Culture of Excellence for Better Internal Service Quality in High Education

Nasriman Abdul Rahman[1*], Boo Ho Voon[2] and Firdaus Abdullah[3]

[1]Universiti Malaysia Sarawak (UNIMAS), Sarawak, Malaysia
arnasri@unimas.my[1*]

[2]Universiti Teknologi MARA, Kota Samarahan, Sarawak, Malaysia
bhvoon@uitm.edu.my[2]

[3]Universiti Teknologi MARA, Samarahan Campus, Sarawak, Malaysia
fir@uitm.edu.my[3]

(*) Corresponding author

Received: 28 September 2021 Revised from: 15 October 2021 Accepted: 29 October 2021
Published: 11 November 2021

Abstract

The institutions of higher learning are required to provide excellent service to both their internal and external customers. This is a challenge to most of the public universities. In order to achieve this, they need to know and understand the elements that contribute to this excellence. The employees play an important role in providing the best quality of work and serve their customers (e.g., students). The consistently outstanding work performance coupled with the right attitudes among employees help to transform the norm into a culture of excellence (CoE). Good co-ordination and relationship among the management teams and employees will help to serve the employees better. This research aims to help the management teams of the public universities to cultivate and hopefully sustain the CoE for institutional excellence. The dimensions and items of the variables were derived from the related literature and focus group interviews. The structured questionnaire was then designed. The CoE consisted of eight (8) dimensions and 71 items, relevant for the public universities. A measurement model using SmartPLS was developed and the relationship between CoE and internal service quality was investigated. Several implications and recommendations were discussed and proposed for the public universities.

Keywords: Culture of Excellence, Internal Service Quality, Higher Education

1. INTRODUCTION

The higher education sector is commonly regarded as strategic service sector for and many governments (e.g., Malaysia) hoped to improve the quality of teaching and learning processes as well as the quality of the students or graduates. The institutions of higher learning which are sponsored and regulated by the government, specifically the public universities were tasked to play more important roles to leverage the quality of the human capital. The government plays an important role in ensuring the quality in higher education (e.g., Meng et al., 2020). There are several strategic cores which are the crucial elements to be implemented and monitored for institutional excellence.

Many empirical research projects have been conducted with regard to quality management practices and quality improvement. The desire and quest for improvement are ongoing and many individuals and organizations always would like to look for ways to scale greater heights in what they are doing. Inevitably, the employees need to be satisfied and internal marketing is essential for sustainability (e.g., Grönroos, 1981; Kovacevic et al., 2020). The

organizational culture for employee service excellence is needed. However, studies on the culture of excellence for service organizations are still very limited (e.g., Japos, 2007; Trivellas and Dargenidou, 2009) for strategic improvement. As a result, many issues pertaining to the culture of excellence is less pursued after when it is clear that it is a very important subject or issue to examine and study (Anthony and Bhattacharyya, 2010). Furthermore, several studies on Total Quality Service have highlighted that there is a need to study the excellence component in quality (e.g., Ali, Gulsen and Zbignew, 2010; Wahid & Uyun, 2020). Nevertheless, there is also a lack of studies on how CoE in public universities would affect the internal service quality (ISQ), from the employees' viewpoint. It is very important to understand how these elements affect each other for strategic allocation of resources and human resource management for service excellence.

2. LITERATURE REVIEW

The study on the culture of excellence for organizations is greatly emphasized and there are still many issues (e.g., measurement, processes) pertaining to culture of excellence which are less pursued though it is very important to examine and study nowadays (Anthony and Bhattacharyya, 2010). Furthermore, several studies on the totality of service quality have highlighted that there is still a need to study and operationalise the excellence component in quality management (e.g., Ali, Gulsen and Zbignew, 2010; Choy, 2002; Sureshchandar, Rajendran and Anantharaman, 2001). Based on observations done on an average public university, there is a reason to doubt that even though these employees may possess some of the CoE dimensions in their daily routine, they are still lacking in the dimension of ISQ or in some cases, the absence of ISQ. Therefore, ISQ is included in this research because it is believed that it could help employees and organizations to achieve excellence in the working environment. There are very few studies and no proper measurement method done to look at the interrelationship between CoE and ISQ. As to date, there is also no proper structural model used as a guideline (Anthony and Bhattacharyya, 2010).

Culture of excellence has emerged as one of the key issues to those who study organizational performance. Many publications have established as main referrals in the study of managerial and organizational excellence such as Deal and Kennedy (1982), Mansouri, Singh, Khan (2018), Peters and Waterman (1988), Schein (1992), Schneider and Bowen (1993), Voon (2006), Wirtz and Zeithaml (2017), and others. On the contrary, massively differing definitions, standards and research methods for studying excellence culture result in confusion as often as they provide findings. A good and comprehensive measurement is necessary. Sørensen et al. (2012) defined the culture of the organization as the set of ways of thinking, understanding, and actions that are common to members of the same organization. The culture of the organization corresponds to a framework of thinking, a system of values and rules relating to organization that are fully shared by the actors of the organization. Good practices create good culture and excellent practices create excellent culture (Hofstede et al., 1990). To become excellent, one should strive to do something that is extraordinary from their normal routine. Goffee and Jones (1998) suggested that in order for an organization to achieve a high level of excellence, the employees or staff working for the organization must also have an excellent work culture.

Culture of Excellence in Higher Education

There are an increasing number of higher learning institutions with better and unique set of competitive tools. Unfortunately, the growing number of private universities (Halai, 2013) and the decrease funding of public universities (Quinn et al., 2009) have exerted much pressure for them to perform as expected. As so, for sustainability of these institutions under the stringent obligation to constantly satisfy their customers to thrive (Calvo-Porral et al., 2013, Voon, 2006), universities need to satisfy their students (Telford and Masson, 2005; Lagrosen et al., 2004) as well as other stakeholders by providing superior quality education services. The crucial factors to all of these issues are human resource management which is related to serving the employees of the organization. The public university need to be competent to ensure its sustainability and many have outlined their respective targets as the Key Performance Indicators (KPIs).

Many universities tend to apply the relevant quality practices and systems to leverage their competence to serve (e.g., Sultan and Wong, 2014; Sohail et al., 2003; Kovaceviv et al., 2020), and at the same time also to improve the quality of learning which in turn will improve the students' academic performance and satisfaction (Sahney et al., 2008). These desirable quality practices are rather similar to those adapted and adopted in an industry where quality management is fundamental in gaining the outcome quality. As a result, the effort of improving quality management in higher education is consider a main priority and has been given a greater emphasis. Culture of excellence prevails when relatively high performance is continuously emphasized and maintained. The dimensions of Culture of Excellence (CoE) include the followings:

i. Strategic Leadership (SL). The ability of the leader together with his/her team to visualize, predict, estimate and be flexible yet think strategically, and cooperate with others to bring about feasible and desired changes for the future of the organization (Ireland & Hitt, 1999).

ii. Customer Focus (CF). The extent and ability to which the organization is customer-driven, knowing and thereafter meeting or even exceeding their customer expectations, and dedicated to creating very satisfied customers (Agus et al., 2000; Dow et al., 1999; Terziovski & Samson, 1999).

iii. Employee Focus & Engagement (EFE). The ability and competence of the organization in knowing, recognizing and involving the employees in order to meet or even exceed their needs and wants, expectations and desires. The internal work motivation, job satisfaction, job involvement and organizational commitment are the mechanisms which will lead the employees to engage in efforts toward organizational improvement (Waldman, 1994; Morrison, 1994; Walsh and Tseng, 1998).

iv. Human Resource Management (HRM). In quality management efforts, a firm needs to deal with a number of organizational behaviour issues ranging from selection and recruitment, training and education, employee empowerment to employee involvement. Only if the employees are treated as valuable resources by their employers will they, in turn, treat their customers as valuable (Schneider and Bowen, 1992; Kosacevic et al., 2020).

v. Process Management (PM). There are system(s) and process(es) in an organization which need to be recognised, developed and improved. Process management concerns the ability of the organization to manage the production and service delivery processes so that they can operate very well. It involves the set of methodological practices that emphasizes the means of actions, rather than merely results (e.g., Anderson et al., 1994; Forker, 1997: Saraph et al., 1989)

vi. Benchmarking (BM). Benchmarking or learning from the best-in-class is necessary for the continuous improvement of the quality of products or services and internal processes in line with the changes in the external environment such as technology and competition. An organizationcan be transformed into much better when benchmarking is directed at the key and right business processes (Ahire et al., 1996).

vii. Empowerment & Teamwork (ET). Employees need the authority and power to serve better. The good empowerment consists of systematically re-distributing the important aspects throughout the organization from top to bottom: power, information, rewards and knowledge (Schneider and Bowen, 1995). Teamwork is defined as a work group or unit with a common purpose through which members develop mutual relationships for the achievement of goals/ tasks (Harris and Harris, 1996).

viii. Creativity & Innovation (CI). Creativity is about the generation and production of new, novel and useful ideas in any domain to increase the work productivity, and its successful implementation within an organization is defined as innovation (Amabile *et al*., 1996).

Developing and improving service quality are essential for higher education institutions. Same as the other service sector, higher education service is very dynamic and very competitive which requires the higher learning institutions such as the universities to maximize their efforts in order to improve their quality of service (Clemes et al., 2013) in order to serve the target customers much better than their counterparts. Public universities and other institutions of higher learning are now experiencing the financial constraints and other regulations imposed by the governments, as well as the pressure to improve their ranking in the world performance so that they can improve their reputation and thus can help in recruiting more students (e.g., Foskett, 2010; Tambi et al., 2008). These pressures can have a more profound impact on the traditional way in which the institutions manage their quality improvement processes. Universities are ready and willing to apply the relevant quality practices and systems to leverage their competence to serve (e.g., Sultan and Wong, 2014; Voon, 2006; Sohail et al., 2003), and at the same time also to improve the quality of learning which in turn will improve the students' academic performance and satisfaction (Sahney et al., 2008).

Internal Service Quality (ISQ) in Higher Education

Internal service quality, the overall assessment of a service as perceived by the employees (Parasuraman, Zeithaml and Berry, 1988) or the internal customers, is instrumental in determining the quality of service to the external customers (e.g., students, parents, industry, governments). If the employees are served satisfactorily, they most probably will be motivated to serve others. In the context of higher education, the dimensions of this employee-perceived service quality include: tangibles, responsiveness, reliability, assurance and empathy.

Reliability (REL) is the ability to perform the service(s) or activities as promised, dependably and accurately. The ability of the public university employees in serving the customers and deliver the promised services dependably and accurately. Assurance (AS) is the knowledge and courtesy of employees and their ability to inspire trust and confidence. Tangibles (TAN) concerns the physical facilities, equipment and appearance of the personnel. This involves physical characteristics of the service such as the decor, ambience, technology, and equipment that are viewed as contributing to employees' ability to provide a desired level of service. Empathy (EMP) is about the caring, and individualized attention the organization provides to its customers. This includes making an effort to understand customers and identify their needs. Responsiveness (RES) includes the willingness to help customers and provide prompt service. This also means the employees' willingness to assist customers and provide prompt service while being aware of the need for flexibility in customizing services to the needs of individual customers.

Linking Culture of Excellence to Internal Service Quality in Higher Education

In this research, a Conceptual Framework is used to outline the possible courses of action and to present the best solution or approach which leads to a new idea or thought. It aims to help the readers to understand better the whole scenario of the problem which leads to the probable solution. The conceptual framework is shown in Figure 1. It explains that there are 8 proposed dimensions for the CoE. All dimensions are identified based on the related literature, especially on Total Quality Management (TQM). The combination of proposed dimension of CoE (the key independent variable), will be tested in terms of its relationship whether it has a strong impact or relationship with the Internal Service quality (ISQ).

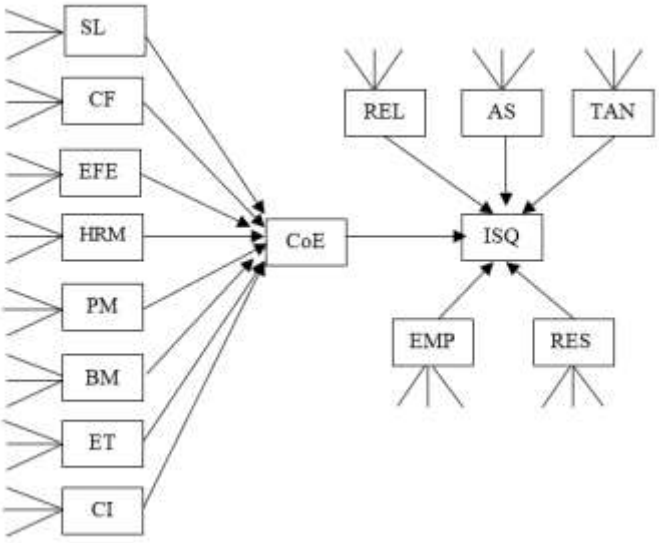

Figure 1: Conceptual Framework for Culture of Excellence (CoE)

The proposition is that the Culture of Excellence (CoE) has numerous dimensions as shown in Figure 1 and CoE has a positive effect on Internal Service Quality (ISQ).

3. METHODOLOGY

The main objective of this empirical research was to determine the CoE dimensions of the public universities and thereafter develop the CoE measurement model to test the CoE-ISQ relationship. The method used for the qualitative study was a literature review of journals related to the culture of excellence and internal service quality. Various potential dimensions and potential items for each dimension of the CoE were identified. Related journals and articles on culture, organization of excellence, strategic leadership, customer focus, employee focus and engagement, human resource management, process management, benchmarking, empowerment and teamwork, and creativity and innovation, were used. Journal articles on ISQ were also used.

Focus group interviews were carried out and aimed at collecting (or gathering) data from the respondents. The objective was to verify and confirm the existing components of the CoE as well as identify the possible new ones. To ensure relevance and accuracy of information, careful screening was done so that only appropriate and suitable individuals were invited. Participants were chosen from among the top, middle and lower levels management members of the public universities (PUs) and agencies. Those chosen had minimum five (5) years' experiences in the management of public universities and some of them represented the staff associations. A total of four (4) interview sessions were carried out. The discussions were facilitated by the researcher, and each lasted for 45 minutes to one hour and 30 minutes. A voice recorder was used to ensure that the detailed information was captured, and everything was transferred into a written format after every session. The feedback and information compiled was divided into categories and coded. The major questions asked during the group interviews were: What is your definition of culture? What is your definition of excellence? What do you think are the elements of a culture of excellence? How do you think a culture of excellence can be achieved in your organization?

The Questionnaire Survey

This is the crucial stage in which questions were developed to collect data that could really substantiate the study. The validity and reliability of the data collected, and the response rates depended largely on the structure of the questionnaire, questions asked and the rigorousness of pilot testing. Therefore, attention was given to ensure question validity and relevance in order to obtain accurate and reliable data. Additionally, the questions must be clearly understood by the respondents and the researchers. Most of the questions were based on information gathered in Stage 1. The questionnaire was divided into five (5) sections from Section A to Section E. Section A is on the demographics that is the personal information related to the individual respondent. Section B focuses on the elements of the CoE. The answers for Sections B, C and D are according to the Likert Scale of 1 to 5;1 for Strongly Disagree and 5 for Strongly Agree. This section consists of eight (8) sub sections on the respective element of the CoE.

The sampling process was planned and implemented accordingly to select respondents who were representative. The sampling design originated from the target population which came from the total number of administrative and supporting staff of all public universities in Malaysia. As so, quota sampling technique was used. Quota sampling technique is a non-probability sampling technique wherein the assembled sample has the same proportions of individuals as the entire population with respect to known characteristics, traits or focused phenomenon. The first step in non-probability quota sampling is to divide the population into

exclusive subgroups. Here, the sampling frame comprised of a list of employees which the heads of PU's the human resource departments/Registrars used to select the targeted elements of the target population. Then, the researcher identified the proportions of these subgroups in the population; this same proportion will be applied in the sampling process. The respondents for this study are employees of administration staff ranges from top management, middle management and supporting staff. They are from various departments. Some of them are full time, part-time, and contract employees in various scheme of work. There are about 20 public universities in Malaysia and the average number of administrative and supporting staff was about 1,500 (one thousand five hundred) employees for each public university. The respondents, from the various subgroups, were selected to ensures that the sample was representative of the entire population.

The Registrar office emailed to 20 respective administrators and staff asking them to answer the online questionnaire within allocated time frame. With 20 respondents from each 20 Universities, the sampled elements for this research were about 400 respondents. Towards the due date, only 262 respondents answered and gave responses to the questionnaire. For this reason, G*Power Analysis was used to calculate the sample size. The software was used to calculate the statistical power. In this study, a pre-test was conducted prior to distribution of questionnaires. It was where the duly designed questionnaire was tested on a smaller sample of respondents before a full-scale study, in order to identify any problems such as unclear wording or the questionnaire taking too long to be answered. Similar to the actual plan, the pre-test questionnaire was email to all the universities' registrars with the link address of online questionnaire. The Registrar office then decided 3 individual administrators and staff to be selected as the pre-test or pilot test respondents. The Registrar offices sent the email to 3 respective administrators and staff asking them to answer the online questionnaire within allocated time frame. With 3 respondents from each 20 public universities in Malaysia, the sample element for pre-test of questionnaires was 60 respondents. The respondents for the pre-test were selected based on random sampling.

Data for this study was analyzed using SmartPLS 3, which was the latest version of Partial Least Squares (PLS). SmartPLS 3 was chosen as it could help do the PLS Path Modeling Algorithm (including Consistent PLS) and Ordinary Least Square Regression based on sum scores. PLS-SEM has been increasingly applied in marketing and other business disciplines (Henseler, Ringle & Sinkovics 2009).

4. ANALYSIS AND FINDINGS

After data collection, the next process is to analyse the data. The process of preparing the data is the first thing to do in any analytical process as to avoid issues related to data, the analysis, and also the result of the overall analysis. The process included editing, coding, and data entry. Organizing the data correctly can save a lot of time and prevent mistakes. The population for this study was represented by the characteristics of the sample respondents. The organization and work profile are shown in Table 1. There are about 261 respondents who completely answered the questionnaires. All of them are employees of 20 public universities in Malaysia ranging from the top management level, middle management level and supporting staff. The questionnaires were distributed by email through the PU's Registrar Office. The online questionnaires were attached in the email and the respondents only have to open and answer all the questions. The

respondents were from various departments of the institutions and the highest response was from the various departments which was 55 responses equivalent to 21%, then followed by the responses from the faculties (37 responses, 14.2%). The highest response was from the middle management, which was about 94 employees (36%), followed by supporting staff 87 employees (33.3%), and top management 80% employees (30.7%). Information on years of working experience, age groups, and others are shown in table.

Table 1: Respondents Profile

	Frequency	Percentage
Department		
HRM	29	11.1%
Administration	22	8.4%
Finance	18	6.9%
Academic Affair	15	5.7%
Student Affair	23	8.8%
Asset and Development Management	16	6.1%
Post Graduate	9	3.4%
International Affair	12	4.6%
Library	25	9.6%
Faculty	37	14.2%
Others	55	21.1%
Designation		
Top Management	80	30.7%
Middle Management	94	36%
Supporting staff	87	33.3%
Years of working in the current organization		
0 to 10 years	44	16.9%
11 years to 20 years	54	20.7%
21 years to 30 years	83	31.8%
More than 30 years	80	30.7%
Work status		
Full-time	137	52.5%
Part-time	59	22.6%
Contract	32	12.3%
Age		
30 years old and below	67	25.7%
31 years to 40 years old	85	32.6%
41 years to 50 years old	86	33.0%
Above 50 years old	23	8.8%
Gender		
Male	146	55.9%
Female	115	44.1%
Race		
Malay	147	56.3%
Chinese	63	24.1%
Indian	32	12.3%
Others	19	7.3%
Marital Status		
Single	81	31%
Married	127	48.7%
Divorced/ Widowed	53	20.3%

Highest level of education		
PhD	31	11.9%
Master Degree	38	14.6%
Bachelor Degree	101	38.7%
Diploma	38	14.6%
Others	53	20.3%

The CoE Attributes

The next stage in the descriptive analysis is to capture the data of CoE as perceived by the respondents. Here, the 5-point Likert scale is used. The scale 5 refers to 'strongly agree', 4 refers to 'agree', 3 refers to 'neither disagree nor agree', 2 refers to 'disagree', and 1 refers to 'strongly disagree'. The first step in the multivariate analysis is to check and test the data. In the multivariate analysis, accurate and proper examination of data, are very important and to ensure appropriate statistical requirement is followed. This includes identifying the missing data. All variables are checked for Kurtosis and Skewness. The result of Kurtosis and Skewness, mean score, and standard deviation analysis for CoE and ISQ suggested that the measurement items fall between strongly agree (5) and neither agree nor disagree (3).

Partial Least Squares Structural Equation Modelling (PLS-SEM) is used in this study. It is a method of structural equation modelling which allows estimating complex cause-effect relationship models with latent variables. It has recently gained increasing attention in research and practice across various disciplines. It enables researchers to model and estimate complex cause-effects relationship models with both latent (graphically represented as circles) and observed variables (graphically represented as rectangles). Hair et al. (2011) suggested two-step approach, which are the measurement model, and the structural model. In this study, the measurement model analysed reliability and validity of the measurement instrument and the structural model analysed the research hypothesis.

The Measurement Model

The evaluation of Measurement Model of this study starts with distinguishing between reflective and formative measurement models to evaluate them (Henseler, Ringle, and Sinkovics 2009). The measurement model permits the assessment of relationships between the observed and unobserved variables. In other word, a measurement model assesses the relationship between latent variable and the indicators/ items which are assigned to measure latent variable. It also explains the pattern by which each indicator loads on a particular latent variable/ factor. In this study, the measurement model is used to identify which measures are related to each latent variable construct that produce good measures for the construct. The latent constructs are the 8 dimensions of CoE and 5 dimensions of ISQ. They were measured by their respective items. Each construct was analysed for reliability features by factor loading and composite reliability. On the other hand, validity is analysed using convergent and discriminant validity.

Reliability of Item

The reliability of individual items was analysed by assessing at the outer factor loading (Hair *et al*., 2011; Wong, 2013). Furthermore, Hair *et al*., (2011) proposed items with low

loadings of 0.40 and lower should be eliminated from the scale. Figure 2 shows the measurement model results before the deletion of low loading items. All four (4) constructs have been analysed and this include 71 items from CoE and 20 items from ISQ respectively. The loading ranges from the lowest of 0.681 and the highest of 0.893. The process of removal of items ranging 0.40 to 0.70 should be carefully considered.

Four (4) items with low loadings below 0.50 (i.e., CF4, CF7, HRM13 and EMP1) were deleted. Three (3) items in CoE were dropped due to low loadings and internal reliability issues. The item (CF4) is related to Customer Focus "Customer complaints and feedbacks are used as a means to initiate improvements in our organization". Item (CF7) "As a service innovation, we use to provide information/details of our service based on a regular basis, through various channels. (e.g., email, portal website, etc.)". Item HRM13 "Our organization agrees on the need of rebranding to uphold their reputations as civil servants" also have poor loading. This is due to the fact that rebranding is not an organization policy matter. As a Public University, all PUs' policy matters are set by the government and have to go through the Ministry of Higher Education before it is approved and implemented. This includes the policy of "rebranding" employees in civil services. Lastly, one item in ISQ was dropped due to low loading and internal reliability issues. Item EMP1 "Our employees deal with customers in a caring fashion" experienced a poor loading due to the fact that most of the respondents feel it is more appropriate to deal with customers in a proactive manner and not just taking `care' of them.

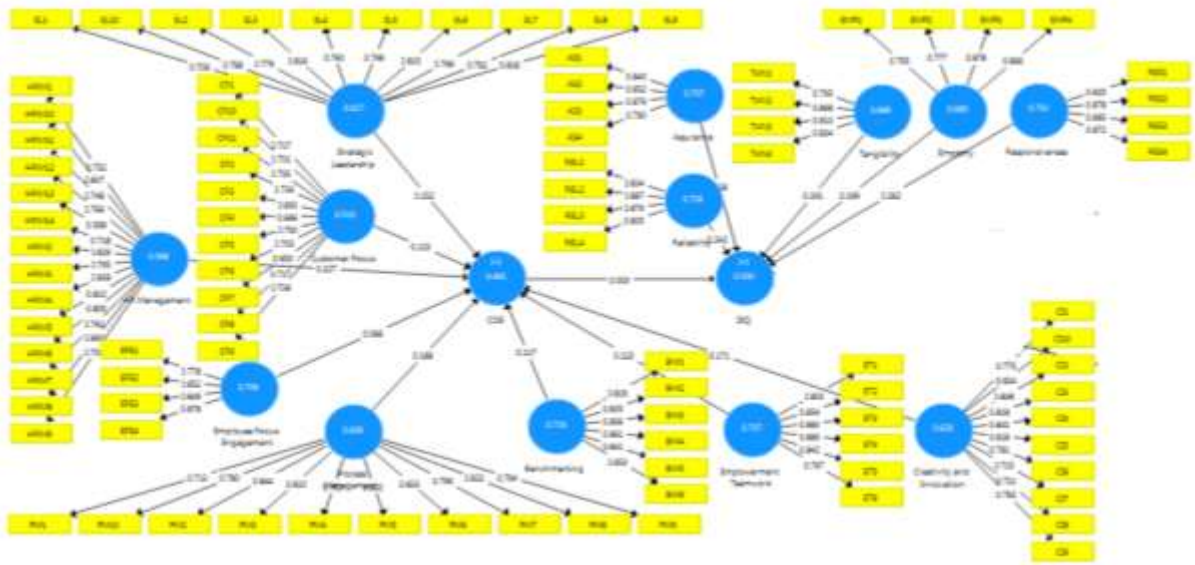

Figure 2: The Measurement Model and Related Paths

Internal Consistency

Composite reliability (CR), which has also been referred to as McDonald's coefficient, is obtained by combining all of the true score variances and covariances in the composite of indicator variables related to constructs, and by dividing this sum by the total variance in the composite. In this study, composite internal scale reliability was used to analyse the internal consistency construct instead of Cronbach's alpha, since the latter may underestimate the reliability coefficient specifically when multidimensional measures or pre-specified sets of items are used (Hair et al., 2012; Wong, 2013). Most of the CR in this study range from 0.897 to 0.955.

As the cut off value of CR 0.700 (e.g., Hair et al., 2011), all the latent variables achieved high levels of internal consistency from all 15 latent variables, and this shows an acceptable level of internal consistency. The results are shown in Table 2.

Table 2: Results of Convergent Validity Assessment (First Order Assessment)

Construct	Item	Loading	ALPHA	C.R.	A.V.E.
Benchmarking (BM)	BM1	0.819	0.920	0.938	0.716
	BM2	0.835			
	BM3	0.866			
	BM4	0.861			
	BM5	0.841			
	BM6	0.853			
Customer Focus (CF)	CF1	0.723	0.890	0.911	0.532
	CF10	0.717			
	CF11	0.757			
	CF2	0.747			
	CF3	0.681			
	CF4	Deleted			
	CF5	0.752			
	CF6	0.727			
	CF7	Deleted			
	CF8	0.720			
	CF9	0.739			
Creativity and Innovation (CI)	CI1	0.775	0.934	0.944	0.629
	CI10	0.824			
	CI2	0.848			
	CI3	0.818			
	CI4	0.841			
	CI5	0.818			
	CI6	0.781			
	CI7	0.715			
	CI8	0.721			
	CI9	0.782			
Employee Focus Engagement (CFE)	EFE1	0.778	0.861	0.906	0.706
	EFE2	0.852			
	EFE3	0.849			
	EFE4	0.878			
Empowerment Teamwork (ET)	ET1	0.803	0.916	0.935	0.707
	ET2	0.854			
	ET3	0.883			
	ET4	0.889			
	ET5	0.842			
	ET6	0.767			
Strategic Leadership (SL)	SL1	0.706	0.931	0.941	0.617
	SL10	0.768			
	SL2	0.779			
	SL3	0.816			
	SL4	0.760			
	SL5	0.798			
	SL6	0.815			
	SL7	0.796			
	SL8	0.792			
	SL9	0.818			
	ET2	0.854			
	ET3	0.883			
	ET4	0.889			
	ET5	0.842			
	ET6	0.767			
Human Resource Management (HRM)	HRM1	0.757	0.948	0.955	0.619
	HRM10	0.809			
	HRM11	0.744			
	HRM12	0.767			
	HRM13	Deleted			
	HRM14	0.713			
	HRM2	0.834			

	HRM3	0.795			
	HRM4	0.843			
	HRM5	0.812			
	HRM6	0.802			
	HRM7	0.763			
	HRM8	0.868			
	HRM9	0.706			
	PM1	0.713			
	PM10	0.780			
	PM2	0.844			
	PM3	0.810			
Process Management (PM)	PM4	0.793	0.937	0.946	0.639
	PM5	0.802			
	PM6	0.833			
	PM7	0.796			
	PM8	0.822			
	PM9	0.794			

Assessment of Convergent Validity

Convergent validity refers to the degree to which two measures of constructs that theoretically should be related are in fact related. Here, the Average Variance Extracted (AVE) measures the variance captured by the indicators relative to measurement error, and the value should be greater than 0.50 to justify using the constructs (Hair et al., 2014; Henseler, Hubona, & Ray, 2016). The AVE was in a range of 0.532 to 0.753. The result shows that the overall 15 constructs are valid measures of their respective constructs based on their parameter. The Composite Reliability (CR) values of 0.700 and above demonstrate that these constructs have high levels of internal consistency. The Average Variance Extracted (AVE) more than 0.50 (AVE > 0.50), Composite Reliability (CR) more than 0.70 (CR > 0.70) and Alpha more than 0.80 (Alpha > 0.80). Some of the items are deleted due to low loading, and hence their effect on convergent and discriminant validity. The variables demonstrate good convergent validity. All the constructs achieve the minimum threshold value of 0.5 for Average Variance Extracted (AVE), which is an indication that the items explain more than 50% of the construct's variances (Hair, et al., 2014). AVE is a measure of the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error (Fornell and Larcker, 1981).

Assessment of Discriminant Validity

Discriminant validity shows that two measures that are not supposed to be related are in fact, unrelated. It measures the extent to which the construct is empirically distinctive from other constructs (Hair *et al.,* 2014). This study used the Heterotrait-Monotrait Ratio of Correlations (HTMT 0.90). The discriminant validity assessment is using HTMT0.90 (First Order Assessment). Although the Fornell-Larcker criterion was established more than 30 years ago, there is virtually no systematic examination of its efficacy for assessing discriminant validity. Rönkkö and Evermann (2013) were the first to point out the Fornell-Larcker criterion's potential problems. Table 3 indicates the Heterotrait-Monotrait Ratio of Correlations (HTMT 0.90) is established. HTMT is used in assessing the discriminant validity in PLS-SEM. If the HTMT value is below 0.90, discriminant validity is established between the two reflective constructs. The HTMT Inference result is obtained by running the bootstrapping routine. HTMT produces more accurate estimations of discriminant validity than Fornel and Larcker's criterion. From the table, the results show that discriminant validity is well established. Thus, the measurement

model in this research provided an adequate convergent and discriminant validity. The constructs of CoE and ISQ were well represented by the proposed items.

Assessment of Variation Inflation Factor (VIF)

The variance inflation factor (VIF) quantifies the extent of the correlation between one predictor and the other predictors in a model. It is used for diagnosing collinearity/ multicollinearity. Higher values signify that it is difficult to be impossible to assess accurately the contribution of predictors to a model. A value of 1 means that the predictor is not correlated with other variables. In Table 7, the Variance Inflating Factor (VIF) explained the higher the variance $\sigma\beta$are when X1 and X2 are correlated compared to when they are uncorrelated. High VIFs are a sign of multi-collinearity. The results show that VIF is less than 5.000 (VIF < 5.000) which suggest that multi-collinearity is not an issue among the constructs of the inner model. O'Brien (2007) suggested if VIF for all the measurement items was all lower than the suggested threshold of 5, it indicates the low and moderate degree of redundancy of each measurement item. From the results of the analysis, the measurement constructs show good individual item reliability, internal consistency, convergent validity, and discriminant validity. This reflects that based on quantitative findings, CoE constructs consist of eight (8) dimensions whereas the Internal Service Quality (ISQ) constructs consist of five (5) dimensions. All the values are within the acceptable standard limit and the measurement items indicate a low degree of redundancy, the measurement model in this research shows sufficient robustness needed to analyse the relationship between the exogenous variable and the endogenous variables.

Table 3: *Results of Discriminant Validity Assessment using $HTMT_{0.90}$ (First Order Assessment)*

Con	AS	BM	CI	CF	EMP	EFE	ET	HRM	EL	PM	REL	RES	ES	SL	TAN
AS															
BM	0.749														
CI	0.731	0.814													
CF	0.663	0.700	0.675												
EMP	0.829	0.774	0.795	0.721											
EF	0.562	0.635	0.629	0.808	0.644										
ET	0.811	0.840	0.843	0.705	0.805	0.649									
HRM	0.640	0.711	0.655	0.814	0.684	0.795	0.686								
EL	0.672	0.584	0.616	0.525	0.609	0.530	0.660	0.501							
PM	0.738	0.829	0.778	0.779	0.809	0.807	0.842	0.836	0.587						
REL	0.845	0.729	0.785	0.659	0.769	0.587	0.842	0.662	0.592	0.764					
RES	0.768	0.706	0.681	0.681	0.862	0.626	0.766	0.654	0.613	0.765	0.783				
ES	0.695	0.635	0.667	0.601	0.773	0.548	0.773	0.614	0.816	0.696	0.732	0.723			
SL	0.595	0.566	0.599	0.816	0.564	0.791	0.621	0.759	0.552	0.717	0.598	0.559	0.560		
TAN	0.847	0.730	0.785	0.642	0.829	0.609	0.821	0.649	0.639	0.769	0.807	0.797	0.735	0.582	

Table 4 shows the results of Convergent Validity Assessment. In the case of Formative Measurement, the focus is at weights, VIF and P-values. Variance Inflating Factor (VIF) is less than 5.000 (VIF < 5), hence multi-collinearity is not an issue. Although not all p-values for

weights are significant (p must be equal to or less than 0.05), all p-values for loadings are found significant. Hence all the items are retained for subsequent analysis. Likewise, due to the importance of content validity, all items are retained.

5. DISCUSSIONS AND IMPLICATIONS

The focus of this study is to identify the elements of the culture of excellence and how it influences the internal service quality. The result from data analysis shows that the Convergent Validity for the variables of this study includes the Composite Reliability (CR) values of 0.700 and above. Similarly, the variables in this study demonstrate good convergent validity. All the constructs achieve the minimum threshold value of 0.5 for Average Variance Extracted (AVE), which is an indication that the items explain more than 50% of the construct's variances (Hair, et al., 2014). The reliable and valid dimensions of CoE are discussed in the following section.

Table 7: Results of Convergent Validity Assessment

Construct	Item	Weights	VIF	P-value (weights)	P-value (loadings)
COE	BM	0.069	3.443	0.210	0.000
	CF	0.122	3.262	0.048	0.000
	CI	0.266	3.166	0.000	0.000
	EFE	-0.039	2.814	0.276	0.000
	SL	-0.010	2.863	0.862	0.000
	ET	0.395	3.700	0.000	0.000
	HRM	0.062	3.613	0.229	0.000
	PM	0.246	4.882	0.003	0.000
ISQ	REL	0.282	2.713	0.000	0.000
	RES	0.183	2.850	0.013	0.000
	TAN	0.241	2.777	0.002	0.000
	AS	0.154	2.959	0.010	0.000
	EMP	0.285	2.853	0.000	0.000

i. Strategic Leadership (SL). The study shows that Strategic Leadership (SL) plays a crucial role in promoting the culture of excellence in PU. In the literature, SL referred to a person's ability to anticipate, envision, maintain flexibility, think strategically, and work with others to initiate changes that will create a viable future for the organization (Ireland and Hitt, 1999). There are about 10 items in this construct. Respondents agree on these various issues, which are related to the 10 items in SL.

ii. Customer Focus (CF). The second dimension of CoE is Customer Focus (CF). This dimension is also found to be a significant aspect in promoting excellence in PU. CF refers to the extent to which the organization is customer driven, meeting/exceeding customer expectations, and dedicated to creating satisfied customers. From the findings, most public universities seem to emphasize customer service more throughout the organization.

iii. Employee Focus and Engagement (EFE). EFE includes the internal work motivations, job satisfactions; job involvement and organizational commitment are the mechanism, which leads employees to engage in efforts toward organizational improvement. (Waldman, 1994; Morrison, 1994; Walsh and Tseng, 1998). In this research, respondents gave great concern on how they

encourage their employees to give suggestions and promote innovations, how they evaluate the effectiveness and level of participation of their employees in quality management programs, how they use the effectiveness of Quality Control Circles (QC), cross-functional and Quality Improvement Teams (QIT) for problem solving, and how they set a proper co-ordination of all activities of the task groups (e.g. quality improvement teams (QITs), quality control circles (QCs) and other cross-functional teams) to ensure that there is knowledge and understanding of the different projects that have been undertaken to avoid overlap, repetition and possible conflict.

iv. Human Resource Management (HRM). In quality management efforts, the universities need to deal with a number of organizational behaviour issues ranging from selection and recruitment, training and education, employee empowerment to employee involvement. Only if their employers treat the employees as valuable resources will they, in turn, treat their customers as valuable (Schneider and Bowen, 1992). The learning organization encourages a more interconnected way of thinking. Such organization becomes more like a community for which employees feel a commitment to. Employees work harder for the organization since they are committed to it.

v. Process Management (PM). This refers to the ability of the organization to manage the production and service delivery processes so that they operate as expected; the set of methodological practices that emphasize the means of actions, rather than result. (Anderson *et al*., 1994; Forker, 1997: Saraph*et al*., 1989). In this research, respondents gave a great concern on their effort to regularly map their work processes and evaluate their quality and efficiency. They also constantly review and check their work, processes to minimize the causes of customer complaints, ensure their work procedures/manuals are periodically reviewed and updated to cope with the changing environment, update the job descriptions for frontline employees, which emphasize the importance of responsibility and flexibility.

vi. Benchmarking (BM). Benchmarking is another significant dimension in CoE in PU. Proficient manoeuvring of quality of products or services and internal processes without losing grip on the external factors such as competition requires prudent use of benchmarking. The organization, in total, can be transformed to world class when the benchmarking is directed at the key or critical business processes. (Ahire et al., 1996). In this research, respondents gave a great concern on the effort of the organization, which emphasizes on benchmarking the services and processes with respect to those of other organizations; emphasizes benchmarking the training programmes with those of other organizations; and benefit and improvement by practicing benchmarking with other organizations.

vii. Empowerment and Teamwork (ET). Empowerment consists of systematically re-distributing four key aspects throughout the organization from top to bottom: power, information, rewards and knowledge (Schneider and Bowen, 1995). Teamwork is defined as a group work or unit with a common purpose through which members develop mutual relationships for the achievement of goals/ tasks. (Harris and Harris, 1996). In this research, respondents gave a great concern on the move to ensure their employees are given the commensurate authority and power to do their works; ensured their employees are protected and advised properly in the course of pursuing excellence; and ensured staff are encouraged to work as a team to provide the best customer

service. The findings suggested that most of the employees are given commensurate authority and power to do their work.

viii. Creativity and Innovation (CI). Creativity is the production of novel and useful ideas in any domain and its successful implementation within an organization is innovation (Amabile *et al*., 1996). This study shows CI is a significant dimension for CoE. The employees' understanding of the vision and mission will help in promoting the valued creativity and innovations. Most of the public universities have the structure that supports CI which values flexibility, freedom and cooperative teamwork. Freedom as a core value in stimulating CI, is also manifested in autonomy, empowerment and decision making. The high speed of decision making can promote the CI. Rewards and recognition, and the availability of resources, namely time, information technology and creative people, are being recognized as essential elements in promoting CI culture.

The Relationship Between Culture of Excellence and Internal Service Quality

The first phase of this study is to answer all the research questions and research objectives which are already highlighted earlier on. In the above discussion, we already found and understood the various elements of CoE and ISQ. The next phase is to investigate and determine the relationship and impact of all these significant elements of CoE and ISQ in the public universities. From the analysis, we can conclude that the Effect size (f^2) of CoE on Internal Service Quality (ISQ) is large (3.424) which indicates that CoE is a very important dimension on ISQ. This finding revealed the secret ingredient of the successful PU in Malaysia which put an emphasis on the implementation of CoE in their workplace. With a favourable culture of excellence in the workplace, automatically it pushed the staff to give an excellent service to their customers. Physically and mentally, this drives the employees to increase their work motivation, creativity, skill, attitude as well as their self-appearance and self-grooming. The large effect size of CoE to ISQ also reflected that most of the items asked in the questionnaires on ISQ are significantly important items to the respondents. Most of the staff agreed that their organization provides services as promised to the customers.

6. CONCLUSIONS AND RECOMMENDATIONS

The higher educational landscape is getting increasingly dynamic and competitive which requires the universities to maximize their efforts in order to improve their quality of educational services to benefit the various stakeholders. The culture of excellence investigated in this empirical research has found the various dimensions of processes, operational and human-related challenges which the quality management teams can take note and implement. Besides, for the sake of sustainability, the institutions most probably need to constantly satisfy their internal customers (employees) and the public universities also need to satisfy their targeted students whom they have committed to serve. Related recommendations are found in this chapter. Besides, the limitations and directions for future research are also discussed.

The outcomes of this study will give a great impact on the employees of the public universities towards increasing their productivity by implementing the culture of excellence in their respective organizations. The management will know the important elements that can

trigger the CoE among their employees which will most probably motivate and increase their satisfaction. The findings showed that all elements listed are significant components for CoE. The important element of Strategic Leadership (SL), Customer Focus (CF), Employee Focus and Engagement (EFE), Human Resource Management (HRM), Process Management (PM), Benchmarking (BM), Empowerment and Teamwork (ET), and Creativity and Innovation (CI) are contributors for achieving the culture of excellence in organizations. The research findings confirmed the positive and strong causal relationship between culture of excellence and internal service quality.

One of the limitations of this study is that it limits the focus and scope to only employees of public universities in Malaysia. Other limitation is in terms of the sample size, and there is a possibility that other relevant variables are not included in this study in order to help the quality management of the public universities more effectively. For instance, the influences of environmental variables such as economic factors were not included to analyse their influences on the relationships of the variables in this study. For future study, it will good to see other trend and elements that affect the culture of excellence in other country and other type of organization. It is important to the researcher to further explore the new element of CoE in the near future as the workplace environment as well as the employee work culture will be different. The organization direction might also different as to act on the global and local issues. Future research also could consider the element in private higher learning institution as the environment and policy also different as well as human factor, which is the employee. On the other hand, the study of culture is closely related to human attitude and this create a new dimension for future study especially on the relationship between excellence culture, positive attitude in different organization and countries.

AKNOWLEDGMENT

The researchers would like to thank the heads of departments and employee respondents who helped in the data collection activities. This paper is based on the empirical data and some analysis of the dissertation of Nasriman Abdul Rahman (Universiti Teknologi MARA). The kind assistance from the statistical analysis expert and colleagues are much appreciated.

REFERENCES

Agus, A. Krishnan, S. K., & Kadir, S. L. S. (2000). The structural impact of total quality management on financial performance relative to competitors through customer satisfaction: a study of Malaysian manufacturing companies. *Total Quality Management, 11*(4), 808-819.

Ahire, S.L., Golhar, D.Y., & Waller, M.A. (1996). Development and validation of TQM implementation constructs. *Decision Sciences*, 27, 23-56.

Ali Turkyilmaz, Gulsen Akman, Coskun Ozkan, & Zbigniew Pastuszak. (2011). Empirical study of public sector employee loyalty and satisfaction. *Industrial Management & Data Systems*, 111(5), 675-696.

Amabile, T.M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39 (5), 1154-1184.

Anderson, J.C., Rungtusanatham, M., & Schroeder, R.G., (1994). A theory of quality management underlying the Deming management method. *Academy of Management Review*. *19*(3), 472-509.

Anthony, J. P., & Bhattacharyya, S. (2010). Measuring organizational performance and organizational excellence of SMEs– Part 1: A conceptual framework. *Measuring Business Excellence,*14 (2), 3-11.

Calvo-Porral, C., Lévy-Mangin, J.P., & Novo-Corti, I. (2013). Perceived quality in higher education: an empirical study. *Marketing Intelligence & Planning*, 31 (6), 601-619.

Clemes, M.D., Cohen, D.A., & Wang, Y. (2013). Understanding Chinese university students' experiences: an empirical analysis. *Asia Pacific Journal of Marketing and Logistics*, *25*(3), 391-427

Choy, L. (2002). Development and validation of a Total-Quality-Management-For -Service (TQMS) Model

Deal, T. E., and Kennedy, A. A. (1982). *Corporate Cultures: The Rights and Rituals of Corporate Life.* USA: Addison-Wesley.

Dow, D., Samson D., & Ford, S. (1999). Exploring the myth: do all quality management practices contribute to superior quality performance? *Production and Operations Management*. *8*(1), 1-27.

Forker, L.B., (1997). Factor affecting supplier quality performance. *Journal of Operations Management*. *35*(6), 1681-1701.

Fornell and Larcker (1981). https://www.jstor.org/stable/3151312

Foskett, N. (2010). Introduction to special issue of international journal of public sector management. *International Journal of Public Sector Management*, *23*(2).

Goffee, R., & Jones, G. (1998). The character of a Corporation: How Your Company's Culture Can Make or Break Your Business, *Harper Business*, London.

Goodman E.A., Zammuto R.F., & Gifford B.D., (2001). The competing values framework: understanding the impact of organizational culture on the quality of work life, *Organizational Development Journal*, 19 (3), 60.

Grönroos, C. (1981). Internal marketing–an integral part of marketing theory. *Marketing of Services*. American Marketing Association, Chicago, IL

Gunawardane, G. (2010). Reliability of The Internal Service Encounter. *International Journal of Quality and Reliability Management,* 28 (9), 1003-1018.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152.

Harris, P.R. and Harris, K.G. (1996). Managing effectively through teams. *Team Performance Management: An International Journal*, *2*(3), 23-26.

Henseler, J., Ringle, C. and Sinkovics, R. (2009), The use of partial least squares path modeling in international marketing, Sinkovics, R. and Ghauri, P. (Ed.) *New Challenges to International Marketing (Advances in International Marketing, Vol. 20),* Emerald Group Publishing Limited, Bingley, pp. 277-319.

Herguner, G. and Reeves, N.B.R. (2000). Going against the national cultural grain: a longitudinal case study of Organizational culture change in Turkish higher education. *Total Quality Management*, *11*(1), 45-56.

Hofstede, G., Neuijen, B., Ohayv, D.D. and Sanders, G. (1990). Measuring Organizational cultures: a qualitative and quantitative study across twenty cases. *Administrative Science Quarterly*, 35 (2), 286-316.

Ireland, R.D., & Hitt, M.A. (1999). Achieving and maintaining strategic competitiveness in the 21st century: the role of strategic leadership. *Academy of Management Executive*, *13*(1), 63-77.

Japos, G. V. (2007). The Culture of Excellence of Private Higher Education Institutions. *Liceo Journal of Higher Education Research,* 5(1). *doi: http://dx.doi.org/10.7828/ljher.v5i1.5*

Kovacevic, M., Blagojevic, S., & Kuzmanovic, B. Sustainability of the Motivation Policy Model for Employees in State Administration. Sustainability, *12*(19) 7974; https://doi.org/10.3390/su12197974

Lagrosen, S., Seyyed-Hashemi, R., & Leitner, M. (2004). Examination of the dimensions of quality in higher education. *Quality Assurance in Education*, 12 (2), 61–69.

Lumby, J. & Foskett, N. (2015). Internationalization and Culture in Higher Education, *Educational Management Administration & Leadership*, January, 1-17

Mansouri, A. A. A., Singh, S. K., & Khan, M. (2018). Role of organisational culture, leadership and organisational citizenship behaviour on knowledge management. *International Journal of Knowledge Management Studies*, 9(2), 129.

Meng, F., Tian, X., Chiang, T., & Cai, Y. (2020). The State Role in Excellent University Policies in the Era of Globalization: The Case of China. S. Rider et al. (eds.), *World Class Universities, Evaluating Education: Normative Systems and Institutional Practices*, https://doi.org/10.1007/978-981-15-7598-3_12

Mohamad Yusof, A.R., Hassan, Z., Abdul Rah man, S., & Ghouri, A. M. (2012). Educational service quality at public higher educational institutions: A proposed framework and importance of the sub – dimensions. *International Journal of Economics Business and Management Studies*, *1*(2), 36-49.

Morrison, E.W. (1994). Role definitions and organizational citizenship behavior: the importance of the employee's perspective. *Academy of Management Journal*, *37*(6), 1543-67

Nguyen N., (2006). *Gestion de la Qualité*, Ed Cheneliére Education, Quebec

Quinn, A., Lemay, G., Larsen, P., & Johnson, D.M. (2009). Service quality in higher education. *Total Quality Management*, 20 (2), 139-152.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, *64*(1), 2-40.

Peters, T. J., & R. H. Waterman. (1988). *In Search of Excellence: Lessons from America's Best-Run Companies*. New York: Harper & Row Publishers. Inc.

Sahney, S., Banwet, D.K., & Karunes, S. (2008). An integrated framework of indices for quality management in education: a faculty perspective. *The TQM Magazine*, 20, 502-519.

Saraph, J.V., Benson, P.G., & Schroeder, R.G., (1989). An instrument for measuring the critical factors of quality management. *Decision Sciences*. *20*(4), 810-829.

Schein, E.H. (1992): Organisational culture and leadership. San Francisco: The Jossey-Bass Inc.

Schneider, B., & Bowen, D. (1993). The Service Organization: Human Resources Management Is Crucial. *Organizational Dynamics*, Spring, 21(4), 39-52.

Sohail, M.S., Rajadurai, J., & Rahman, N.A.A. (2003). Managing quality in higher education: a Malaysian case study. *International Journal of Educational Management*, 17, 141-146.

Sørensen, B. M., Spoelstra, S., Höpfl, H., & Critchley, S. (2012). *Theology and organization. Organization*, 19(3), 267–279. doi:10.1177/1350508412437464

Sultan, P., & Wong, H.Y. (2014). An integrated-process model of service quality, institutional brand and behavioural intentions: the case of a university. *Managing Service Quality: An International Journal*, 24, 487-521.

Sureshchandar, G.S, Rajendran, C., & Anantharaman, R.N, (2001). A holistic model for total quality service, *International Journal of Service Industry Management*, 12, 378-412.

Telford, R., & Masson, R. (2005). The congruence of quality values in higher education. *Quality Assurance in Education*, 13 (2), 107-119.

Terziovski, M., & Samson D. (1999). The link between total quality management practice and organizational performance, *International Journal of Quality & Reliability Management*. *16*(3), 226-237.

Trivellas, P. and Dargenidou, D. (2009). Organisational culture, job satisfaction and higher education service quality. The case of Technological Educational Institute of Larissa. *The TQM Journal*, 21 (4), 382-399.

Voon, B. H. (2006). Linking a Service-driven Market Orientation to Service Quality. *Managing Service Quality*, 16 (6), 595-619.

Wahid, M., & Uyun, L. Q. (2020). Managing School Culture on Excellent Elementary School in East Java Indonesia. *Al Ibtida: Jurnal Pendidikan Guru MI*, *7*(1), 100-116.

Waldman, D. A. (1994). The contributions to total quality management to a theory of work performance. *Academy of Management Review*, *19*(3). 510-36.

Walsh, J.P., & Tseng, S.F. (1998). The effects of job characteristics on active effect of work. *Work and Occupations*, *25*(1), 74-96.

Wirtz, J., & Zeithaml, V. (2017). Cost-effective service excellence. *Journal of the Academy of Marketing Science*, 46(1), 59–80. doi:10.1007/s11747-017-0560-7

Wong, K. K. (2013). Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS, *Marketing Bulletin*, Vol 13, 1-32

Yousapronpaiboon, K. (2014). SERVQUAL: Measuring Higher Education Service Quality in Thailand. Procedia - *Social and Behavioral Sciences*, 116, 1088–1095. doi:10.1016/j.sbspro.2014.01.350