Macrothink Institute™

International Journal of Human Resource Studies
ISSN 2162-3058
2016, Vol. 6, No. 3

Academic Staff Perceptions toward Implementing Total Quality Management Principles

Naail Mohammed Kamil (Corresponding author)

Global Leadership Research Unit, Faculty of Business, Accountancy and Management, SEGi University, No. 9, Jalan Teknologi, Taman Sains Selangor, Kota Damansara PJU5

47810 Petaling Jaya, Selangor D.E., Malaysia

Email: naailkamil@segi.edu.my

Loutfi Boulahlib

Kulliyyah of Economics and Management Sciences, P. O. Box 10, 50728 Kuala Lumpur, Malaysia

Mohammed Borhandden Musa

Faculty of Education, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia

Shafeeq Hussain Vazathodi al-Hudawi

Faculty of Education, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia

Received: July 25, 2016 Accepted: September 17, 2016 Published: October 03, 2016

doi:10.5296/ijhrs.v6i3.10094 URL: http://dx.doi.org/10.5296/ijhrs.v6i3.10094

Abstract

Purpose- This study examines the attitude of academic staff in one higher education institution in Malaysia towards the implementation of total quality management principles, and how that affects the intention to implement total quality management in the university. It also highlights the impacts of several demographic variables on the implementation of total quality management in the university.

Design/methodology/approach-The study used survey data drawn from 149 academic staff selected using stratified random sampling techniques. Regression analysis was used to

analyse data.

Finding-The findings demonstrate there is a positive significant correlation between attitude toward TQM implementation (customers and stakeholders, employee engagement and teamwork, continuous improvements and total degree of attitude) and the intention to practice TQM among sampled institution faculties. Concerning the correlation between the subjective norms and intention, the analysis manifests that there is no significant correlation between the subjective norms of TQM and the intention to practice TQM principles among institutional staff. Furthermore, the study also found that there are no significant differences in the attitude towards implementation of total quality management principles due to the variables of gender, nationality, marital status, work experiences, the faculty and job positions with the exception of academic degree, where significant differences are shown.

Value/originality-Since the study reports the understanding of academic staff of a higher education institution toward the implementation of total quality management principles, top management in the tertiary sector may find the findings and conclusions useful when planning for the implementation of total quality management principles.

Keywords: Total quality management, Academic staff, Perception, Principle

1. Introduction

In the last two decades, total quality management (TQM) has grown to become one of the main sources of competitive advantage among several sectors of commerce. TQM approach was initiated by Edwards Deming, who sought to improve the efficiency of the industry in the United States in the late 1950s (Deming, 1986). Despite his efforts, Deming's ideas went unacknowledged by the American industrial sector. Realising the merit of Deming's ideas, the Japanese adopted his principles which proved effective in accelerating Japan's recovery from the ravages of World War II. Upon seeing Japan's successful adoption of TQM, the US industrial sector commenced to use the TQM approach where many companies adopted its principles to improve the quality of their products and services (Sila and Ebrahimpour, 2005). Besides business, according to Grey, Lyle, and Mel (1994), TQM is a significant topic in academic circles.

In the academic circles, universities always take great interests in applying the principles of quality management due to its criticality to the tertiary sector. Since, universities have a strong association with the society, quality management processes in universities will have a direct effect on the expansion of society itself. Although it was quite late (by the 1990s) when the higher education (HE) sector considered applying TQM principles, they took it seriously to improve administrative and academic processes and services (Zakuan, Saman, Muhamad, Ariff and Shalini, 2012), for both are key points of departures in the accreditation and ranking exercises.

Malaysia is one of the many countries that have awarded an increased importance to quality education at all levels. In tandem, Malaysian government not only ensures the increased

provision of HE, but most importantly is also playing a key role in providing guidelines and monitoring the quality of HEIs, both at public and private sectors (United Nations Country Team, 2005, p. 66).

To this end, the Malaysian Ministry of Higher Education (MOHE) has launched a number of projects which seek to improve the quality of the HE in Malaysia. The main aim of MOHE is to create a good environment for the HE, ultimately leading to enhanced academic and institutional excellence (MOHE, 2013). The authorities look forward to make Malaysia a centre of educational excellence through internationalization of Malaysian education by the year 2020.

However, there is limited discussion and empirical studies on TQM practices at the level of HEIs in Malaysia. This study hopes to fill this gap. The study specifically focuses on one HEIs, and aims to understand the attitude of its academic faculties towards the implementing TQM principles. It examines the impact of demographic variables (faculty affiliation, experience, academic degree and job position on the attitude towards implanting TQM principles; the correlation between attitude and their intention to practise TQM. It also aims to examine the correlation between barriers to implementing TQM (subjective norms) and the intention to practice TQM.

In this regard, it is to be noted that the HEI chosen for the study has its own policies, strategic plans, performance and evaluation measures, and other decision making methods, implemented to control quality at different academic and non-academic levels, such as ISO 9001:2000 and/or ISO 9001:2008, Balanced Scorecard (BSC) and others. Through these measures, the HEI ensures the quality of academic services, continuous quality improvement and its strategic targets and key performance indicators.

2. Literature Review

2.1. The Concept of Quality

It is a joint consensus amongst academics, practitioners and researchers that the concept of quality is not new in the academic arena, partly because it has always been part of the academic tradition. Quality prevails along human literacy development activities. In fact, it has been forever part of the academic practices. It is seen as a subjective notion that may be influenced by personal feelings, tastes or opinions where each individual has his/her own way of perceiving things (Ali and Musah, 2012; Evans and Lindsay, 2011). The concept of quality though diverse, "does have a bottom line and that line is defined by the goals and values which underpin the essentially human activity" of any given organisation (Bunting, 1993, p.54). Quality movement in general, has led to the birth of many concepts related to continuous improvement, one of which is TQM.

2.2. Customer in Higher Education

The determination of who is the main customer of HEIs poses a very complicated issue (Kysilka & Medinsch, 2011; Unal, 2001). Although, there is a semi-agreement among universities that students are their pivotal customers, faculties and administrators have balked

at the idea of having students as customers (Chua, 2004; Hewitt & Clayton, 1999; Kysilka & Medinsch, 2011; Manivannan & Premila, 2009; Najafabadi, Sadeghi, & Habibzadeh, 2008). This is so, because "many contemporary academics feel the term customer is too crass a commercial term, denoting a cash exchange" (Unal, 2001, p 12). This is based on a narrow assumption that a happy student simply works to pass his lectures and to graduate, and therefore students are concerned only with short-term satisfaction. This means giving a student what he/she wants will not be a requisite drive behind the quality of HEI. On the contrary, the actual learning and growing which faculties and administrators want is based on long-term gains. However, generally, most of the universities consider students as customers.

Harvard University determines its customer as anyone to whom we give information or service which may be beneficial to them (Kysilka & Medinsch, 2011), whereas the Oregon State University considers that its students are their purpose of existence (Unal, 2001). They resorted to divide their customers into parts, external and internal, to include any potential students, existing students as well as graduate students (Kysilka & Medinsch, 2011).

HEI must look at a customer as stakeholders, whether internal stakeholders such as employee and the external ones in terms of students and society (Najafabadi et al., 2008).

There have been some universities which expressed fear of taking students alone as customers in their definitions; such as Stanford University, which upholds the students as customers, though the issue that still remains unfinalised.

In light of the varied definitions of customer in the context of HEI as well as those which appeared in the literature review, no educational institution has offered a final definition of the customer in HEI even though they have reached a semi-agreement that students are the foremost components of the clientele served in HEI.

2.3. Process Improvement in HE Services

The process is a sequence of interdependent and linked operations, where every phase requires one or more resources to transform inputs (data, materials, facilities, etc.) into outputs (end-products, services, or performance). These outputs may be able to act as inputs for the next step until a known goal or final result is reached (BusinessDictionary.com, n.d.). The educational process offers knowledge to students as it generally includes many points which focus on providing information, clarifying and reviewing materials, reinforcing through exercises and testing to confirm learning (Kurtus, 2001).

Indeed a university is a complex system of different processes which has a coherence and consistency to serve a wide set of stakeholders as well as the development of HE in the last two decades where competitive advantage has become an inevitable factor to ensure one's position among other universities (Medosh, 2013). There are many challenges faced by HEIs, such as reducing costs, minimizing resources, and higher expectations for excellent service. Academics are searching for methods to improve education processes in terms of both the academic and administrative fronts in HEIs (Medosh, 2013).

The academic processes contain many activities which should provide a good quality of

service in HE settings to the stakeholders such as course development, curriculum revision for courses, evaluate teaching methods, following students' feedback, as well as counselling. In general, the educational processes include teaching, learning, research and knowledge transformation (Kysilka & Medinsch, 2011). The administrative processes, on the other hand, manage the gamut from hiring new staff for processing travel reimbursement costs to certifying research labs (Medosh, 2013). Administrative processes handle admissions, add/drop courses, purchase materials, improve facilities, hire and budget management (Wikipedia, 2014). Both kinds of processes come up with fresh ideas, which may generate different points of views and unique angles to ensure a certain efficiency and effectiveness in a decentralized university environment.

2.4. Product in Higher Education

The outcomes of HE services are related to a set of combined services which offer the elements of differentiation to ensure the competitive advantage among competitors since the HEIs owe heavily to the promotion processes and improvement in the education market (Kysilka & Medinsch, 2011). Meanwhile, the second point of view refers to considering a student as the result of immaterial production process. Therefore, the educational contribution is the provision of graduates as a product who serve society and add value, thus proving themselves qualified individuals in particular areas and with a specific degree (Kysilka & Medinsch, 2011).

2.5. Staff Attitude towards Implementing the Principles of TQM

According to Ajzen's (1991) theory of reasoned action, the intention of any person is a function of two fundamental elements where the first is personal in nature and the second is reflective of social pressures and influences. The personal norm is a person's positive or negative assessment of performing the behaviour. Ajzen defined attitude as a degree to which individuals have a favourable or unfavourable estimation or translation of the behaviour in question (Ajzen, 1991). This is where an individual's judgment regarding any performed behaviour is restricted to be good or bad. Thus, he/she has a choice to be with or against that particular behaviour. In other words, the attitude towards any behaviour or action is based on people's judgment which depends on their principles or perceptions (Hagen, 2000).

It is commonly believed that practising TQM principles improves productivity in terms of efficiency and performance. This may support and direct the attitude of staff and employees towards implementation of TQM principles. A study conducted by the USA Government Accounting Office, aiming at determining whether the practice of TQM principles had a significant effect on the establishment's operating performance of 20 companies that had contributed to the Baldridge Award Process (BAP) reported that TQM has a positive effect on the companies. (Courtney, 1995). Subsequently, the annual report showed an improvement in the market share by 13%, an 11.6% decrease in costumer criticisms, a 12% declining in the order of processing time, and a drop in defects and faults by 10%. As a result, the exploitation of the TQM practices led to a positive impact on the operational performance (Courtney, 1995).

On the level of higher education institutions, approximately twenty-five universities considered implementing TQM approaches since 1991 in the USA to ensure the continuous quality improvement. Some of them have a positive attitude in terms of embracing the quality principles. Other HEIs sampled depend on David Entin's research in Boston though the outcomes of the research were less than expected due to lack of awareness of the importance to practice TQM principles (Courtney, 1995). Attempts have been made to respond to the question whether academic staff and administrators believe in applying TQM principles at HEIs. One such attempt by Harris (2005) tried to determine the attitude of the academic staff towards the implementation of TQM principles with reference to their suitability in the education sector. The study found that academic staff strongly agree with the core constructs of the TQM approach.

2.6. Subjective Norms of TQM in HE (Barriers and Challenges)

Vuyi (2009) states that many organizations encounter barriers in implementing TQM. Seetharaman, Sreenivasan & Boon (2006) mention that the biggest barriers are the lack of management commitment, and ignoring the importance of customers. Ngai & Cheng (1997) indicate that lack of motivation and skills is one of the most critical barriers.

According to the theory of Reasoned Action, subjective norm is a person's perception of the social pressure on him/her to perform or not perform certain behaviour. Subjective norm is determined by whether significant people approve or disapprove the performance of a behaviour (Ajzen & Fishbein, 2000).Based on this, subjective norm can be divided into two sub-components: normative beliefs and motivation to comply (Perloff, 2003).

The former component reflects a person's belief that a specific individual or group thinks that he should or should not perform a certain behaviour (Perloff, 2003).In other words, the general perception of a person is that most people who are important to him think he should or should not perform a given behaviour (Chieh-Peng & Ding, 2003).These specific individuals or groups may include managers and customers who affect a person's behaviour. White (2009) states that lack of strong support by these groups or individuals can be represented by the concept of subjective norm since it describes the amount of pressure that people significantly perceive from others. Therefore, management and customer constraints faced by the academic staff during the application of TQM principles are examined in this study.

The latter component is the motivation to comply which is defined as the individual motivation to go along with these significant others (Perloff, 2003). Hagen, (2000) states that the motivation to comply refers to a person's willingness to behave according to his perception of how referents think he should behave. White (2009) indicates that individuals differ in their willingness and strength of identification with significant others. Therefore, motivation and skill barriers during the application of TQM principles are also examined.

The foregoing discussion stands on the fact that different elements which measure the perception of academic staff in any given HEI depends on their attitudes and subjective norms which are significantly affected by the behavioural intention of the academic staff

towards the implementing TQM principles. Thus, the current study expects to probe a relationship between attitude and subjective norms towards the behavioural intention of implementing TQM principles. The study therefore, poses the following hypotheses:

Hypothesis 1: Attitude of academic staff towards implementation of TQM principles will have a significant effect on the intention to practise TQM in the HEI.

Hypothesis 2: Subjective norms of TQM in HEI will have a significant effect on the intention to practise TQM in different faculties of the sampled institution.

Hypothesis 3: There is significant difference in the mean score of the academic staff of the HEI in their attitude towards implementing TQM principles due to their experience, job position, academic qualification and the faculties they are attached to.

3. Methodology

3.1. Sample

In order to obtain the best possible coverage of the target population, the study sampled 10% of the academic staff from each faculty of the sampled institution. The target participants include both males and females who have different positions, academic ranks and years of work experience. The sample was chosen using Stratified Random Sampling and the frame was built by relying on database by the institution's Human Resources division, which contain comprehensive data of the academic staff and their specialisations.

In the process, the total number of academic staff was identified as 1920 members, then calculated the proportion (%). The advantages of this kind of sampling in a case like this are clear. It ensures that the resulting sample will be distributed in the same way as the population in terms of the stratifying criterion (Bryman & Bell, 2007).

The study used a well-structured survey instrument. The survey instrument consists of 36 questions using a 5-point Likert scale that includes ratings from Strongly Agree to Strongly Disagree. A survey design provides a quantitative or a numeric description of the sampled institution academic staff's perceptions towards the application of TQM principles in their respective institution.

4. Results

The analysis shows that the distribution of the sample based on the gender was distributed almost equally between male and female respondents (male, 51% and female 49%). In terms of nationality, the analysis shows that the majority of respondents were Malaysians with 67.1%. The remaining 32.9% were international academic staff. The analysis also illustrated that the majority of respondents held a PhD degree while 18.8% of them had a Master degree while 9.9% of the respondents had a bachelor's degree. As for work experience, the analysis illustrated that 35.6% of the academic staff had work experience between 10-20 years, 33.6% of them had less than 10-20, while 30.9% of them had more than 20 years of academic experience. Furthermore, the analysis of academic staff attachment reveals thatthe

International Institute of Islamic Civilisation (ISTAC)and Institute of Islamic Banking and Finance (IIiBF)had the lowest number of faculty members. The analysis illustrated that the majority of the respondents were assistant professors (36.9), 30.2% were lectures, 14.1% associate professors, 4.7% professors and 2.7% were academic fellows. Table 1 presents the details.

Table 1. Demographic variables

Demographic variables		**Number**	**Percentage**
Gender	Male	76	51.0
	Female	73	49.0
Nationality	Malaysian	100	67.1
	International	49	32.9
Academic Degree	Bachelors	14	9.4
	Masters	28	18.8
	PhD	107	71.8
Working experience	Less than 10 years	50	33.6
	Between 11-20 years	53	35.6
	More than 21 years	46	30.9
Marital status	Single	20	13.4
	Married	126	84.6
	Others	3	2.0
Faculty	Kulliyyah of Laws	7	4.7
	KAED	10	6.7
	KENMS	16	10.7

	INSTED	8	5.4
	KENGIN	15	10.1
	KICT	5	3.4
	KIRKHS	19	12.8
	KLM	2	1.3
	CELPAD	27	18.1
	ISTAC	2	1.3
	IIiBF	1	.7
	Kuantan Campus faculties	37	24.83
Job Position	Lecturer	45	30.2
	Academic Fellow	4	2.7
	Assistant Professor	55	36.9
	Associate Professor	21	14.1
	Professor	11	7.4
	Others	13	8.7

4.1. Testing the Hypotheses

In order to test the hypotheses stated earlier, a correlation analysis was conducted to understand the relationships between the variables of the study (1) attitude toward implementation of TQM and intention to practice TQM among the HEI's academic staff, (2) between the subjective norms of TQM and the intention to practice TQM principles among the institution's faculties, (3) investigating whether academic staff attitude towards implementing TQM principles vary across academic staff experience, job position, faculty and academic degree. Tables below depict the means, standard deviations, and *r*-values of the significance of the relationships.

Table 2. Coefficient of correlation between attitude toward implementation of TQM principles and the intention to practice TQM among the institution's academic staff

Variables	Means	SD	Peron correlation	Significant
Customers and stakeholders	3.50	.62	.189*	.021
Intention	4.02	.52		
Employees' engagement and teamwork	3.43	.71	149	.141
Intention	4.02	.52		
Continuous improvement	3.45	.68	.179*	.029
Intention	4.02	.52		
Total degree of attitude	3.46	.62	.183*	.026
Intention	4.02	.52		

Note: *p < .05, **p < .01. (N= 149).

The correlations presented in Table 2show that the general conclusion supports hypothesis 1 which addresses the perception of TQM and intention to practice TQM. With *r*-value of (*r*= .183*).The analysis also shows a significant correlation between the attitude toward customers and stakeholders and intention to practice TQM with *r*-value of (*r*= .189*). Employees' engagement and teamwork and intention with employees' engagement and teamwork with *r*-value of (*r*=149) though positive but found to be insignificant. Finally, the correlation between the perception of continuous improvement and intention to practice TQM principles with *r*-value of (*r*= .179*).

To examine how the attitude toward implementation of TQM principle as an independent variable explains the variation of the intention to practice TQM as a dependent variable a sample linear equation technique was performed as in Table 3.

Table 3.Model Summary of Simple Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate
.183[a]	.033	.027	.51694

The model summary in Table 3 shows the coefficient of determination and the correlation coefficient are very low =R= .183, R^2=.033.

To determine whether the overall model results explain the variance of a dependent variable (intention) the analysis of variance ANOVA was performed and the result is displayed in Table 4.

Table 4.Model Summary of Simple Regression Analysis

Model	Sum of Squares	*df*	Mean Square	*F*	Sig.
Regression	1.358	1	1.358	5.082	.026[b]
Residual	39.283	147	.267		

Total	40.641	148

The results in the ANOVA table supported the claim that there is a significant relationship between the independent variable (the attitude toward the implementation of TQM and dependent variable (the intention to practice TQM) *F*= 5,082, *P*=.026.These results are also supported by a simple linear regression equation that indicated that the attitude toward the implementation of TQM predicts a statistical variation of the dependent variable (the intention to practice TQM). The *t*-value is 14.387, *P*= .026. See Table 5.

Table 5. Coefficient results for Simple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	*t*	Sig.
(Constant)	3.484	.242		14.387	.000
the Attitude toward Implementation of TQM	.155	.069	.183	2.254	.026

The correlations presented in Table 6 show that there is no significant correlation between the subjective norms of TQM and the intention to practice TQM principles among the respondents. The general conclusion rejects hypothesis 2 which tested the subjective norms of TQM and the intention to practice TQM principles among the respondents. With *r*-value of (*r*= .157), the analysis also shows that there was no significant correlation between the normative beliefs and the intention to practice TQM principles with *r*-value of (*r*= .149). However, the analysis illustrates the correlation between the subjective norms of TQM and the intention to practice TQM principles among the respondents.

Table 6. Coefficient of correlation between subjective norms of TQM of and the intention to practice TQM principles among the institution's academic Staff

Variables	Means	SD	Peason correlation	Significant
Normative beliefs	3.26	.65	.130	.113
Intention	4.02	.52		
Motivation to comply	3.42	.69	.149	.070
Intention	4.02	.52		
Total degree of Subjective norms	3.34	.60	.157	.057
Intention	4.02	.52		

(N= 149).

To examine how the subjective norms of TQM principle as an independent variable explains the variation of the intention to practice TQM as a dependent variable, simple linear equation was performed to examine this assumption. The model summery shows the coefficient of determination and the correlation coefficient are very low; R= .157, R^2=.025, $adjR^2$ = .018, SEE = .51932. To ascertain whether the model's overall results explain the variance of a dependent variable (intention) the analysis of variance ANOVA was used as illustrated in Table 7.

Table 7. Model Summary of simple regression analysis

Model	Sum of Squares	df	Mean Square	*F*	Sig.
Regression	97	1	97		
Residual	9.644	47	70	695	.057[b]
Total	0.641	48			

The ANOVA table rejected the claim that there is a significant relationship between the independent variable (subjective norms of TQM and dependent variable the intention to practice TQM) $F(3,47) = 695$, p=.057. These results are also supported by the simple linear regression equation in Table 8, which indicates that the subjective norms of TQM do not statistically predict or explain the variation of the dependent variable (the intention to practice TQM). The t-value is 1.922, p.057.

Table 8. Coefficient results for simple regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
	B	Std. Error	Beta		
(Constant)	3.562	.243		4.675	.000

Attitude toward Implementation of TQM	.138	.072	.157	1.922	.057

4.2. The analysis of variance differences between demographic variables

This analysis was performed in order to test the hypothesis relating to the impact of demographic variables (faculty, experience, academic degree, job position) on the perception of TQM principles. The analysis uses a multivariate test to check the impact of above-mentioned variables on perception. Table 9 demonstrates Type III Sum of Squares which means Mean Square and *F* value.

The analysis of multivariate test has shown that there was a significant difference in the perception of TQM practices due to the variable of academic degree with (*F*= 6.766) and this value is less than 0.05 (thus, sig =.002). The Bonferroni test for confidence interval adjustments shows that the lecturers who hold a Bachelor's degree have a high perception of TQM practices than others with mean 4.01 versus 3.29 of Master's degree and 3.14 of PhD degree. The Bonferroni test in this regard shows that the differences were between the lecturers with a Bachelor's degree and those with Master's degree (0.723) and between those who have a Bachelor's degree and a PhD degree (.847). These values of means were significant at 0.05 level (see Table 10).

On the other hand, the analysis shows that there were no significant differences in the perception of TQM practices due to the variables of gender, nationality, marital status, work experiences, faculty and job positions. The analysis shows that the values of (*F*-test) of these variables were not significant on level of 0.05.

Table 9. Multivariate differences between demographic variables (faculty, experience, academic degree, job position) on the perception of TQM practices

Source	Type III Sum of Squares	*Df*	Mean Square	*F*	Sig.
Corrected Model	13.947[a]	28	.498	1.411	.105
Intercept	75.287	1	75.287	213.206	.000

Gender	.866	1	.866	2.452	.120
Nationality	2.463E-005	1	2.463E-005	.000	.993
Academic Degree	4.842	4	1.210	3.428	.011
Working experience	.349	2	.175	.494	.611
Marital status	.759	2	.380	1.075	.345
Faculty	7.532	12	.628	1.777	.059
Job Position	1.787	5	.357	1.012	.414
Error	42.374	120	.353		
Total	1841.037	149			
Corrected Total	56.321	148			

Note: *p < .05, **p < .01.

Table 10. Bonferroni test for confidence interval adjustments in the perception of TQM practices due to academic degree

Academic Degree	Means	Bachelors	Masters	PhD
Bachelors	4.01		.723*	.874*
Masters	3.29			
PhD	3.14			

Note: *p < .05, **p < .01.

4.3. Summary of the Findings

The tables above illustrated that the first research hypothesis is supported by the result, whereas the second hypothesis relating to the correlation between the subjective norms and intention is rejected. On the other hand, the analysis failed to reject the null hypothesis relating to the mean score of sampled institution academic staff towards the attitude of implementing TQM principles due to the experiences of academic staff, job position, and faculty. It rejected the null hypothesis relating to the variance of variables of academic degree on attitude.

Table 11. Summary of hypothesis testing

Hypothesis	Variables	Path	Estimate	Significance Level	Supported/Not Supported
H1	Att → Int	Causal correlation	0.183	0.026	Supported
H2	Subj→Int	Causal correlation	.157	.057	Rejected
H3	Gender→ Attitudes	Null hypothesis	.965	.328	Supported
	Nationality→ Attitudes	Null hypothesis	.191	.826	Supported
	Academic Degree→ Attitudes	Null hypothesis	5.608	.005	Rejected
	Working experience → Attitudes	Null hypothesis	.141	.869	Supported
	Marital status→ Att	Null hypothesis	1.180	.310	Supported

Faculty→ Attitudes	Null hypothesis	.568	.725	Supported
Job Position→ Attitudes	Null hypothesis	1.012	.414	Supported

5. Conclusions

A set of conclusions relating to the hypotheses was revealed. First, regarding the first hypothesis, the analysis illustrated that there is a positive significant correlation between attitude toward TQM implementation (customers and stakeholders, employee engagement and teamwork, continuous improvements and total degree of attitude) and the intention to practice TQM among sampled institution faculties. According to TRA, behavioural intention is affected by a person's attitude. Second, concerning the correlation between the subjective norms and intention, the analysis manifests that there is no significant correlation between the subjective norms of TQM and the intention to practice TQM principles among institutional staff.

On the level of variance differences stated in the third hypothesis, the analysis shows that there were no significant differences in the perception of the practices of TQM principles due to the variables of gender, nationality, marital status, work experiences, faculty and job positions.

On the other hand, the analysis of multivariate test has shown that there is a significant difference in the perception of TQM practices due to the variable of academic degree. The Bonferroni test for confidence interval adjustments showed that the lecturers who hold a Bachelor's degree have a higher perception of the practices of TQM principles than others. This postulates that the sampled institution should invest in academic staff desire to contribute positively to the implementation of TQM principles by opening a chance for all academic staff to show their recommendations and suggestions.

To summarize, the study has investigated the perceptions of one tertiary academic staff towards implementation of TQM principles by covering all institutional staff for a complete picture on what academic staff think about TQM practices in the university. The findings help policy makers direct their decisions towards the improvement of services provided and ensure continuous improvement. Furthermore, the Office of Corporate Strategy and Quality Assurance can benefit from the results by focusing on spreading awareness about the meaning and importance of TQM practices. The OCSQA should enhance the attitudes of the university staff towards implementation of TQM principles and avoid the obstacles which may prevent academic staff excel in their academic functions.

6. Contributions and Implications

This study consists of many positive implications for HEIs where it confirms that the TQM philosophy can be applied at the level of universities and colleges. The implementation of TQM principles is very important and can improve the work environment to increase the level of satisfaction within the university academic staff.

The findings also can encourage institutions to consider implementing TQM principles, where it can be used to learn how and why TQM should be adopted in HE. Top management can also learn how to cooperate with academic staff by giving them a chance to express their opinions and ideas for the improvement of the learning processes.

The findings of this study reveal that all academic staff were committed to employing the general approach of TQM philosophy as a means towards quality improvement. This leads to a better understanding on the part of students about the material and eventually making it key to success in the field of education. Moreover, the perceptions of academic staff towards the implementation of TQM principles are crucial in terms of ensuring excellence and continuous improvement.

The perceptions of academic staff have an overwhelming positive impact in directing policy makers in HE. It also assists them evaluate the level of each quality dimension in their own institutions while helping them measure the effectiveness of their provided programs based on student satisfaction. In addition, top management can get a deeper understanding of the quality dimensions and their practices when they extend their consultations to include all academic staff since they play pivotal role between students and the administration. Besides, they may support the conceptual relationships among several components in the applied TQM models. These conditions can become considerations in planning, implementation plans and quality improvement programs which are likely to benefit the HE sector afterwards.

Finally, top management should pay attention to taking the perceptions of academic staff seriously at the faculty level; they may even acquire a good picture on the reality of TQM and on that basis develop an effective policy to adopt TQM practices in the academic and administrative processes. The policy makers should motivate academic staff to enhance their attitudes towards the commitment to quality programme as well as the quality of course activities besides directing the customer feedback to the policy makers.

7. Limitation of the study

There are several limitations in this study, which offer directions for further research. The scope of the study is limited as it was conducted among the academic staff *per se*, which means the results and their interpretation cannot be generalized for other fields of study or HEIs. Another possible limitation can be relevant to the verity that the participants cannot be pushed to answer the questions in the questionnaire seriously. As a result of the change in time and place of study, the respondents may or may not respond to the questions in the same way. Demographically, it is clear that some of the participants do not have sufficient experience and knowledge about the concepts of TQM and how it is important to HEIs to provide better quality services. Such factors prevent them from properly judging the provided sections into the questionnaires. This may lead to confusing results.

It is obvious that the study sampled only one HEI. This limitation suggests that future research works should sample more than one HEI to include the remaining HEIs nationwide. This inclusion is necessary for the increment of precision level, the validity of the conclusions reached, generalizability of the findings and meeting the requirement of reasonable representativeness.

Consequently, the high proportion of the reliability does not assure the correctness of the questionnaire which is confirmed by many previous studies that the instrument used is limited due to the fact that it is a product of the human mind and so cannot capture a particular fact from a single dimension.

8. Recommendations

According to the results of this study and the implications arising thereof, the following recommendations and suggestions can be proposed. The recommendations are related to the strategies that policy makers can exploit in their future plans to improve TQM concepts within the universities.

It should be observed that the current study devotes its efforts at collecting a wide array of data related to implementing TQM principles in HE sector. This deals with how the perceptions of a given academic staff might support the TQM philosophy by enhancing their attitudes towards the implementing TQM principles. Future research work can use the same practical and theoretical scope to ensure the achieved findings or provide new results on the importance of TQM practices in educational institutions. It may also be helpful to students and the administrative staff in gathering more information on several perceptions of TQM implementation. Where these recommended studies might give information and more precise fact evaluation as it is closer to the customer and more coherent with the TQM philosophy.

The study uses quantitative approach and depends on the questionnaire as an instrument to gather data. To examine the achieved results, it is preferable to use mixed-method of adopting qualitative research, then making comparisons between the two techniques. Depending on the same sample, research may be conducted to provide new information on perceptions of academic staff, which may potentially enrich the outcomes of the current study as well as highlighting issues that have not been covered through the survey approach.

References

Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes, Journal*(50).

Ajzen, I., & Fishbein, M. (2000). Attitudes and The Attitude-Behaviour Relation: Reasoned and Automatic Process. . *European review of social psychology Journal. Chichester, UK: Wiley, 11*, 1-33.

Ali, H. M. & Musah, M. B. (2012). Investigation of Malaysian higher education quality culture and workforce performance. *Quality Assurance in Education*, 20(3), 289-309. DOI:

10.1108/09684881211240330

Bryman, A., & Bell, E. (2007). *Business Research Methods*. New York: Oxford.

Bunting, I. A. (1993). Rationalisation, quality and efficiency, South African Journal of Higher Education. 7(2), 17 – 27.

BusinessDictionary.com. (n.d.). BusinessDictionary.com: over 20,000 Terms. Clear. Concise. Comprehensive. Retrieved 23rd Febuary, 2014. From http://www. businessdictionary. com/definition/process.html

Chieh-Peng, L., & Ding, C. G. (2003). Ethical ideology, subjective norm, and peer reporting intentions using an individual-situation moderator. *Asia pacific Management review 8*(3), P: 311-336.

Chua, C. (2004). Perception of Quality in Higher Education. *AUQA Occasional Publication.*

Courtney, J. E. (1995). Total Quality Management in Higher Education: Perceptions of The Chief Academic Officer of the Results of implementing TQM in Their Higher Education Institution. Unpublished Ph.D dissertation.American University. United States of America.

Deming, E. W. (1986). *Out of crisis.* Cambridge: MIT Centre for Advanced Engineering Study

Evans, J. R., & Lindsay, W. M. (2011). *The Management and Control of Quality* (8 ed.): South-western Cengage.

Flores-Molina, J. C. (2011). *A Total Quality Management Methodology for Universities.*PhD FIU Electronic Theses and dissertations Florida International University.

Garvin, D. A. (1988). *Managing Quality*. New York: Free Press.

Grey, B., Lyle, Y., & Mel, A. (1994). *Beyond Total Quality Management* Singapore: McGraw-Hill Inc.

Hagen, I. v. d. (2000). The relative weight of attitude and subjective norm as determinants of behavioural intention: The promotion-prevention dichotomy as a measure for behavioural and individual moderators. Unpublished MA Thesis. The Hebrew University of Jerusalem: Israel.

Harris, D.T. (1995). Educators attitudes towards the appropriateness of total quality Management to education. Dissertation Abstracts International (UMINo.9539669).

Hewitt, F., & Clayton, M. (1999). Quality and Complexity-Lessons from English Higher Education. *International Journal of Quality & Reliability Management. MCB University Press 16*(9). doi: 0265-671X.

Kurtus, R. (2001). The Education Process. Retrieved 27th Febuary, 2014. From http://www.school-for-champions.com/education/process.htm

Kysilka, D., & Medinsch, S. (2011). Total quality management in higher education services basic principles. *Journal of Tibiscus University, Romania*.

Manivannan, M., & Premila, K. S. (2009). Application of Principles of Total Quality Management (TQM) in Teacher Education Institutions. *Journal of College Teaching & Learning, 6*(6).

Medosh, M. (2013). Getting The Faculty Ready For Growth Through Process Improvement *Tertiary Education Management Conference (TEMC).*

MOHE. (2013). Ministry of Higher Education Official Website Retrieved 11th/ Nov 2013, from http://www.mohe.gov.my/educationmsia/index.php?article=mohe

Najafabadi, H. N., Sadeghi, S., & Habibzadeh, P. (2008). *Total Quality Management in Higher Education, Case Study: Quality in Practice at University College of Boras.* Unpublished master's thesis. University College of Boras.

Ngai, E. W. T., & Cheng, T. C. E. (1997). Identifying potential barriers to total quality management using principal component analysis and correspondence analysis. *International Journal of Quality & Reliability Management 14*(4), 391-408.

Perloff, R. M. (2003). *The Dynamics of Persuasion ,Communication and Attitudes in the 21st Century* (2nd ed.). Mahwa New Jersey: Lawrence Erlbaum Associates.

Quality Survey (2013). Study in Malaysia. Retrieved September 23rd, 2013. From http://www.topuniversities.com/where-to-study/asia/malaysia/guide

Sila, I. and Ebrahimpour, M. (2005). Critical linkages among TQM factors and business results", International Journal of Operations & Production Management, Vol. 25 No. 11, pp. 1123-55. DOI:10.1108/01443570510626925

Seetharaman, A., Sreenivasan, J., & Boon, L. P. (2006). Critical success factors of total quality management. *Journal Quality and Quantity, 40*(5), 675-695.

Steeples, M. M. (1992). *The Corporate Guide to the Malcolm Baldrige National Quality Award Business One Irwin.* Illinois: Homewood.

Unal, O. F. (2001). Application of Total Quality Management in Higher Educational Institutions *Journal of Qafqaz university*(7).

United Nations Country Team, Malaysia (2005). Malaysia: achieving the millennium development goals, successes and challenges. United Nations Development Programme: Kuala Lumpur, Malaysia.

Vuyi, S. (2009). Barriers in implementing total quality management in Kraaifontein public health care facility in the Western Cape.Unleashed MA Thesis. University of Stellenbosch, Stellenbosch.

White, K.M. (2009). Social influence in the theory of planned behaviour: The role of descriptive, injunctive, and group norms. *British Journal of Social Psychology, 48*(1), 135-158.

Wikipedia. (2014). Lean higher education. Retrieved 25th March 2014, from

http://en.wikipedia.org/wiki/Lean_higher_education

Zakuan, N., Saman, M., Muhamad, Z., Ariff, M., & Shalini, M. (2012). Critical success factors of total quality management implementation in higher education institution: a review. International Journal of Academic Research in Business and Social Sciences, 2(12), 19-32.

Author Bibliography

Naail Mohammed Kamil is a senior lecturer at the Faculty of Business, Accountancy and Management at SEGi University, Kota Damansara. His work focuses on General Management and Management from religious perspectives, particularly the Islamic perspective on spirituality, social responsibility, organizational citizenship behaviour (OCB) and ethics. He can be contacted on naailkamil@segi.edu.my

LoutfiBoulahlib was a Master of Management student at Graduate School of Management, International Islamic University Malaysia.

Mohammed BorhanddenMusah is a senior lecturer of Educational Administration. His work focuses on the management of higher learning institutions, quality management, followership and workforce performance. He can be contacted on mbmusaus@yahoo.com

Shafeeq Hussain Vazhathodi Al-Hudawi is a senior lecturer at Darul Huda Islamic University. His work focuses on educational philosophy, educational theory, curriculum theory and foundations and preparing measurement tools using Quantitative Skills. He can be contacted on shafeeq75@gmail.com

Copyright Disclaimer