

The Influence of Internal Quality Assurance and Quality Culture on Performance of Higher Education Institution

Andi Arif Rifa'i

Faculty of Education (Tarbiyah)
IAIN Syaikh Abdurrahman Siddik Bangka Belitung
Pangkalpinang, Indonesia
andiarifrifai@gmail.com

Johar Permana, Aan Komariah, Asep Sudarsyah

Faculty of Education
Universitas Pendidikan Indonesia
Bandung, Indonesia
permanajohar@upi.edu, aan_komariah@upi.edu,
asepsudarsyah@upi.edu

Abstract—The aims of this study are, to evaluate the influence of the University's internal quality assurance on the culture of quality and organizational performance. The study was conducted at five State Universities in the Province of Bangka Belitung Islands. Survey design is used in data collection by using questionnaire instruments. The data analysis uses regression analysis and factor analysis (SEM/Structural Equation Modeling). The results showed that, the internal quality assurance of Higher Education had a positive and significant effect on Quality Culture and organizational performance. The quality culture has a negative effect on its performance of Higher Education organizations. This means that, to develop a quality culture and organizational performance, the universities need to improve their internal quality assurance.

Keywords—internal quality assurance; quality culture; organizational performance

I. INTRODUCTION

In the mid-1990s quality assurance at universities experienced resurgence in countries almost all over the world. The concept of quality control, quality assurance, and total quality management (TQM) has become a major topic in various universities. Beginning in 1980 the topic developed more on efficiency, then only in the 1990s did the topic change and be more concerned about quality [1]. From the various studies Sallis concluded that quality can only be displayed by producers who have a system that is a quality assurance system, which can support the production of goods and services consistently according to certain standards or specifications [2].

In the relation to the quality of higher education, Vlasceanu, Grünberg, & Pârlea see quality assurance as an evaluation process (assess, monitor, guarantee, maintain and improve) the quality of higher education systems, institutions or programs [3]. In Indonesia, the college quality assurance system is carried out on the basis of internal quality assurance, external quality assurance, and program implementation licenses [4]. Loukkola and Zhang see internal quality assurance as a process that aims to prepare an institution or program for external evaluation (i.e. preparing a self-evaluation process) or

monitoring tasks assigned to a special quality unit established. So that the internal quality assurance process is seen as a process that aims to prepare the institution or program for external evaluation, in this case the monitoring task is assigned (given) to a special quality unit. This means that internal quality assurance is closely related to external quality assurance [5]. Which, an external quality assurance system can function effectively only in situations when it is related to an internal quality assurance system [6].

Webb argues that the purpose of internal quality assurance is called the main mission term, namely: to promote public trust that quality provisions and standard awards in higher education are being maintained and improved [7]. This means that the internal quality assurance of higher education in the implementation (process) of education is based on quality standards (quality) which are continuously improved. Establishing or building a "culture of quality" is important for the organization, where attention to quality (quality) penetrates every aspect of the organization that is the top priority (high) for the successful implementation of quality assurance [8]. Ouchi and Wilkins note that the study of organizational culture has become one of the main domains of organizational research [9].

The quality of tertiary education in Indonesia can be said to have not been detrimental, indicated by the majority of universities only C-accredited and still very few who are A or B accredited [10]. This fact shows that the internal quality assurance of higher education institutions and quality culture has not been well developed. Therefore, there needs to be a more real government role. The role of the government in maintaining the quality of education cannot be seen as a pressure on the independence of universities in carrying out their programs. The aim of quality assurance of higher education is to guarantee the quality of the program, because with high quality education will produce an educated workforce, and ultimately will increase economic capital in the betterment of the State [11].

II. LITERATURE REVIEW

A. Concept of Variables

1) *Internal quality assurance*: Education quality assurance is essentially a systematic verification procedure that education meets the conditions expected to actualize goals [12]. In the context of higher education, quality assurance is seen as a collective process of universities as an academic institution to ensure that the quality of the education process is in accordance with the standards set [8]. Webb argues that the purpose of internal quality assurance is what he calls the main mission term, namely: to promote public trust that quality provisions and standard awards in higher education are being maintained and improved [7].

In general it can be stated that what is meant by internal quality assurance of higher education is planning, implementing, controlling, and developing quality standards consistently and continuously (continuous improvement or kaizen), so that internal and external stakeholders get satisfaction [13]. Such quality assurance is referred to as the college's internal quality assurance. Internal quality assurance of higher education is basically the policy and internal mechanism of a university to ensure that the objectives are fulfilled properly [12]. In addition, the internal quality assurance of higher education can be seen also as a system to manage and improve quality and to meet the demands of accountability [14].

Based on the theoretical concepts above, the internal quality assurance of higher education in this study is a collective process and systematic verification procedures through a system, policies and internal mechanisms to ensure the improvement of the quality of the educational process in accordance with the objectives and public accountability. The dimensions and characteristics of Higher Education Internal Quality Assurance (HE-IQA) are as follows;

- Decision Making; Decision making is based on data analysis and the process is carried out in a participatory (non-authoritative) manner.
- Responsibility; quality is a shared responsibility, and involves all staff in every quality effort.
- Service process; promote public transparency in the administration of higher education and everyone tries to satisfy their stakeholders.
- Standards and Procedures; Standards and procedures encourage continuous quality improvement and there are clear specifications of rules, responsibilities and procedures.
- Evaluation and Feedback; the *tri dharma* of higher education programs which is held regularly is evaluated and the results of the evaluation of program implementation are used as a basis for further development.

2) *Quality culture*: Edgar H. Schein sees culture as a concept that has a long history, where this concept has been used by lay people (in general) as words to show

sophistication, such as when we say that someone is very "cultured"[15]. While Sackmann conceptualizes culture as a set of ideas, themes and values expressed by certain social groups [16]. Culture in the context of the organization is a set of shared values, beliefs and norms that affect the way people think about thinking, feeling and behaving at work [15].

Organizational culture is a multi-story building consisting of a collection of artifacts, values, and assumptions that arise from the interaction of organizational members [16]. Organizational culture is also formed with beliefs, behaviors, norms, dominant values, rules and climate in organizations [17]. Various assumptions in interpreting the organization arise from various sources including from the context in which the organization is located (such as the state and industry) and the founder of the organization [18]. So that when culture is associated with the quality context, it will have a quality culture.

Epistemology of quality culture is a concept, which relates to the atmosphere of the performance of the task by looking at the best achievement of goal achievement. Furthermore Brings said that in a quality culture there are values, beliefs, attitudes, commitments, expectations, agreements, capacities, negotiations, participation, unity and trust [19]. From some of the concepts above, the quality culture in this study has meaning; a value, beliefs, hopes and joint commitments (individuals, groups and stakeholders) towards continuous quality improvement. Quality culture has the following dimensions and characteristics:

- Ownership; quality ownership and high expectations for organizational quality.
- Cooperation and Partnership; establishment of cooperation and work in partnership (partnership).
- Open to criticism; no suspicion between members of the organization and open acceptance of external judgments or criticisms.
- Evaluation for Development; self-reflection of individuals and taking initiatives to develop, assess and evaluate academic processes based on existing quality standards, and higher education institutions can use feedback to review quality policies in line with the vision and mission of the institution.
- Engagement; participation in every quality effort.
- Support; an adequate conduction of organizational and infrastructure environment, implementing a strong system of high values and standards of performance, and recognition by academics and administrators of the need for quality monitoring systems to ensure accountability and to facilitate quality improvement.

3) *Performance of higher education*: Higher education organizational performance is an organizational ability to streamline HR, processes, structure, teamwork and strategies to achieve goals in accordance with customer expectations. The concept is based on several definitions of organizational performance as stated by experts which means;

- Effectiveness and efficiency of resource use [20].
- Effectiveness of HR (human resources) in realizing capability [21].
- Organizational ability to use resources [22].
- Organizational effectiveness in identifying and translating customer demands / expectations [17].
- Organizational capacity to identify and implement appropriate strategies [23].
- Team effort in achieving goals [24].
- Ability to transform structure and how it works [25].
- Organizational ability to achieve financial results [26].
- Effectiveness of the management system (input, output and outcome) [27].

Organizational performance is a crucial aspect of every organization. Gavrea et al see Organizational performance as one of the most important variables in management research [28]. Performance in the opinion of Thomas S. Bateman can be measured by three basic categories namely nature, behavior and results. However, there is no general agreement in various literatures regarding the criteria used in assessing organizational performance [27].

B. Related Work and Hypothesis

Recent studies in the field of quality and quality assurance of higher education have resulted in an agreement in promoting a quality culture, often a quality culture is considered a synonym of "development, compliance and internal quality assurance processes" [5]. Accordingly, in the concept of Higher Education Quality Assurance which is the main target is the growth of quality culture, starting from; how to set standards, implement standards, evaluate the implementation of standards and continuously strive to improve standards (Continuous Quality Improvement) [4]. Innovation mediates (mediator variables) the relationship between culture and performance. There is a direct influence of culture and TQM on performance and also the indirect influence of culture on performance through TQM. Based on the study, hypothesis in this research are:

H1 = there is a positive influence of internal quality assurance on quality culture

H1 = there is a positive influence of internal quality assurance on organizational performance

H1 = there is a positive influence on quality culture on organizational performance

H1 = there is a positive influence on the quality culture on organizational performance through internal quality assurance

III. RESEARCH METHOD

This study uses a quantitative approach with correlation research design, called correlation research because it is designed to see the relationship between two or more variables

as indicated by the correlation coefficient. The sample in this study consisted of educators and educators in State Universities in Bangka Belitung. The data was taken with a questionnaire distributed to 350 respondents, while the number of respondents who returned was 162, and 155 questionnaires were filled in completely. Data analysis uses the help of Amos 20 software.

IV. RESULTS AND DISCUSSION

This study consists of three variables, namely internal quality assurance, quality culture, and organizational performance. The average picture of respondents' answers to each variable is as follows:

TABLE I. DESCRIPTION OF RESEARCH VARIABLES

Variable	Average
Internal Quality Assurance	
Decision-making	3.23
Responsible	3.6
Service process	3.33
Standard - Procedure	3.45
Evaluation - feedback	3.25
Total	3.37
Quality Culture	
Ownership	3.56
Cooperation	3.57
Openness	3.19
Evaluation for development	3.34
Involvement	3.34
Support	3.26
Total	3.38
Organizational Performance	
HR Effectiveness and Efficiency	3.28
Focus on the process	3.05
Structure Transformation	3.32
Teamwork	3.2
Strategy	3.32
Total	3.23

Based on Table 1 above, from the average respondent's answer to the five dimensions of internal quality assurance of higher education (HE); responsibility is a dimension that is included in the high category (intervals 3.35 - 4.12) while the other dimensions are in the medium category (intervals 2.57 - 3.34). This means that quality has become a shared responsibility of all elements of HE, but in decision making it is not based on data and participation from the existing academic community. Whereas in the quality culture variable, the highest dimension is the existence of cooperation in higher education institutions. But openness has not become a growing value in campus culture. Furthermore, from the total average variable, organizational performance shows that the performance of the existing university organization is in the medium category.

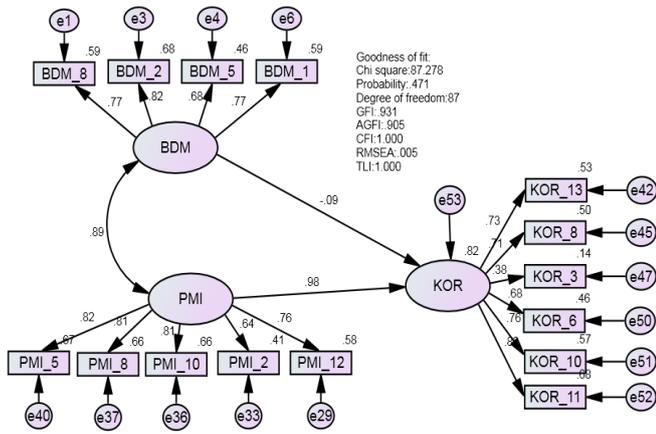


Fig. 1. Model of the effect of internal quality assurance (PMI) and quality culture (BDM) on organizational performance (KOR).

The above model (figure 1.) has fulfilled the goodness of fit criteria, namely the probability value $0.471 > 0.05$, GFI value $0.931 > 0.9$, AGFI value $0.905 > 0.9$, CFI value $1.00 > 0.95$, and RSMEA $0.05 < 0.08$, which means that the model has met all the criteria of goodness of fit. Based on the above analysis, it can be concluded that Quality Culture influences organizational performance through internal quality assurance. This is in line with the research conducted by Valmohammadi & Roshanzamir which concluded that culture has an indirect effect on performance through TQM [26]. TQM and PMI are the same two concepts, namely the concept of internal quality assurance of an organization or institution.

TABLE II. REGRESSION WEIGHTS

	Estimate	S.E.	C.R.	P	Label
BDM <--- PMI	.755	.087	8.658	***	par_15
KOR <--- PMI	.784	.174	4.495	***	par_8
KOR <--- BDM	-.081	.184	-.441	.659	par_9

Based on the regression price table above (table 2), the estimated effect of internal quality assurance on the quality culture is 0.775 and P value is $0.00 < 0.01$, the effect is significant. Likewise, internal quality assurance for organizational performance has a significant effect on organizational performance with an estimated value of 0.784 and P value $0.00 < 0.01$.

TABLE III. STANDARDIZED REGRESSION WEIGHTS

	Estimate
BDM <--- PMI	.892
KOR <--- PMI	.981
KOR <--- BDM	-.086
BDM_2 <--- BDM	.824
BDM_5 <--- BDM	.679
PML_2 <--- PMI	.641
PML_10 <--- PMI	.810
PML_8 <--- PMI	.815
KOR_8 <--- KOR	.708
KOR_3 <--- KOR	.378
BDM_8 <--- BDM	.768

TABLE III. Cont.

	Estimate
BDM_1 <--- BDM	.770
KOR_11 <--- KOR	.824
KOR_10 <--- KOR	.758
KOR_6 <--- KOR	.681
KOR_13 <--- KOR	.726
PMI_5 <--- PMI	.819
PMI_12 <--- PMI	.760

Based on the table above (table 3), the factors (manifest variables) of each construct variable in the model can be described as follows:

- Loading factor of constructor variable with the highest internal quality is PMI_5 (regression weight equal to 0.819)
- Loading factor of the highest quality culture construct variable is BDM_2 (regression weight equal to 0.824)
- Loading factor of the highest internal quality assurance organization performance variable is KOR_11 (regression weight of 0.824)

The results of this study support what is the goal of the government in developing the internal quality assurance of universities to improve institutional performance. The results of this research also support the concept that explains that internal quality assurance aims to develop a quality culture. But the analysis above shows that the quality culture does not have a direct influence on organizational performance but influences through internal quality assurance.

V. CONCLUSION

This research has proven that internal quality assurance conducted by universities has a positive and significant effect on the quality culture and organizational performance. Whereas the quality culture does not have a significant effect on organizational performance, but indirectly influences through internal quality assurance. Therefore, to be able to improve organizational performance, higher education institutions must develop effective quality assurance and quality culture. This means that organizational performance can improve if internal quality assurance works well and is supported by a quality culture that develops within the organization.

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