

Developing Criteria for Assessing Quality Culture in Universities: Evidence from Four Universities in Vietnam

Xuan-Ngoc-Thi Nguyen^a, Giang-Linh-Thi Le^b, Ngoc-Duc Le^c, Trung Tran^d, ^aTra Vinh University, Tra Vinh 940000, Vietnam, ^bHo Chi Minh City University of Food Industry, Ho Chi Minh city 700000, Vietnam, ^cCompany of Assurance, Measurement and Evaluation for Educational Quality (CAMEEQ), Vietnam, ^dVietnam Academy for Ethnic Minorities, Hanoi 100000, Vietnam, Email: ^angocxuan@tvu.edu.vn, ^bgianglthl@hufi.edu.vn, ^cngocld2000@gmail.com, ^dtrungt1978@gmail.com

Quality culture plays an important role in the development of higher education institutions. The purpose of this research is to develop a set of criteria for the assessment of the quality culture in Vietnamese universities under the sustainability value approach in five fields: 1) the academic field, 2) the social field, 3) the human field, 4) the cultural field, and 5) the field of landscape and material facilities. Data was collected from 356 respondents from 4 universities in the Mekong Delta region, Vietnam by employing both qualitative and quantitative methods. The results show that the criteria has good convergence in each standard for assessment of quality culture in universities, the standard academic field has the best implementation level compared to other standards/fields. The self-assessment results according to the proposed standards show that the current status of quality culture development of the university is at the progress stage.

Key words: *Set of Criteria for Assessment, Quality Culture, Sustainability Value Approach, Education, Vietnam.*

Introduction

Quality management issues in general attract attention from many managers and they constantly provide philosophies, models and improve solutions to manage the quality and effectiveness (P. K. Ahmed, Loh, & Zairi, 1999; Coates & Shah, 2017; Hung, 2014; the European University Association, 2005, 2006, 2007). Previous researches have pointed out three

typical models for improving the quality and effectiveness management (Schein, 1984). With the philosophy that it is necessary to prevent low-quality products from being released to the market, they provided a Quality Management Model based on the Quality Control (QC-Quality Control). This model is mainly aimed at eliminating products that do not meet the quality requirements so as not to destroy the brand of the organisation. The solution for this model is inspection (Fang-shun, 2006; Juan-jie, 2004; Sousan, 2019). However, managers realised that a lot of resources were being wasted on poor-quality products, therefore, the Quality Assurance (QA) model was born. This model is mainly aimed at preventing the production of poor-quality products (Nhung, Thanh, & Nguyen, 2019).

In the market economy, besides quality assurance (QA), it is also necessary to improve the quality continuously in order to meet the requirements of a fiercely competitive economy. Since then, the philosophy of continuous quality improvement is born and expressed through the total quality management (TQM) model. The effective solution to initially implement TQM is still ISO or Quality Testing, but the content of quality improvement and continuous performance is also added. In the process of deploying management under TQM, it is realised that the optimal solution to thoroughly implement TQM is to build organisational culture (Lau & Tang, 2009). The purpose of this solution is thanks to the building of quality culture that all members of the organisation join hands to improve quality and effectiveness continuously, in order to ensure that the organisation exists and develops sustainably.

For universities, quality culture will help higher education institutions easily adapt to changes of the national and international quality standard system; demonstrate the quality commitment to society; establish a quality management environment, and; obtain a clear orientation in developing human resources (Yorke, 2000). Thereby it can be understood that building and developing quality culture is for the universities to internally communicate its responsibilities in the most effective way for quality assurance and the most sustainable development today.

In Vietnam, the building and development of quality culture is a major concern of higher education because it is one of the decisive factors for the sustainable development of each university as well as the whole system. In fact, the development of quality culture in universities of Vietnam is a relatively new issue, although there are new developments, it still reveals many limitations and difficulties in the process of deployment and organisation of implementation. Development of quality culture in universities is mostly limited to quality control (Ha, 2017; Ha & Quang, 2014; Hao, 2015; San, 2013; Tran, 2019)

The article proposes criteria for assessment of quality culture in universities according to the value approach that helps universities determine the stage of quality culture development of the university, thereby build a plan to develop quality culture.

Literature review

Approaching Quality Culture According to the Value System

The values that create an organisation's culture and are emphasised when talking about the culture of an organisation identify the way to understand values (Dimmock & Walker, 2005). Values are principles and beliefs that orient human behaviours and relationships. The organisation's basic values are accepted and shared by its members. Once values direct toward human behaviour, they create a habit of action in an organisation of people with the same values and beliefs create the empathy, cooperation and intimacy, and that is the positive culture of an organisation (Ly, 2009)

The positive cultural values of the university are reflected in the university's daily life when building goals, plans of action, process of direction, implementation and the assessment of results is towards the interest of learners, choosing the interest of learners as the centre of every action, the cultural values also express in the words of speech and in the daily communication of the university's members (Ly, 2009). Therefore, universities often consider values such as cooperation, safety, sincerity, openness, mutual respect, responsibility, academic freedom, fairness, equality etc. as core values directing their behaviours.

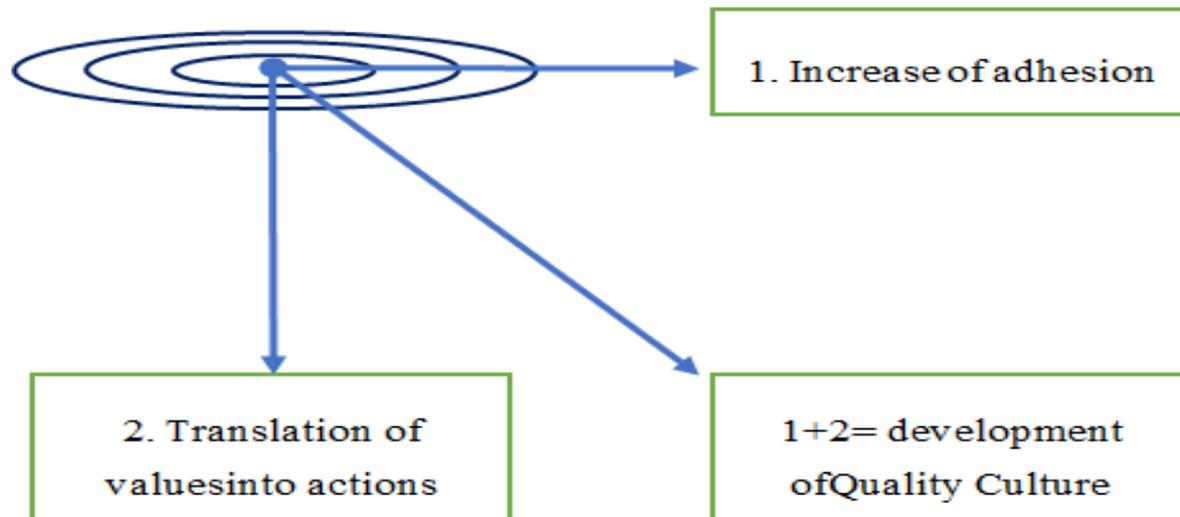
According to a survey by Sunderland University, the values dignified by teachers include: Creativity, adaptation, honesty, sharing and benefits (Smith P, 2005). He said that culture from the perspective of declared values such as "product quality" or "performance leadership" are the values and principles that an organisation declares, follows and strives to achieve (Schein, 1984).

According to the approach to quality culture by the European University Association, quality culture is an internal organisational culture, built from the bottom up, with mechanisms to continuously improve quality at two levels: (i) The first is at the university level. The university level should obtain an appropriate management system to constantly improve the quality and connect its members. At this level, quality is seen as a process of continuous improvement throughout the system, across all sectors. (ii) The second is at the individual level. This level should obtain a system of values, beliefs, desires and commitments which is shared among the members. At the individual level, quality is seen as a process of continuous transformation from low to high within each individual (European University Association, 2006).

According to Lanagès, J (2009) quality culture is formed by values, thus, building quality culture means turning such values into practical actions of individuals and collectives in higher education institutions. The formation and development of quality culture is identified by two levels: (i) At the surface level, it is necessary to observe how people agree on values and

participate in quality issues; and (ii) At the depth level, the change to behaviours is associated with participation at the surface level (Figure 1).

Figure 1. Schematic development of Quality Culture in two dimensions (Source: Lanagès, 2009)



In addition, by the system of quality culture values in universities on the basis of integrating the concept of quality culture, based on the sets of quality standards by the Vietnam Ministry of Education and Training and the author (Ngoc, Le, & Xuan, 2012) have proposed a model of quality culture including 5 quality environmental components (academic, social, human, cultural and natural environment) of a higher education institution corresponding to 5 standards and thereby building 19 criteria and models that imply the culture of the organisation and activities of Quality assurance, it is necessary to implement and serve as a basis for assessing the level of explicitly expressing quality culture in a university or an organisation.

According to the European University Association (2007) a model of quality management and quality culture determination was provided based on two components. Firstly, the technical component (quality management) is the expression of action in the quality management system, including tools, mechanisms and processes for measuring, assessing, ensuring and improving quality. Secondly, the cultural component (quality commitment) is an expression of awareness, a set of common values, beliefs, expectations and commitments towards the quality of individuals and collectives. The values of quality culture which wish to achieve from these two components are information, participation and belief (Figure 2).

Figure 2. Quality management and Quality culture (Lieu, 2012)



Therefore, two factors can be considered as two expressions of quality culture: quality management and quality commitment. The two factors are closely attached by 3 quality values, including: information, participation and belief. In addition, the piece of research "Changing culture in higher education" by the author Ehlers (2009) has introduced the model of quality culture in the context of organisational culture including 4 important components: 1- Structure (representing the organisation's quality system), 2- Capacity (representing organisations that unite the quality mechanisms into culture), 3- Quality Culture (representing the expressions, manifestations and rituals of the organisation), 4- Factors of linking (linking factors through participation, information and beliefs) and shaping some values of quality culture in the context of the organisation. It is concluded that quality culture is a part of organisational culture, therefore, building quality culture is attached to building organisational culture.

From the above analysis, in our opinion, the value of a higher education institution is the cultural norm, attaching importance to quality, autonomy, academic freedom, responsibility, importance to learners, whereby all actions and words are for the quality, transparency and effectiveness of the university's activities. Therefore, the university's value system can be considered as a cultural norm, attaching importance to quality, autonomy and academic freedom, responsibility, attaching importance to learners, all actions and words are for quality, transparency and effectiveness in university's activities (Lieu, 2012).

Thus, through the research on quality culture with advantages of bringing its own values, it has been found that the value in an organisation is the foundation for building quality culture in universities today. In this research, we build the criteria to assess quality culture according to the value approach based on the foundation of organisational culture.

Model of Quality Culture in Universities

On the basis of referring to the models of quality culture, the approaches to the building of quality culture by the authors at home and abroad, based on the vision, mission and core values of a number of domestic and foreign universities, the author chose the model of quality culture in the higher education institution of Ngoc et al. (2012), The approach to organisational culture (Ehlers, 2009) is on the basis of integrating the concepts of quality culture, requirements from the quality testing standards of Vietnamese Ministry of Education and Training and the quality testing standards of AUN, ABET. This can be considered as an approach to building quality culture in universities in a holistic way, covering all factors that affect the quality culture, in accordance with the concept of quality culture by S. M. Ahmed (2010) and Lanarès (2008) analysed above. We propose a model of quality culture with the structure shown in Figure 3:

Figure 3. Model of quality culture in Vietnamese universities



The model of quality culture structure in universities includes 3 levels: I) Level 1: Vision, mission and core value system of the university are the foundation for creating organisational culture. II) Level 2: Organisational culture that links activities of quality assurance to form quality culture. Quality culture is a component of the overall organisational culture which is upgraded to a higher level. III) Level 3: Quality culture includes 5 quality fields of the university made up of the university's vision, mission, core values, which are: Academic field, social field, cultural field, human field, and field of landscape and material facilities. These are the fields of building quality culture in universities. All the above components must be attached together to form a standard frame for quality culture in universities.

Methods

Research Methods

This research uses a combination of document analysis, in-depth expert interviews and surveys to determine the framework of quality culture in Vietnamese universities. The research is carried out in a 4-step process: (i) Step 1 - proposing a set of criteria for assessing quality culture including 5 criteria and consulting experts, combined with interviewing with researchers who have expertise in the field of quality culture in universities, making suggestions and adjusting the implication of each proposed standard/criterion. (ii) Step 2: Using a questionnaire to survey managers and lecturers at 4 universities in the Mekong Delta about the necessity and feasibility of the standards. (iii) Step 3: Adjusting the set of standards based on the survey results of universities and expert opinions. (iv) Step 4: Testing the set of standards at selected universities and proposing solutions for the universities to self-assess the development of quality culture at their units.

In the first step, documents on quality culture in universities are reviewed to determine the model of quality culture in universities. Based on analysis and assessment of documents, the model of culture quality in universities consists of 3 levels and the general structure for a set of quality standards has been determined. Next, we consult 36 experts and practical managers at three universities in Vietnam. In centralised group interviews, a list of standards and criteria is proposed based on a previous literature review. The interviewees are then asked to comment on the standards and criteria in the list;

In step 2, a list of standards and criteria is classified and then converted into a questionnaire. 5 standards and 20 criteria are identified as important factors in assessing the quality culture of Vietnamese universities (Table 1). These criteria have been included in the fields: Academic field; Social field; Human field; Cultural field; field of landscape and material facilities

Table 1: Standards-criteria

1-Values belonging to: Academic field
1.1 Creative freedom in scientific research and teaching activities;
1.2 Honesty in researche and publication of scientific products;
1.3 Attaching importance to the implementation of scholarly transmission in higher education institutions;
1.4 Giving prominence to the spirit of cooperation, sharing the results of scientific researches and teaching.
2- Values belonging to: Social field
2.1 Affirming the university's vision, mission and core values;
2.2 Transparency in mechanisms for assessing the work quality of individuals and units at the university;
2.3 Giving prominence to the autonomy and social responsibility of the university;
2.4 Ensuring the publicity and transparency in financial management.
3- Values belonging to: Human field
3.1 Democracy in the management and operation for university's activities;
3.2 Ensuring benefits according to the policy and regime for the contingent of officials, lecturers, staff and learners;
3.3. Giving prominence to the responsibilities of officials, lecturers, staff and learners to the university and society;
3.4 Raising high the spirit of unity and solidarity in units, among units, individuals and society.
4- Values belonging to: Cultural field
4.1. Officials and students have deep faith in the values established in the organisation and actively implement those cultural values;
4.2. Establishing codes of conduct, cooperation, support, respect and civilised, cultural lifestyle;
4.3. Honouring good traditions of the university combined with national cultural identities;
4.4. Attaching special importance to cultural activities in the university; cultural exchange, cooperation, integration with the domestic and foreign community.
5- Values belonging to: Field of landscape and material facilities
5.1. Ensuring that the architecture and landscape of the university is green, clean and beautiful;
5.2. Ensuring that material facilities, equipment, lecture halls and classrooms are adequate for teaching, learning and researching on quantity, quality and artistic standards;
5.3. Ensuring the library culture (environment, conduct, communication, reading culture ...)
5.4. Taking care of material facilities for accommodation, playing and cultural activities for members of the university.

The questionnaire is then completed with 64 indicators. The questionnaire is delivered to the managers and lecturers of 4 universities in the Mekong Delta to determine the necessity and feasibility of the set of standards by 2 methods: assessment by indicators and assessment by evidences with a rating scale of increasing implementation level according to the 5-level scale in order to assess the current status of development of quality culture in universities (Level 1: The university has not been deployed yet, there are no results of activities at the moment; Level 2: This activity is still in the planning stage, with no results; Level 3: The university has deployed, not yet clearly developed; Level 4: The university has deployed with initial developments; Level 5: The university has deployed, with clear evidence and good developments).

In step 3, we adjust the set of standards based on the survey results in universities and expert opinions. Then, testing step 4 with the set of completed standards at selected universities and proposing solutions for universities to self-assess the development of quality culture at their units.

We differentiate 5 stages of building quality culture based on the average score in the process of self-assessment or external assessment according to the proposed set of standards: 1.0-1.9: Preliminary stage; 2.0-2.9: Progress stage; 3.0-3.9: Promising stage; 4.0-4.4: Development stage; 4.5-5.0: Completion stage.

Sampling Methods

Currently, Vietnam has two national universities, three regional universities, fourteen key universities and more than 100 other universities and provincial universities (Thuan, Thanh, Loc, Thanh, & Trung, 2019). In this research, 320 managers and lecturers from four universities in the Mekong Delta are invited to participate in the research (Tra Vinh, Can Tho, An Giang and Dong Thap University). These universities are similar in terms of training scale and training fields in the Mekong Delta (more than 10,000 students and multidisciplinary training). The authors received responses from 320 respondents (50 managers and 270 lecturers) of four universities.

Data Analysis

The responses from the survey are coded and entered into the SPSS statistical software (Version 20) and checked for reliability using the reliability estimate Cronbach's α ($\alpha = Np/[1 + (N-1)]$). A coefficient with high reliability is achieved, with the estimate of Reverse Cronbach α ranging from 0.73 to 0.94 (≥ 0.6) (Table 2). The correlated estimates of total corrected items ranged from 0.4 to 0.7 (> 0.3), also showing a good correlation between variables.

Table 2: Estimating the reliability of variables

Factors	Observed Variables	Cronbach's α	Corrected Item-Total Correlation
C1.1	3	0.929	0.448
C1.2	3	0.768	0.461
C1.3	3	0.887	0.498
C1.4	4	0.946	0.435
C2.1	3	0.733	0.619
C2.2	4	0.929	0.551
C2.3	3	0.885	0.580
C2.4	3	0.860	0.600
C3.1	3	0.890	0.608
C3.2	3	0.923	0.476
C3.3	4	0.796	0.532
C3.4	3	0.955	0.600
C4.1	3	0.941	0.619
C4.2	3	0.809	0.618
C4.3	4	0.770	0.554
C4.4	3	0.937	0.618
C5.1	3	0.735	0.444
C5.2	3	0.855	0.459
C5.3	3	0.844	0.535
C5.4	3	0.732	0.484

Using the EFA method with Varimax rotation to analyse 20 observed variables assessing the value fields of quality culture (standard). The number of pre-determined factors is 5 corresponding to 5 fields of quality culture in the structure of quality culture. The factors (concepts) after being checked and assessed by EFA method include: value under academic field (standard 1), value under social field (standard 2), value under human field (standard 3), value under cultural field (standard 4), and value under field of landscape and material facilities (standard 5). Verifying Cronbach's Alpha for observed variables in the factors fluctuating in the range [0.859: 0.916]. The results show that the observed variables all have relatively high correlation coefficients to the total variable. This means that the observed variables in each factor are homogeneous and all contribute to the reliability of those factors. Therefore, the coefficients meet the requirements of the scale and have a convergence value of the criteria with standards for assessing quality culture in universities.

In assessing the convergence of the research by the Exploratory Factor Analysis (EFA), the number of pre-determined factors is 5 corresponding to 5 fields of quality culture in the structure of quality culture (see Table 3 below).

Table 3: Results of the EFA exploratory factor analysis about the necessity of the criteria

Observed variables	Factors				
	Value under social field	Value under cultural field	Value under human field	Value under field of landscape and material facilities	Value under academic field
C2.4	.881				
C2.1	.863				
C2.3	.805				
C2.2	.774				
C4.1		.852			
C4.3		.799			
C4.2		.787			
C4.4		.733			
C3.1			.871		
C3.3			.792		
C3.2			.775		
C3.4			.738		
C5.1				.867	
C5.4				.791	
C5.2				.776	
C5.3				.747	
C1.2					.829
C1.3					.785
C1.1					.732
C1.4					.722

The KMO coefficient is 0.841 (KMO coefficient is a criterion to consider the conformance of EFA, according to Hair et al. (2006), when $0.5 \leq KMO \leq 1$, the factor analysis is conformable with research data). The result of verifying Barlett's is approximately 3,717 with significance level of $\text{sig} = 0.000 < 0.05$, (reject the hypothesis H_0 : observed variables are not correlated with each other in the total), which proves that the data used for the factor analysis is perfectly conformable. The average variance extracted is 72.66% ($> 50\%$), which means that 5 factors can explain 72.7% of the variation of observed variables. Numbers in the Rotated Component Matrix represent the factor loading of each observed variable. In order for the EFA method to obtain the results considered as important and practically significant, only the observed variables with factor loading of > 0.3 are retained, but the best is greater than 0.5 (Trong & Ngoc, 2008).

In order to determine which independent variables are implemented well compared to the general results, the author uses a stepwise selection method to determine the conformable variables that can build regression equations, the author uses the enter selection method (putting all the variables conformable to the regression model in one turn), assessing the model's conformity and the difference significance of dependent variables with the differences of independent variables.

Results and Discussion

Using the Evidence-Based Assessment Forms to Assess the Level of Building Quality Culture according to the Set of Standards will Give High Reliability, Better Self-Assessment Effectiveness than the Indicator-Based Assessment Forms

The survey results of the first self-assessment by university officials and lecturers selected for self-assessment show that according to the stage scale of building quality culture in universities proposed by us: 1- *Indicator-based* self-assessment of quality culture of the proposed set of standards, the university selected for testing is at the *promising stage*; 2- *Evidence-based* self-assessment of quality culture of the proposed set of standards, the selected university for testing is only at the *progress stage* (see Table 4 below).

Table 4: Average score of the standard between indicator and evidence

Standard	Indicator	Evidence	Level of significance
Standard 1	3.3	2.9	0.000
Standard 2	3.2	3.0	0.000
Standard 3	3.0	2.8	0.000
Standard 4	3.1	2.8	0.000
Standard 5	3.3	2.7	0.000
Total	3.2	2.8	0.000

From the self-assessment results, the author conducts the second assessment test. The purpose is to find the stability of two ways of assessment through indicators and evidence. The surveyed subjects are 320 officials and teachers who took part in self-assessment at the first time. We conducted the survey, processed the data and carried out the correlation analysis to find the correlation between two assessments. The results are in Table 5:

Table 5: The correlation between two assessments

Correlation coefficients	1 st and 2 nd indicators	1 st and 2 nd evidence
Pearson correlation	.719**	.962**
Level of significance (2 sides)	.000	.000

** The correlation is significant at level 0.01 (2 sides).

Through testing the results of the second self-assessment, it shows that the *evidence-based* self-assessment method provides more stable results than the *indicator-based* assessment method, the correlation coefficient between the two assessments by evidence is quite high (Pearson correlation by evidence = 0.962, by indicator = 0.719). Thus, in practice, when implementing the self-assessment for the level of building quality culture in a university, we should use an assessment form by evidence that will give high reliability, better self-assessment effectiveness, and determine the accuracy for the level of building quality culture according to the set of standards and thereby developing a plan of action/strategy to build quality culture will be more authentic.

Standards in Academic Field Have the Best Implementation Level Compared to Other Standards/Fields to Quality Culture of a Higher Education Institution in the Mekong Delta

The analysis process results in a regression coefficient table for standards/fields (see Table 6).

Table 6: Estimating regression coefficients of the standards

Model	Unstandardised coefficient		Standardised coefficient	t	Sig.	Collinear statistic		
	B	Standard error	Beta			Acceptance level	VIF	
1	(Constant)	26.302	3.644		7.219	.000		
	standard 1	1.053	.055	.418	19.228	.000	.833	1.201
	standard 2	1.131	.083	.318	13.561	.000	.712	1.404
	standard 3	.941	.071	.310	13.165	.000	.707	1.415
	standard 4	1.186	.067	.390	17.619	.000	.802	1.247

The regression equation is built based on a standardised Beta coefficient:

$$\text{Quality culture} = 0.418 * \text{standard 1} + 0.318 * \text{standard 2} + 0.31 * \text{standard 3} + 0.39 * \text{standard 4} \quad (1)$$

From the regression equation (1) we find that: Standard 1/academic field have the best implementation level compared to other standards/fields to quality culture in a higher education institution, which reflected that the assessor has clearly realised the main value of the higher education institution. Standard 3/ human field/ democracy at the university should be paid more attention because the results show that the surveyed university implementing this value is at a very low level. Based on the results of self-assessment according to the proposed set of standards, it indicates that the current status of developing quality culture in the university is in the *progress* stage. From this result the university should build a strategic plan to develop and select the criteria with a good implementation level to quality culture in universities. The criteria that have not met requirements should orient the development in the next period.

Analysing the Implementation Level of the Criteria (Independent Variable) to Each Standard of Quality Culture (Dependent Variable) from the Test Results at Universities.

For criteria relating to values under the academic field, social field, human field, cultural field, and field of landscapes and material facilities, the regression coefficients found for the criteria of the field are shown in Table 7.

Table 7: Estimating regression coefficients of standard 1, 2, 3, 4, 5

Model	Unstandardised coefficient		Standardised coefficient	t	Sig.	Collinear statistic		
	B	Standard error	Beta			Acceptance level	VIF	
1	(Constant)	5.378	.591		9.101	.000		
	Criterion1.1	.977	.079	.291	12.427	.000	.421	2.375
	Criterion1.2	1.406	.079	.435	17.714	.000	.381	2.622
	Criterion1.4	1.006	.069	.363	14.525	.000	.369	2.710
2	(Constant)	2.173	.964		2.254	.026		
	criterion2.1	.992	.067	.364	14.693	.000	.864	1.157
	criterion2.2	1.080	.066	.412	16.461	.000	.848	1.180
	criterion2.3	1.658	.082	.521	20.258	.000	.803	1.246
3	(Constant)	-.402	.740		-.544	.588		
	criterion3.1	1.354	.065	.399	20.782	.000	.795	1.257
	criterion3.3	1.609	.072	.511	22.399	.000	.563	1.777
	criterion3.4	.901	.071	.301	12.650	.000	.516	1.939
4	(Constant)	3.999	.914		4.375	.000		
	criterion4.2	1.573	.077	.524	20.496	.000	.894	1.119
	criterion4.3	1.121	.078	.437	14.324	.000	.629	1.589
	criterion4.4	.843	.087	.300	9.636	.000	.603	1.659
5	(Constant)	6.524	.876		7.445	.000		
	criterion5.1	1.005	.059	.429	17.074	.000	.939	1.065
	criterion5.3	1.312	.057	.604	23.218	.000	.877	1.140
	criterion5.4	1.092	.078	.355	14.082	.000	.932	1.073

The regression equation is built based on a standardised Beta coefficient:

$$\text{Standard 1} = 0.291 * \text{criterion1.1} + 0.435 * \text{criterion1.2} + 0.363 * \text{criterion1.4} \quad (2)$$

From the regression equation (2), we find that criterion 1.2 on the "Honesty in research and publication of scientific products" has the best implementation level for values under academic field, which reflects the current conception that is the main value of a higher education institution. Criterion 1.1 on the "Creative freedom in scientific research and teaching activities"

has the lowest implementation level compared to the impact of other criteria on the academic field.

The regression equation is built based on a standardised Beta coefficient:

$$\text{Standard 2} = 0.364 * \text{criterion2.1} + 0.421 * \text{criterion2.2} + 0.521 * \text{criterion2.3} \quad (3)$$

From the regression equation (3), we find that criterion 2.3 on "Giving prominence to the autonomy and social responsibility of the university" has the highest implementation level, which reflects that it is the main value in building quality culture. Criteria 2.1 on "Affirming the vision, mission and core values of the university" has the lowest implementation level compared to the remaining criteria for the social field, which reflects the current conception that this criterion of the university is still low.

The regression equation is built based on a standardised Beta coefficient:

$$\text{Standard 3} = 0.399 * \text{criterion 3.1} + 0.511 * \text{criterion 3.3} + 0.301 * \text{criterion 3.4} \quad (4)$$

From the regression equation (4) we find that the criterion 3.3 on "Giving prominence to the responsibility of cadres, lecturers, staff and learners for the university and society" has the best implementation level to the human field, which reflects the current conception that is the sense of responsibility of members of the university organisation, is important to the human field, is the main value in the human field of the university. The criterion 3.1 on "Raising high the spirit of unity and solidarity in the unit, among units, individuals and society" has the lowest implementation level to the human field, which reflects the current status of the university on their value of solidarity spirit in the unit, among units, individuals and society is still very low. This indicates that the surveyed university has not attached special importance to this value.

The regression equation is built based on a standardised Beta coefficient

$$\text{Standard 4} = 0.524 * \text{criterion 4.2} + 0.437 * \text{criterion 4.3} + 0.3 * \text{criterion 4.4} \quad (5)$$

From the regression equation (5) we find that the criterion 4.2 on "Establishing codes of conduct, cooperation, support, respect and civilised, cultural lifestyle" has the best implementation in the cultural field, which shows that the current concept is a positive value on the university's culture and this is also the main function of a higher education institution. The criterion 4.4 on "Attaching special importance to cultural activities in the university; cultural exchange, cooperation, integration with the domestic and foreign community" has the lowest implementation level compared to the remaining criteria of the cultural field, which shows that the current status of the university has not attached importance to this issue.

The regression equation is built based on a standardised Beta coefficient:

$$\text{Standard 5} = 0.429 * \text{criterion 5.1} + 0.604 * \text{criterion 5.3} + 0.355 * \text{criterion 5.4} \quad (6)$$

From the regression equation (6) we find that the criterion 5.3 on "Ensuring the library culture (environment, conduct, communication, reading culture ...)" has the highest implementation level compared to other criteria, which reflects that the current conception of the university has appreciated and considered it as a value concerned by the university. The criterion 5.4 on "Taking care of material facilities for accommodation, playing and cultural activities for members of the university" has the lowest implementation level to the results of the field of landscape and material facilities, showing that this current status of the university has not been paid enough attention.

Conclusion and Recommendations

Through self-assessment results according to the proposed set of criteria, it shows that the current status of quality culture development in selected universities is at the progress stage. From such results the universities should build a strategic plan to develop and promote criteria with a good performance level to quality culture of the university, the unqualified criteria should be considered for development in the next period. The results from the second self-assessment show that the *evidence-based* self-assessment method produces more stable results than the *indicator-based* assessment method, the correlation coefficient between the two evidence-based assessments is quite high (Pearson correlation by evidence = 0.962, by indicator = 0.719). Therefore, when using the set of self-assessment standards, the university should use the *evidence-based* assessment method, which will produce more specific and more stable results than the *indicator-based* assessment method.

This proves that quality culture is a cultural feature in organisational culture. Building quality culture takes time and effort to achieve values that really have a positive impact on QA activities in universities. Depending on the characteristics of the organisation, each organisation chooses a way to build the quality culture consistent with the quality assurance system and the existing context. In particular, quality culture will suffer many impacts from organisational culture and QA activities in the process of formation and development. Therefore, the values starting from organisational culture are an important factor in combination with typical QA activities to support the formation of new values and determine the success or failure, long or short term during the building of quality culture.

This research is only a standard framework for assessing quality culture, in fact, when applying, the universities should base it on its vision, mission and value system to select and supplement the building criteria from the standard framework for developing quality culture. Quality culture is built and developed in stages, from simple to complex tasks, forming habits that lead to proper understanding.



The university organises to review its mission, vision and core values, thereby emphasising the quality value and organisational culture value for the development of quality culture: 1- The university introduces the content of developing quality culture into its annual long-term and medium-term strategic plans; 2- Determines uncompleted criteria to build in the direction of meeting its vision, mission and specific requirements at each stage; 3- Should promote criteria with a good implementation level to each field of quality culture in the university in the current context and pay attention to standards/criteria that have not performed well to the field of quality culture in the university. In particular, standard 3/values under the human field and standard 5/Values under the field of landscape and material facilities should be paid more attention from the Managing Board of the university to analyse and inspire the assessment values according to the Standard Framework based on its vision and mission to complete the fields of quality culture; 4- Organize for all members in higher education institutions to participate in discussions, comments on the draft strategy, quality policies, quality plans, to build the cultural value system, QA activities etc. and at the same time consult the related parties outside the higher education institution; 5- In each academic year, select the priority contents for development in each field, thereby detailing implementation indicators, assigning the assessment for current status, building solutions and organising the deployment and implementation; 6- Train and cultivate to raise the awareness and skills related to QA and quality culture to all members of the higher education institution. Inspect and monitor the implementation of the targets of building quality culture to set a good example and replicate; 7- Quality culture in a university demonstrates the appreciation of quality, appreciation of learners, values of organisational culture, all activities turn to the quality the because the quality of education is the crystallisation from value of culture, ethics, and intelligence of the entire university contingent (Lieu, 2012)



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