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Building Quality Culture of Higher Education by Implementation of Internal Quality Assurance System (An Empirical Evidence)

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ABSTRACT

Since 1998, the Indonesian government's regulations on higher education institutions have moved towards granting autonomy, which includes accreditation based on the Internal Quality Assurance System (IQAS). The goal is for the introduction of SPMI to lead to a culture of excellent quality in higher education. This research seeks to bridge the gap in empirical studies connecting the adoption of IQAS with its impact on the cultivation of a culture of quality in higher education. The research employs quantitative techniques to gather data through a survey utilizing a Likert Internascale. Data was evaluated utilizing structural equation modeling and handled through the AMOS software. The findings indicated that integrating IQAS had a beneficial and noteworthy impact on quality culture in a higher education establishment.

KEYWORDS *quality culture, implementation of quality assurance, structural equation modeling*

INTRODUCTION

The government is responsible for overseeing higher education governance through the implementation of laws and regulations that determine the legality of higher education institutions. The Ministry of Research, Technology, and Higher Education, known as Kemristekdikti, envisions quality higher education through the enhancement of science and technology capabilities and innovation to boost the nation's competitiveness. To achieve the vision, the Directorate General of Learning and Student Affairs has implemented an IQAS development plan to promote a culture of quality education in Indonesia. Encouraging and scouting the implementation of Internal Quality Assurance System (IQAS) in all higher education institutions in Indonesia through college mentorship programs involving those that have successfully

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implemented IQAS. Consistent and ongoing utilization of IQAS will result in the establishment of a culture centered around quality. Hsu's (2017) study showed that quality assurance in Taiwan has led to transformation in higher education management and enhanced the professionalism of lecturers. Vettori et al. (2017) discovered that the introduction of a quality assurance system resulted in enhancements in organizational communication, information system, quality culture, transparency, and clarified roles and responsibilities.

The idea of quality originated in the field of manufacturing management and was later implemented in the realm of higher education. Quality is described as the alignment of performance with the standards established by producers for a product or service (Sudha, 2013). As stated in the ESG, the internal quality assurance system is a key component of the higher education quality assurance system, alongside external quality assurance and quality assurance institution. The internal and external quality assurance processes complement each other and are both essential for achieving cultural quality in the higher education system and within each individual institution of higher education. This study will center on SPMI and, according to Hsu (2017) and the ESG, it includes 5 stages: planning, executing, assessing, monitoring, and enhancing. The five steps form a cycle that operates continuously for ongoing improvement.

Based on Schein (2012), organizational culture is a shared basic assumption pattern within a group that shapes how individuals perceive, think, and express emotions regarding organizational matters. Organizational culture components can be categorized into visible aspects and unseen aspects. Basic assumptions are the deepest and unseen cultural element. The impact of this component on organizational values will in turn influence artifacts and human creations such as habits within the organization. The direction of influence varies, with organizational values also being impacted by the artifact, creation, and habits. It will have an indirect impact on fundamental organizational beliefs.

Quality culture in higher education can be defined as the culture within higher education institutions that focuses on the quality of education provided. IQAS regards quality culture as mindset, attitude patterns, and behavioral patterns in its provisions. According to Malhi (2013), a quality culture is a set of shared values, beliefs, and norms that prioritize customer satisfaction and continuous improvement of product and service quality. In a company that embraces a culture of quality, quality is integrated into all aspects of organizational life, such as recruitment and promotion, employee orientation and continuous training, compensation, management approach, decision-making, structure, operations, and office design.

According to Malhi (2013), the core values and beliefs of quality culture include focusing on the customer and recognizing that quality is determined by the customer. 2) Employee participation and empowerment involve empowering employees to effectively serve customers and instilling them with the confidence that they can achieve tasks. 3) Employee fears retaliation when communicating openly and honestly. Problem-solving and decision-making using factual information and data is dependable. 5) Embracing continuous improvement as a lifestyle. 6) Collaboration

within any company, tight partnership between supervisor and staff, and cooperation among different departments. 7) Manage processes by integrating quality into work processes. 8) Rewards and acknowledgments are given for meeting quality goals and displaying proper conduct. Powell in Njiro (2016) highlights seven key aspects that indicate a quality culture: 1) Consistency, 2) Beneficial principles, 3) Educational atmosphere, 4) Integrity, 5) Pragmatism, 6) Recognition or incentives, 7) Encouragement of employee innovation.

Numerous universities are adopting quality assurance practices similar to developed countries (Lim, 2006). This can be seen in a study conducted in Cyprus by Sari and Karaduman (2016) and research carried out on students in Romania by Prisăcariu & Vilcea (2015). Musa's (2019) study findings, based on descriptive statistics, showed that most employees at the Islamic University in Uganda believed that quality assurance was important for maintaining research quality. The implementation of quality assurance in Taiwan, as researched by Hsu (2017), has resulted in shifts in higher education management and heightened the professionalism of instructors. Vettori et al. (2017) found that the introduction of a quality assurance system resulted in enhancements in organizational communication, information systems, quality culture, transparency, and clearer roles and responsibilities. Prisacariu (2015) and Petrangeli (2020) also presented similar findings on the advantages and advancements of quality assurance.

According to Lapiņa et al. (2015), prioritizing the development of quality culture is crucial for Romanian higher education institutions as it is an internal institutional quality concern. Having a strong culture of quality is essential for ongoing improvement, maintaining a competitive edge, and achieving excellence in a knowledge-driven society (Adina-Petruţa, 2014). Vilcea (2014) suggests that establishing a high-quality culture will require a range of actions: fostering organizational mindsets and behaviors, fostering an atmosphere of trust and collaboration, establishing an inclusive environment involving all interested parties, enabling members to self-govern, and consistently enhancing procedures. Barbulescu, (2015) stated that there has been a change in the culture of quality in Romanian higher education over the past two decades, in line with the evolution of university quality assurance practices. Bendermacher et al. (2016) emphasized that there is a correlation between 'hard' (structural, managerial) and 'soft' (cultural, psychological) cultural factors of quality and outcomes such as the quality of the teaching-learning process, along with the benefit of research efforts. Gambi et al. (2013) performed a study to introduce a theoretical framework of the link between organizational culture and quality management methods. Future research studies are necessary to gather more data on how organizational culture strategies impact company performance through quality management.

Harvey and Stensaker (2008) suggest that quality culture involves turning quality assurance processes into regular habits that are integrated into daily routines. The findings from Jawad et al. (2015) indicate that establishing a culture of quality necessitates involvement and teamwork from every interested party. The findings of

Vettori et al. (2017) illustrate that two critical factors in quality assurance implementation are management information systems, essential for all managerial processes, and quality culture, crucial for engaging in quality improvement at different levels.

This study will examine how IQAS implementation impacts the formation of quality culture in higher education, as explained earlier. This research contributes by providing an empirical study on the implementation of quality assurance and cultural quality. Studying the application of quality assurance in higher education should always involve considering its origins in manufacturing before being implemented in higher education.

RESEARCH METHOD

Framework and Hypothesis

Based on the description in theoretical studies and previous research, a hypothesis was formulated that quality assurance has a positive and significant effect on the quality culture of higher education. The research framework is as in Figure 1. The dependent variable of the research is quality culture (Y), while the independent variable is IQAS (X). This research will develop IQAS measurement tools and higher education quality culture. IQAS consists of dimensions: 1) IQAS existence, 2) IQAS standard, and 3) IQAS implementation. The measurement of quality culture will be developed based on the dimensions: 1) quality first, 2) stakeholders in, 3) next process, 4) speak with data, and 5) upstream management.

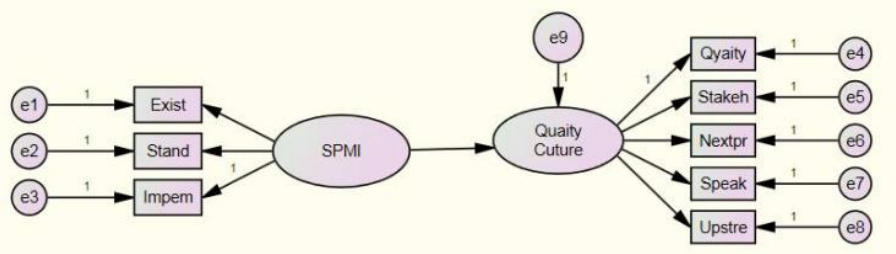

Figure 1. Research Framework

The study employs a survey approach and is explanatory in nature, seeking to clarify the relationship among variables through testing hypotheses. The identification of variables is grounded in theoretical reasoning. All instructors and educational staff at Mercu Buana University were included in the research sample, with withdrawals being conducted randomly and in proportion.

The variables utilized in this study are Implementation of the Internal Quality Assurance System (X) as an exogenous variable and higher education quality culture (Y) as an endogenous variable. In a self-rating questionnaire, all variables are organized for respondents to fill out based on their self-perception. The Likert scale ranges from

1 to 5 for measurement. The collection of primary data involved the completion of a questionnaire through self-reporting by the participants.

All variables are arranged in a questionnaire, which consists of dimensions which are then described in indicators. The research data is primary data collected using a questionnaire, which is filled in by self-report by the respondent. Filling out the questionnaire is based on their self-perception. The measurement scale uses a Likert scale of 1 to 5. The technique of submitting questionnaires is delivered directly to respondents, where this technique is better than sending questionnaires because it can minimize differences in interpretation between respondents and researchers.

Descriptive analysis was carried out by describing the results of respondents' perceptions of the research variables. Data is used to estimate models using structural equations (SEM) using the AMOS (Analysis of Moment Structure) program package version 15. Based on the results of data processing and discussion of research results, conclusions and suggestions are then drawn, which are answers to the research problem formulation. It is hoped that the research will provide suggestions regarding appropriate leadership behavior in implementing IQAS to successfully build a culture quality in higher education in Indonesian private universities.

RESULT AND DISCUSSION

Descriptive Statistic of Variable

Descriptive statistical analysis was used to evaluate conditions related to research variables based on respondents' perceptions of filling out the questionnaire. These descriptive statistics are presented in Table 1. Respondents' perceptions of the IQAS variable consist of three dimensions, namely: 1) IQAS existence, 2) IQAS standard, and 3) IQAS implementation. The IQAS dimensions have an average score showing a score below 4, namely 3.9091 for the first dimension of IQAS existence, 3.8084 for the second dimension of IQAS standard, and 3.5455 for the third dimension of IQAS implementation. This means that the one with the highest score is the first dimension IQAS existence. Overall, the three dimensions of the IQAS variable have a value below 4, so it can be concluded that on average . The respondents assessed that IQAS still needs to be improved.

Respondents' perceptions of the quality culture variable consist of 5 dimensions, namely: 1) quality first, 2) stakeholders in, 3) next process, 4) speak with data and 5) upstream management. Respondents' perceptions of the 5 dimensions are as presented in Table 1. The average value is 3.4825 for the quality first dimension, the average value is 3.5945 for the stakeholder in dimension, the average value is 3.2987 for the next process dimension, the average value is 3.6681 for the speak with data dimension and an average value of 3.3766 for the upstream management dimension. This means that the dimension that is most highly perceived by respondents is the speak with data dimension. However, overall the quality cuture dimensions have a value of less than 4, so the dimensions of the quality cuture variables still need to be improved.

Table 1. Descriptive Statistic of Variable

	Minimum	Maximum	Mean	Std. Deviation
IQAS				
IQAS Existance	1.00	5.00	3.9091	.97762
IQAS Standard	1.00	5.00	3.8084	.93095
IQAS Implementation	1.00	5.00	3.5455	.98080
Quaity Cuture				
Quality First	1.17	5.00	3.4825	.74645
Stakeholder In	1.00	5.00	3.5945	.83345
NextProses	1.00	5.00	3.2987	.94648
Speak with Data	1.14	5.00	3.6681	.77531
UpstreamManagement	1.00	5.00	3.3766	.92939

Source: Research Data Processed (2023)

Confirmatory Factor Analysis

Confirmatory analysis is an evaluation towards validity and reliability of variable measurement model. The validity test conducted by using loading factor criteria bigger than 0,5. Based on these criteria, the results of the validity test are as shown in Table 2. The dimensions of variables have factor loading values above 0.5, so it is stated that all dimensions are valid, and the standard IQAS dimensions have the highest loading factor value of 0.889. The dimensions of the quality culture variable also have loading factor values above 0.5, so it is stated that all dimensions are valid, and the culture first dimensions have the highest loading factor value of 0,869.

Reliability criteria applied by manual counting of variant extract with minimal criteria of 0,6. Based on these criteria, all variable measurements are reliable because they have a variant extracted value greater than 0.6.

Table 2. Validity and Reliability of Instruments Measurement

	Loading Factor	Validity	Variant Extract	Reliability
IQAS				
IQAS Existence	0.864	Valid	0.765	Reliable
IQAS Standard	0.889	Valid		
IQAS Implementation	0.510	Valid		
Quality Culture				
Quality First	0.869	Valid	0.766	Reliable
Stakeholder In	0.816	Valid		
Next Process	0.741	Valid		
Speak with Data	0.653	Valid		

Upstream Management	0.549	Valid

Source : Research Data Processed (2023)

Normality Test

Data normality test is conducted by using skewness and kurtosis criteria. and kurtosis and Mahalanobis index. Univariately. it meets assumptions with index less than 2. However. in multivariate basis. values of kurtosis and skewness exceed standard value. According to Mahalanobis index values. p1 and p2 value is less than 0.05. but the amount is less than 10 percent so data not be deleted.

Evaluation of Goodness-of-fit Model

Evaluation of Goodness of fit model conducted by using 6 criteria with cut-of value as we can see in Table 3. (Ferdinant. 2014). Value obtained from data processing with AMOS compared to cut-of value and concluded that from 6 criteria. there are 4 criteria shows good model while 2 criteria are marginal. From the evaluation result. model is worth to get further analysis.

Table 3.Goodness-of-fit Index

Goodness-of-fit Index	Cut-of Value	Value	Evaluation
CMIN/DF	< = 2.00	1.75	Good
GFI	>=0.90	0.897	Marginal
AGFI	>=0.90	0.826	Marginal
CFI	>=0.90	0.974	Good
PCFI	>0.50	0.667	Good
RMSEA	0.03 - 0.08	0.068	Good

Source : Research Data Processed (2023)

Hypothesis Test Result

Hypothesis test conducted by using P value criteria of 0.05. If P value is less than 0.005. research hypothesis is accepted and if the value bigger than 0.05. hypothesis is rejected. Hypothesis test result. as presented in Table 4. show that IQAS affect significantly towards quality culture.

Table 4. Hypothesis Test Result

			Estimate	S.E.	C.R.	P	Explanation
Quality Culture	<---	IQAS	0.507	0.096	5.287	***	Hypothesis accepted

Source : Research Data Processed (2023)

Discussion

Schein (2005) stated that organizational culture consist of three elements. The deepest and invisible cultural element is basic assumption. The existence of this

element described with vertical line to the top that affect organizational values. Organizational values affect artifact and human creation in organizational environment. Artifact is an observable element such as habits and artifact or human creation that has been done continuously also affect organizational values and basic assumption indirectly. Implementation of IQAS can be seen as habits planting in order to be a new culture. quality culture of higher education.

Empirical research that study about development of quality assurance in higher education has not been done much. especially in Indonesia. Research by Han (2017) study about development of higher education quality assurance in Taiwan. That empirical research states that implementation of quality assurance in Taiwan has brought change in higher education management and improving professionalism of the lecturer. According to quantitative and qualitative research of higher education in Austria. Vettori*et* et al. (2017) concluded that implementation of quality assurance system has brought improvement in organizational communication. information system. quality culture. transparency. also obvious roles and responsibilities

CONCLUSION

This study provides concrete proof that introducing an internal quality assurance system (IQAS) has a significant impact on the quality culture of higher education. This study provides concrete proof that the introduction of an internal quality assurance system (IQAS) has a significant impact on the quality culture of higher education. The evidence indicates that implementing a quality assurance policy in higher education helps foster a culture of quality in higher education. Improving descriptive statistics that are still below the IQAS standard will enhance the quality culture. IQAS standards are the key dimension for IQAS.

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