization constantly need to improve their quality which would likely to boost their performance. QMPs most significant benefit is that the employees tend to involve themselves towards establishing an effective system that gives them a shared sense of accomplishment. Besides, this activity provides effective solutions and serves as a motivator in improving organizational performance. Furthermore, Umar & Ismail (2018) reported a positive relationship between organizational performance and QMPs. Briefly, it is believed that the adoption of QMPs would result in consistent organizational performance, which thus indicates that organizational performance and QMPs are positively related. So, in this study we discovered that there exists a positive relationship among organizational performance and the implementation of QMPs. As discussed earlier in QMPs section, the quality management practices particularly emphasize employee satisfaction. In addition, these practices facilitate organizations in consistently achieving employee satisfaction. Based on this reported linkage among satisfaction and QMPs, we hypothesize that:

Moreover, the QMPs implementation increases employee commitment throughout the organization. Furthermore, Thomas (2017) also discovered that senior and middle management's involvement and greater commitment level significantly affect the process of achieving

organizational success. In addition, a QMPs initiative is successful due to various components, including, employee readiness, size of organization, approach to transform, and leadership (Hastings & Schwarz, 2019). Hence, we suggest the following hypothesis:

Moreover, to retain a loyal employee is a prerequisite for the implementation of quality management practices. A number of scholars have mentioned employee loyalty as an important requirement to effectively adopt certain quality practices (Dawabsheh et al., 2019; Hastings & Schwarz, 2019). To put it in another way, QMPs particularly demand loyalty from employees. Briefly, significant body of literature asserts that loyalty can be improved with the adoption of QMPs (Ngobo, 2017; Li & Petrick, 2016), and similar findings were obtained in this research.

Literature on quality management indicates that organizational performance and human-oriented elements have a positive relationship. While studying satisfaction, various organizations that have adopted QMPs reported that performance and satisfaction improvement are positively related (Bititci et al., 2016; Guenther & Heinicke, 2019). Meanwhile, two kinds of customers exist in any organization, i.e. external and internal. The external customer's satisfaction is dependent upon the internal customer's satisfaction, which together leads to organizational performance. Therefore, internal customer's (employee) satisfaction has remained a necessary condition for achieving the satisfaction of external customers (Guenther & Heinicke, 2019). As, the objective of QMPs is to develop an environment which could bring beneficial outcomes for both external and internal customers, therefore, satisfaction is expected to enhance organizational performance. Thus, the following hypothesis is proposed:

H_1 *Commitment has significant impact on the QMP.*

H_2 *Loyalty has significant impact on the QMP*

H_3 *Satisfaction has significant impact on the QMP.*

Subsequently, in examining commitment, a number of people involve who works in the organization, for instance internal customers (employees), work unit, top management and organization. It has been reported by several previous studies that commitment brings about valuable outcomes, for example it reduces stress, improves performance and productivity of employees, and boosts the morale of employees (Grødal et al., 2019; Tharikh et al., 2016). All these factors enhance organizational performance (Grødal et al., 2019; Tharikh et al., 2016). Finally, it has been identified that organizational performance is significantly affected by loyalty. If an employee is eager to stay in an organization, especially because he/she believes in their goals and values, this attachment and devotion towards an organization can be regarded as an emotional response and is referred as loyalty (Grødal et al., 2019). Loyalty is believed to be the key driver to achieve desirable performance, which also helps service organizations in achieving economic outcomes (Ataseven et al., 2018). Hence, the hypothesis is proposed as follows:

H_4 *Satisfaction has significant impact on the organizational performance.*

H_5 *Commitment has significant impact on the organizational performance.*

H_6 *Loyalty has significant impact on the organizational performance.*

RESEARCH METHODOLOGY

In order to perform theoretical analysis of the current model, PLS-SEM was applied in this research. There are many reasons associated with the selection of this particular method. One of the reasons behind using this method is that it provides rational and accurate results as compared to other software and techniques (Hair et al., 2019). Another reason of selecting this

method is that it is an effective statistical tool when it comes to studies related to social and behavioral sciences because it has the ability to check and evaluate several relations altogether (Ong & Puteh, 2017). Survey-based technique was used for the collection of data. Initially, 500 questionnaires were distributed; however, 370 were received back. Because of incomplete information, 33 out of 370 were rejected leaving a total of 340 questionnaires for data analysis. Therefore, for this study, the response rate was 67.4% and on the basis of the literature available, it was suitable for the PLS-SEM technique.

RESEARCH RESULTS

For this study, data analysis was conducted step by step (Table 1). After the collection of data, first step was the screening of data which was conducted by using the Statistical Package for Social Sciences (SPSS). SPSS was used to check whether the data was appropriate for data analysis or not. In the second step, Measurement Model (MM) was evaluated which was suggested by Henseler et al. (2016) (Figure 1).

Measurement model evaluates the reliability of individual items. Structural model (SM) and MM were estimated by implementing a two-step process. MM was measured by using discriminant and convergent validity, individual item reliability, and internal consistency reliability criteria's (Hair et al., 2016 & 2017; Mikalef & Pateli, 2017; Singh & Prasad, 2018). Individual item reliability was measured to estimate the MM by considering all constructs' outer loadings (Hair et al., 2016; Ong & Puteh, 2017). Measuring internal consistency reliability is the next criteria, since it specifies the level at which all items measure the similar concept (Hair et al., 2017). To check and calculate the internal consistency reliability, Cronbach alpha and composite reliability coefficient (CR) were applied in the study (Hatamifar et al., 2018; Ramayah et al., 2018).
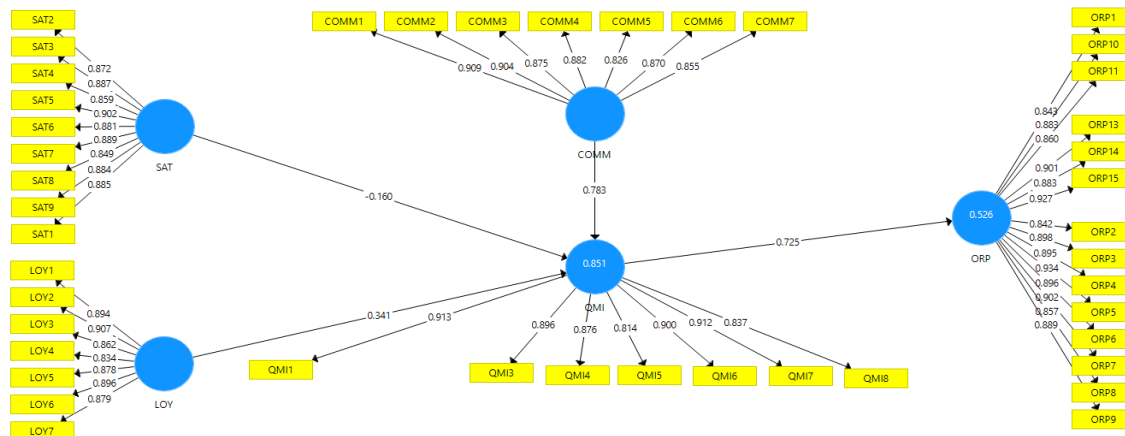

FIGURE 1
MEASUREMENT MODEL

The suggested minimum value for composite reliability (CR) is equivalent or greater than 0.70 (Hair et al., 2016; Henseler et al., 2016). The Table 2 presents the CR values for every latent construct included in this research and they fall in between 0.817- 0.90, which indicates that all the values are suitable as they are greater than 0.70 which is the suggested minimum value of CR. According to Hair et al. (2017), convergent validity specifies the extent to which each item represents their latent construct and also shows each item's correlation tendency with different

measures of that same latent construct. Therefore, by applying the Hair et al. (2017) suggestion in the current study, convergent validity was evaluated by measuring average variance extracted (AVE) value for every single latent construct. The value of AVE should be 0.50 or higher for convergent validity to be acceptable (Mikalef & Pateli, 2017).

	COMM	**LOY**	**ORP**	**QMI**	**SAT**
Table 1					
CROSS LOADINGS					
COMM1	0.909	0.602	0.639	0.818	0.635
COMM2	0.904	0.63	0.661	0.801	0.624
COMM3	0.875	0.622	0.595	0.818	0.605
COMM4	0.882	0.637	0.597	0.796	0.638
COMM5	0.826	0.571	0.554	0.751	0.57
COMM6	0.87	0.613	0.593	0.793	0.596
COMM7	0.855	0.593	0.654	0.792	0.554
LOY1	0.576	0.894	0.606	0.635	0.846
LOY2	0.618	0.907	0.642	0.662	0.855
LOY3	0.618	0.862	0.603	0.627	0.802
LOY4	0.56	0.834	0.598	0.63	0.792
LOY5	0.65	0.878	0.652	0.656	0.825
LOY6	0.672	0.896	0.667	0.683	0.841
LOY7	0.591	0.879	0.619	0.629	0.831
ORP1	0.556	0.533	0.843	0.562	0.522
ORP10	0.648	0.662	0.883	0.651	0.655
ORP11	0.614	0.613	0.86	0.616	0.586
ORP13	0.61	0.656	0.901	0.65	0.646
ORP14	0.597	0.615	0.883	0.622	0.622
ORP15	0.706	0.707	0.927	0.734	0.684
ORP2	0.593	0.57	0.842	0.595	0.562
ORP3	0.648	0.639	0.898	0.647	0.627
ORP4	0.586	0.601	0.895	0.635	0.58
ORP5	0.644	0.66	0.934	0.688	0.67
ORP6	0.645	0.683	0.896	0.669	0.668
ORP7	0.611	0.636	0.902	0.627	0.612
ORP8	0.621	0.638	0.857	0.626	0.642
ORP9	0.614	0.623	0.889	0.656	0.607
QMI1	0.868	0.701	0.69	0.913	0.67
QMI3	0.792	0.642	0.607	0.896	0.606
QMI4	0.76	0.645	0.63	0.876	0.618
QMI5	0.738	0.58	0.565	0.814	0.552
QMI6	0.836	0.64	0.648	0.9	0.615
QMI7	0.81	0.675	0.671	0.912	0.645
QMI8	0.785	0.635	0.641	0.837	0.597
SAT2	0.632	0.79	0.58	0.592	0.872
SAT3	0.587	0.818	0.594	0.594	0.887
SAT4	0.603	0.793	0.608	0.593	0.859
SAT5	0.668	0.87	0.62	0.688	0.902
SAT6	0.597	0.808	0.629	0.604	0.881
SAT7	0.614	0.876	0.674	0.635	0.889
SAT8	0.526	0.789	0.58	0.563	0.849
SAT9	0.623	0.866	0.64	0.65	0.884
SAT1	0.593	0.826	0.615	0.608	0.885

Table 2
RELIABILITY AND CONVERGENT VALIDITY

	Cronbach's Alpha	rho_A	CR	(AVE)
COMM	0.949	0.949	0.958	0.765
LOY	0.951	0.951	0.96	0.773
ORP	0.979	0.98	0.981	0.786
QMI	0.951	0.953	0.96	0.773
SAT	0.963	0.964	0.968	0.772

Table 3
VALIDITY

	COMM	LOY	ORP	QMI	SAT
COMM	0.875				
LOY	0.797	0.879			
ORP	0.702	0.794	0.887		
QMI	0.71	0.786	0.725	0.879	
SAT	0.69	0.742	0.701	0.7	0.879

The level at which some of the particular constructs in the study are different from other construct is called discriminant validity (DV) (Ong & Puteh, 2017; Singh & Prasad, 2018). According to Ong & Puteh (2017), DV can be calculated from AVE. Therefore, AVE square root was computed as well to determine the suitability of DV, as it should be greater than the other latent variables of model (Ong & Puteh, 2017). DV can also be calculated by comparing indicator loadings and cross loadings as well (Ong & Puteh, 2017). On the basis of existing literature, it can be concluded that in order for DV to be acceptable, the values of cross loadings should be less than the indicator loadings (Table 3).
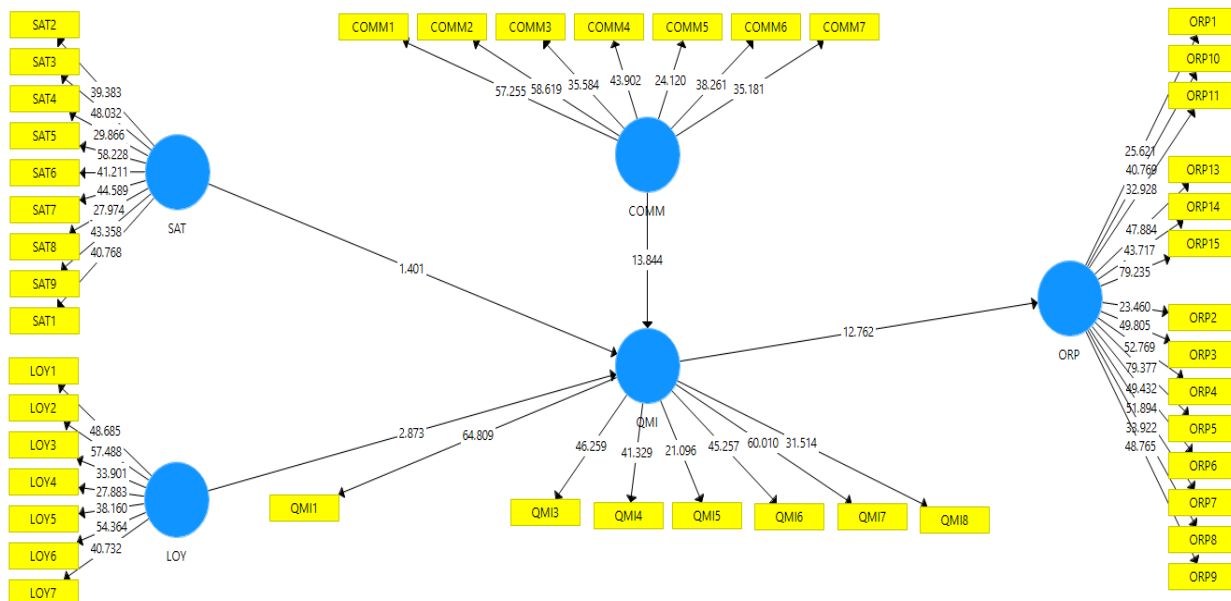

FIGURE 2
STRUCTURAL MODEL

Moving further, after the calculation of MM, in the next step, Structural Model was evaluated (Figure 2). To calculate SM, bootstrapping method was applied by taking into account

sample of 5000 (Hair et al., 2016; Ong & Puteh, 2017; Ramayah et al., 2018). PLS also helped to calculate values of predictive relevance, significance of path coefficients, effect size, and R square. The substantial part of PLS analysis is the path analysis. After conducting path analysis, moderator analysis was conducted to calculate the moderation effects (Tables 4 & 5).

Table 4 DIRECT RELATIONSHIPS	(O)	(M)	(STDEV)	(|O/STDEV|)	P Values
COMM -> ORP	0.568	0.563	0.053	10.637	0
COMM -> QMI	0.783	0.775	0.057	13.844	0
LOY -> ORP	0.247	0.254	0.09	2.745	0.003
LOY -> QMI	0.341	0.349	0.119	2.873	0.002
QMI -> ORP	0.725	0.727	0.057	12.762	0
SAT -> ORP	-0.116	-0.116	0.083	1.392	0.082
SAT -> QMI	-0.16	-0.16	0.114	1.401	0.081

Table 5 MEDIATION	(O)	(M)	(STDEV)	(|O/STDEV|)	P Values
COMM -> QMI -> ORP	0.568	0.563	0.053	10.637	0
LOY -> QMI -> ORP	0.247	0.254	0.09	2.745	0.003
SAT -> QMI -> ORP	-0.116	-0.116	0.083	1.392	0.082

The effects can be calculated by applying the formula suggested by Akter et al. (2017) for the calculation of effect size. Effect size can be defined as the proportional effect that some particular independent variable have on dependent variable which is determined by the value of R-square (Tables 6 & 7). With this method, predictive capability of model can also be evaluated (Akter et al., 2017; Naala et al., 2017; Ong & Puteh, 2017).

Table 6 EFFECT SIZE	ORP	QMI
COMM		0.366
LOY		0.385
ORP		
QMI	0.208	
SAT		0.319

For SM evaluation, the main criteria are coefficient of determination (Henseler et al., 2016). The coefficient of determination illustrates that what percentage of variation that exist in endogenous variable is describable by the exogenous variables (Henseler, 2018). Ong & Puteh (2017) suggested 0.15 as the R-square's minimum acceptable value. As a last criterion, a predictive relevance test was conducted by using blindfold method, which was proposed in the Mikalef & Pateli (2017) study.

Table 7 R Square	R Square
ORP	0.526
QMI	0.851

DISCUSSION & CONCLUSION

This study tried to examine the association among organizational performance and quality management practices. The current study particularly emphasized to determine the effects of quality management practices on certain in-tangible human elements, (including commitment, satisfaction, loyalty), as well as to investigate the relationship between organizational performance and human-oriented elements.

This study is based on System theory as a theoretical framework, which comprised of four stages. In addition, the constructs employed in this study were taken based on the management accounting disciplines, operations management, and organizational psychology with major emphasis on higher education sector (Shamsudin et al., 2017). The stages of Quality management practices are: input stage, process stage (which concerns with human-oriented elements), the output stage which concerns with the performance outcome and the feedback stage which concerns with complaints or feedback received from the customers during or after the process. Customer feedback can be integrated in the next process as an input to improve the process quality. As a result, these four stages of system interact with the system environment to bring about desirable outcomes.

The findings of this research indicate a significant positive relationship between organizational performance (OP) and QMPs, which supports the hypothesis (H_1). This finding is in line with Sousa Jabbour et al. (2020) and Thomas (2017) studies, since all these scholars found quality management practices as a powerful tool which may enhance organizational performance. Thus, the results obtained in this research suggest that implementing QMPs in HEIs will likely bring higher organizational performance.

The present study was particularly designed for analyzing if there is any relationship between human-oriented elements (like, loyalty, satisfaction, and commitment) and the quality management practices (QMPs) among HODs of public universities in Indonesia. The result for this second research question also supported the proposed hypothesis (H_2). The study discovered a significant positive association among human-oriented elements and the QMPs. Similar findings were obtained in several prior studies including, Drugan et al. (2018), Hastings and Schwarz (2019) and Ngobo (2017). All these studies have reported a significant impact of QMPs adoption in improving employees' satisfaction. This finding is also consistent studies, since they emphasized to integrate participative and effective management which could effectively address the need to adopt employee-oriented approaches that may yield greater satisfaction among employees.

The third research question concerning the relationship between organizational performance and human oriented elements like loyalty and satisfaction was also supported by this study results. The results show that organizational performance is significantly and positively influenced by the human-oriented elements, thereby supporting the H_5 and H_7 hypotheses proposed in this study. Similar findings had been reported by Grødal et al. (2019) and Drugan et al. (2018) about satisfaction, and by Cheng (2016), and Lin & Kuo (2016), about Loyalty. The literature also confirmed these empirical findings and indicates that loyalty, commitment and satisfaction are the pre-requisites to achieve organizational performance at all levels of organization, particularly among the HODs.

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