

Determinants of Organisational Excellence of Malaysian Public Universities

¹Yeoh Khar Kheng and ²Andrew Chiang Tit Yean

¹School of Business Management, Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia

²School of Business, SEGI University College Penang, Jalan Green Hall, 43,
10200 Georgetown, Malaysia

Abstract: The purpose of this study is to analyze the relationship of transformational leadership, entrepreneurial orientation, quality management practices and effective entrepreneurial education on organizational excellence of Malaysian public Universities. Data was collected through mail survey and a sample of 255 responses was used for analysis. Using multiple regression analysis, the information provided by the respondents was used to test the hypotheses of the theoretical model of the study. The results show that only transformational leadership, quality management practices and effective entrepreneurial orientation has a significant positive relationship with organization excellence while entrepreneurial orientation had been found to be insignificantly related organizational excellence. The results from this study have implications that make modest and yet valuable contributions to the body of knowledge about factors that influence organizational excellence while extending the scope and applicability of the resource based view theory with respect to a different operating environment from previous studies.

Key words: Organisational excellence, transformational leadership, entrepreneurial orientation, quality management practices and effective entrepreneurial education, Malaysia, implications

INTRODUCTION

Research has shown that higher education plays an important role in the economic development of a nation (Loganathan *et al.*, 2010) given its ability to develop and maximize human potential resulting in an intellectually, spiritually, emotionally, physically balanced and harmonious individuals (Loganathan *et al.*, 2010). Consequently, Malaysian public Universities are aiming to transform higher education from the status quo of good to excellent, especially in terms of university ranking, qualitative and quantitative research, an increase in the demand for graduates sought after by the industry (local and abroad), producing world class lecturers and to establish a global brand name (MHE, 2016). The term “organizational excellence” is used in public sectors, whereas “business excellence” is used in private sectors, both terms connote the same meaning (McAdam, 2000). Similar measures have been adopted by Malaysian public Universities using the SETARA rating system to focus on quality in achieving performance excellence and to ensure they are doing well (MHE, 2016).

The government of Malaysia has invested RM15 billion in public universities so they can constantly

improve in order to transform higher education into one of excellent stature by raising the bar on quality to prevail throughout the world (MF, 2015). At the same time, the government has launched the quality revolution and implemented various initiatives like MQA (Malaysian Qualification Agency), total quality management, ISO 9000 series, 5S and customer charter as a means to improve quality (Fauziah and Morshidi, 2011; Othman and Abdullah, 2007; Agus and Abdullah, 2000). University ranking is a major challenge for universities as it symbolizes the performance excellence of a university. In a statement on the latest QS world university rankings (QSAR, 2015) reported that although Malaysian public Universities have improved last year, the overall ranking of Malaysian public Universities compared to the last 10 years has deteriorated due to lack of performance excellence. One of the examples was University Malaya which fell from one of the top 100 Universities in the world a ranking held for the last 20 years to not even making the top 100 ranking. Moreover, there are 20 public Universities in Malaysia but only 7 Universities made it to the world ranking (Table 1).

Currently, there is only 1 university in the top 200 globally, 2 universities in top 300 globally and only 1

Table 1: World QS university ranking for the years 2014/2015

Ranking position	University name
151	Universiti Malaya (UM)
259	Universiti Kebangsaan Malaysia (UKM)
294	Universiti Teknologi Malaysia (UTM)
309	Universiti Sains Malaysia (USM)
376	Universiti Putra Malaysia (UPM)
501-550	International Islam University Malaysia (IIUM)
651-700	Universiti Teknologi Mara (UiTM)

Table 2: Asia QS university ranking for the years 2014/2015

Ranking position	University name
32	Universiti Malaya (UM)
56	Universiti Kebangsaan Malaysia (UKM)
57	Universiti Teknologi Malaysia (UTM)
66	Universiti Sains Malaysia (USM)
76	Universiti Putra Malaysia (UPM)

Quacquarelli Symonds World Ranking 2015

University in top 50 Asia with QS ranking (Table 1 and 2). At the same time, even though the Malaysian public universities experienced rapid development and made great progress in education and research over the past two decades (Zainal and Zainab, 2011) and the number of publications has increased from 34th place in 2009, 23rd place in 2013, the quality of publication still needs to be improved as Malaysia has the least average number of citations per publication when compared to the years 2014 (MHE, 2016). While the number of graduates with bachelor degrees has also increased by 29% from 72,065 in 2005-93,007 in 2010 there is also an increased in the amount of graduate unemployment (MOHE, 2008). Currently, at least 160,000 graduates between the ages of 20 and 24 are unemployed-forming 40% of the total jobless pool. This situation occurred when many graduates were found to be a lack of quality and unable to meet the competency requirements of the job market (Syed, 2015) and thus being rejected by many employers and will continue to be rejected if the graduates do not undergo effective entrepreneurial education (Omer *et al.*, 2012). On the other hand, the performance of the public universities is also studied based on the enrollment of international students. Given the target of 250,000 Foreign students as stated in the Malaysian higher education blueprint, it is indeed far reaching as at present there are only 107,838 international students studying in Malaysian public Universities (MHE, 2016). As such this study aims to determine the factors that may affect the public university excellence based on the prevailing issues as discussed. Consequently, the main objective of this study is to examine the relationships between transformational leadership, entrepreneurial orientation, quality management practices, effective entrepreneurial education and the organizational excellence of Malaysian public Universities.

Literature review

Transformational leadership and organizational excellence:

The influences of transformational leadership in organizational excellence had been studied by many past researches. Transformational leadership can create competitiveness within an organization’s environment which in turns triggers organizational excellence Danskin *et al.*, 2005). Likewise, Wang *et al.* (2011) argued that organizations require transformational leaders rather than transactional leaders. They further asserted that transformational leadership would motivate employees to work harder to achieve excellence in performance. As such, transformational leadership had a positive effect on subordinates in the areas of performance appraisal, training and development as well as succession planning When a leader intellectually affecting the followers, it will encourage followers not only to perform well but also enhances their loyalty towards the organization (Rafferty and Griffin, 2004). The importance of transformational leadership towards organizational excellence was further recommended in the study by Pinar and Girard (2008). Their study on 200 companies found employee commitment to contribute to the success of the organization can be influenced by high qualities of transformational leadership. The study also suggested that transformational leadership should focus on three areas which are constant innovation, committed people and valuing employees in the attempt to achieve organizational excellence (Pinar and Girard, 2008). The role played by transformational leadership on organizational excellences was further concurred by Park and Dahlgaard (2012) when they pointed out that it is indeed a prerequisite to create and generate excellence. As a result, it is necessary for leadership skills to be developed through training and education in order to ensure the upholding of right values and possession of competencies.

Even though, past research had found a positive correlation between transformational leadership and organizational excellence performance (Nitin *et al.*, 2003), nevertheless it is still an insufficient establishment of the relationship between transformational leadership in organizational excellence among the public universities and government agencies where prioritization of profit maximization is not treated as an important objective (Lee *et al.*, 2005, 2012). Consequently, this study attempted to answer the research gap between organizational excellence and transformational leadership in the context of public universities in Malaysia. Therefore, this study posits that a transformational

leadership will influence and motivate the followers to get involved in the organizational to achieve sustainability, quality and excellent performance. Hence, drawing on the past literatures we would like to hypothesize that:

- H₁: transformational leadership will have a positive influence on organizational excellence

Entrepreneurial orientation and organizational excellence: Entrepreneurial orientation was a purposeful enactment of entrepreneurship. Li *et al.* (2009) referred it as a firm's strategic orientation involving the capturing of specific entrepreneurial aspects of decision-making styles like being innovative, taking calculated risks and pro-activeness. Entrepreneurial orientation therefore was the predisposition of an individual, group and/or organization towards being innovative in risk-taking activities and aggressively pursuing it with the aim of exploiting a discovered opportunity. Entrepreneurial orientation was viewed as a firm-level construct before it was later applied to individuals in the form of dispersed entrepreneurship in an organization and it is related to a process that concerned the practices, methods and decision-making styles that managers used as a strategic choice alternative in a dynamic generative process (Richard *et al.*, 2004).

Entrepreneurial orientation had been found to impact on organizational excellence in various ways. Entrepreneurial orientation had been found to enhance the effect of knowledge management on innovations in organizations. Organizational excellence involved continuous innovation in products and strategies. As such entrepreneurial orientation represents an organizational climate which helped in knowledge sharing, application and innovation (Li *et al.*, 2009). Additionally, entrepreneurial orientation had also been studied with regards to ethnic. It was found to improve performance and create a bridge between an organization and the opportunities available by building networks in underserved markets (Selvarajah and Masli, 2011). In the instance of ethnic entrepreneurial orientation organizations were able to venture into the untapped markets, utilized the ethnic, social capital, established their presence in the ethnically-dominated area and provided diverse products for improved organizational performances (Selvarajah and Masli, 2011). In addition, entrepreneurial orientation had helped social entrepreneurs in the provision of social amenities where social entrepreneurs having social capitals problem (Thompson, 2002). Consequently, new ventures often failed mainly due to the firms unable to appreciate the criticality of entrepreneurial orientation. Indeed

entrepreneurial orientation contributes to excellent performance and the interactions between entrepreneurial orientation and organizational excellence do have a positive relationship (Chen *et al.*, 2007).

In relation to this, educational institutions have also regard the need to have an entrepreneurial orientation in their attempt to raise funds, responding to industry demands, adapting to changes in market and facing challenges in the economy (Yokoyama, 2006). This habit of exploiting entrepreneurial orientation have been widely practiced by the Japanese and UK Universities in solving identified problems in higher education institutions, even though all the universities had displayed different grades of entrepreneurial orientation towards organizational excellence (Yokoyama, 2006). Although, entrepreneurial orientation had been regarded as an important consideration for organization excellence among the universities in abroad there seems to be a lack of evidence of such practices in the context of Malaysia. This condition has necessitated the need to further confirm the influence of entrepreneurial orientation on organizational excellence among the universities in Malaysia. Thus, we hypothesize that:

- H₂: entrepreneurial orientation will have a positive influence on organizational excellence

Quality management practices and organizational excellence: Quality management practices are best defined as one system and the set of interconnected procedures (Hoyle, 2001). It can also be regarded as an attempt to establish a quality policy and quality objectives and how to achieve those objectives (Hoyle, 2001; Tricker, 2012). Through quality management practices, the needs of the customers will be identified, designed, developed, produced, delivered with supporting products or services (Summers, 2009). Several empirical studies have been carried out to test the relationship between quality management practices and organizational performance. The empirical evidence suggested that quality management practices bring increased quality and productivity, along with improved customer and employee satisfaction (Terziovski, 2006). The studies have also provided evidence that certain quality management practices have a significant and positive effect on productivity improvement and customer satisfaction in manufacturing and industrial (Terziovski, 2006). The studies on quality management practices by Agus (2005) and Fuentes *et al.* (2000) did agree that commitment is an important factor that directly or indirectly influencing quality management practices to organizational performance. As emphasized by

Poksinska *et al.* (2006) the quality management practices cannot be operated without the commitment and understanding of the employees. Studies by Costa and Lorente (2007) have also revealed that there were positive outcomes with quality management practices and organizational performance. However, not all quality management practice implementation success in delivering the desired organizational performance benefits (Feng *et al.*, 2007; Oakland and Tanner, 2007). In fact, Saunders *et al.* (2008) found that organizations fail to implement up 70% of their quality management practice strategic initiatives and quality management practices may add disappointedly little to organizational performance and satisfaction of the customers.

Even though there is positive relationship between quality management practices and guarantee of competitive advantage for organizations (Danskin *et al.*, 2005) had been documented but nothing was stated to show how it affected organizational excellence of higher educational institutions. Though, the ultimate impact of quality management practice of organizational performance had been studied by several authors but there are no studies showing a relationship between quality management practices and organizational excellence (Lee *et al.*, 2005). Similarly, Armstrong (2006) also concurred that there is still lack of study on how quality management practices impacted on higher educational institutions. Therefore, this study would like to investigate to what extent quality management practices influence organizational excellence among the local universities in Malaysia. As such, we hypothesized that:

- H₃: quality management practices will have a positive influence on organizational excellence

Effective entrepreneurial education and organizational excellence: An entrepreneurial education in general is defined as an education that provides people with innovative enterprise skills to seek the opportunities by producing new entrepreneurial activities (Mahmood and Yu, 2005). Events such as conferences, seminars, short courses and trainings are common activities offered by the formal entrepreneurial education at higher education institutions (Morris *et al.*, 2001). On the other hand, effective entrepreneurial education is defined as an education more than business management or administration and it is an education that teaches students in start-up a new business that related to a combination of experience, skills, knowledge, generate

new ideas, knowledge to recognize business opportunity, environmental evaluation, look for customer insights and venture capital (Cheng *et al.*, 2009).

Many universities in Malaysia have introduced entrepreneurial subjects or major in the entrepreneurial program since in the mid-1990's but none of the universities, especially Malaysian public universities carry out effective entrepreneurial education (Cheng *et al.*, 2009). Notwithstanding the significance of entrepreneurship in Malaysia's economy, the effectiveness of entrepreneurial education offered in Malaysian public Universities remains debatable (Cheng *et al.*, 2009). An effective entrepreneurial education is significance in today's society but what constitutes effective entrepreneurial education is undoubtedly challenging ground (Nabi and Holden, 2008). In the context of Malaysia, the implementation of effective entrepreneurial education under phase two of ministry of higher education action plan for the years 2011-2015 was to increase the entrepreneurial ability among university students through Malaysian public Universities in order to boost up the economy of Malaysia (MHE, 2016). In line with this intention this study seeks to investigate whether effective entrepreneurial education has a relationship with organizational excellence of public universities given that past researches had shown that there is a relationship between the effectiveness entrepreneurial educations and organizational performance. Thus we, hypothesized that:

- H₄: effective entrepreneurial education will have a positive influence on organizational excellence

Theoretical underpinning-resource based view: The Resource Based View (RBV) was first posited in the literature by Wernerfelt (1984) with the intention to discuss that a firm or an organization's success is largely determined by its own resources and controls. In fact, the RBV theory assumes that a firm or organization, heterogeneous resources allows them to compete with its resources with other organizations in order to have better performance and excellent achievement (Peteraf, 1993). Resources are typically defined as capacities or assets (tangible and intangible) such as knowledge, information organizational processes and organization's attributes (Barney, 1991). Furthermore, Barney (1991)'s concluded four key attributes that a resource must possess comprised of valuable (worth something), rareness (exclusive), non-imitable (difficult to duplicate) and imperfectly substitutable (difficult to sell or trade or less

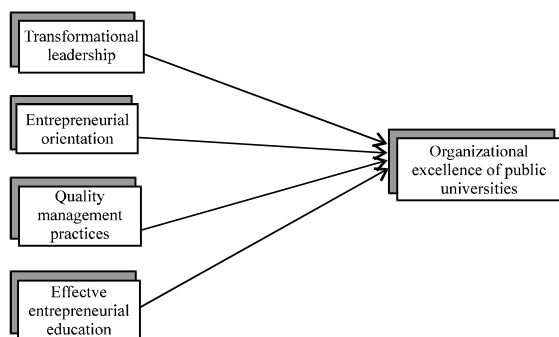


Fig. 1: Research framework

mobile). The theory supports the aims of the present study which look at the performance of organizations (Malaysian public Universities) to achieve excellence in a competitive environment by using resources and assets as suggested by Peteraf (1993), Varadarajan and Cunningham (1995). The importance of a resource in expounding the excellence of organizations as reflected in the RBV theory had also been tested in the study by Zardini *et al.* (2015) on the financial performance of IT departments of organizations. They found that resources do play an important role in the financial performance of those IT departments and leads to the achievement of organizational excellence. Through the review of literatures this research framework consists of four independent variables and one dependent variable that underpinned by Resource Based Value (RBV) theory as depicted in Fig. 1.

MATERIALS AND METHODS

A mail survey was sent out to collect data from 407 individuals comprised of academic leaders such as deans, deputy deans, directors and heads of academic departments, program coordinators and all their deputies of every public university in Malaysia. At the end of the period of study, 266 of survey forms were returned. However, given that 11 questionnaires were rejected due to incomplete data, the final useable responses were 255 resulted in a response rate of 63%. This rate had met the minimum suggested by Sekaran and Bougie (2010) whom asserted that a 30% response rate is considered acceptable for questionnaires and given that the prevailing response rate of mail survey done in Malaysia that commonly falls in the 10-20% range (Ramayah *et al.*, 2005) as such can be regarded as very good. Data from 13 respondents were omitted using the Mahalanobis D2 for outlier test. Finally, data from 255 respondents were used for further analysis using SPSS 23. The respondents being

profiled based on which university they were attached to types of academic leaders, number of experience in quality initiative work and estimated of employees in academic departments. The largest percentage of respondents came from USM (9.1%) while the least were from UTeM (2.2%). In terms of types of academic leaders, the majority of the respondents were those holding the position of coordinators (35.1%) while 33.5% of the staff have approximately 16-20 years of involvement in the quality initiative work. Finally, most of the respondents (40.9%) stated that the department they came from having approximately 20 employees.

In order to test the construct validity, factor analysis of all of the variables was carried out in this study. The factor analysis was preceded by the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's Test of Sphericity. A KMO values which are >0.60 (Coakes, 2010) and a large and significant Bartlett's test ($p < 0.05$) (Hair *et al.*, 2010) would indicate factorability. A factor loading of 0.30 for each item will be accepted to represent a factor based the threshold value to meet the minimal level for interpretation of the structure (Sekaran and Bougie, 2010; Hair *et al.*, 2010). The results of the factor analysis as shown in Table 3 confirmed the validity of each of the variables based on the suggested guideline shows that all items of the variables under study were loaded onto a single factor with eigenvalue >1.0. Specifically, the variable organizational excellence has a percentage of variance explained about 72.83% while transformational leadership has a percentage of variance explained amounted to 70.53%. On the other hand approximately 74.14% of variance explained can be seen in the variable entrepreneurial orientation. In addition, the variable quality management practices and effective entrepreneurial education has a percentage of variance explained about 70.12 and 74.19%, respectively. Based on the factor analysis, all variables contained items with loadings of greater than 0.60 which fulfilled the minimal level for interpretation of the structure.

Consequently, reliability test was conducted for each of the construct of interest. The most common way of measuring internal consistency is in using the Cronbach's alpha coefficients which will determine the average correlation among all items of the scale (Pallant, 2013). A research should have Cronbach's alpha coefficients above. The 70 on a scale (Hair *et al.*, 2010; Pallant, 2013). The Cronbach's alpha values of all factors (organizational excellence, transformational leadership, entrepreneurial orientation, quality management practices and effective entrepreneurial education) were ranged from 0.888-0.954 and thus reflect a good level of internal consistency as shown in Table 4.

Table 3: Summary of validity analyses

Variables	Organisational excellence	Transformational leadership	Entrepreneurial orientation	Quality management practices	Effective entrepreneurial education
Y1	0.866				
Y2	0.850				
Y3	0.849				
Y4	0.841				
Y5	0.699				
Y6	0.641				
Y7	0.629				
Y8	0.552				
Y9	0.536				
Y10	0.511				
Y11	0.735				
Y12	0.697				
Y13	0.684				
Y14	0.667				
Y15	0.526				
Y16	0.833				
Y17	0.708				
Y18	0.682				
Y19	0.628				
Y20	0.844				
Y21	0.732				
Y22	0.854				
Y23	0.840				
Y24	0.780				
Y25	0.576				
X1		0.887			
X2		0.837			
X3		0.813			
X4		0.679			
X5		0.678			
X6		0.665			
X7		0.607			
X8		0.588			
X9		0.549			
X10		0.876			
X11		0.835			
X12		0.800			
X13		0.795			
X14		0.721			
X15		0.652			
X16			0.861		
X17			0.833		
X18			0.817		
X19			0.809		
X20			0.771		
X21			0.696		
X22			0.664		
X23			0.623		
X24			0.568		
X25			0.926		
X26			0.879		
X27			0.641		
X28			0.842		
X29			0.707		
X30				0.798	
X31				0.762	
X32				0.721	
X33				0.720	
X34				0.705	
X35				0.586	
X36				0.860	
X37				0.811	
X38				0.779	
X39				0.712	
X40				0.840	
X41				0.796	
X42				0.769	

Table 3: Continue

Variables	Organisational excellence	Transformational leadership	Entrepreneurial orientation	Quality management practices	Effective entrepreneurial education
X43				0.894	
X44				0.714	
X45				0.531	
X46					0.888
X47					0.888
X48					0.872
X49					0.856
X50					0.832
X51					0.829

Table 4: Reliability analyses

Factor	Cronbach's alpha
Organisational excellence	0.888
Transformational leadership	0.954
Entrepreneurial orientation	0.924
Quality management practices	0.908
Effective entrepreneurial education	0.929

This study used validated instruments from empirical articles and journals. Organizational excellence was operated based on definition by Cullen *et al.* (2003). There is twenty five of the item scales adopted in the questionnaires. As for transformational leadership all fifteen items of the questionnaire are adapted from Rafferty and Griffin (2004) while the measurement of entrepreneurial orientation was adapted from Lumpkin and Dess (1996). There were eighteen items contained in the measurement of quality management practices that was adapted from Lau *et al.* (2004), Sohail and Teo (2003), Terziovski (2006) and Zhang *et al.* (2000). On the other hand, there were six items to measure effective entrepreneurial education which have been adapted from Keat *et al.* (2011). The remaining parts of the measurement requested for demographic information of the respondents.

RESULTS AND DISCUSSION

In order to determine the strength of the relationship between variables of this study, the Pearson correlation test was applied. Table 5 shows the result of the inter-correlation between the variables. The bivariate correlation test revealed that at $p < 0.01$, all the independent variables comprised of transformational leadership, entrepreneurial orientation, quality management practices and effective entrepreneurial education have a positive relationship with organizational excellence. The correlation coefficients (r) of these variables show relationship strength ranging from 0.214-0.669 as seen in Table 5. At the same time all the correlations were found to be less than the threshold of 0.90 thereby indicating the absence of multicollinearity problem (Hair *et al.* 2010).

The hypotheses and the research questions of this study were answered by using the multiple regression analysis. This method was used to analyze the relationships between the predictor (transformational leadership, entrepreneurial orientation, quality management practices and effective entrepreneurial education) and the outcome (organizational excellence). The result of the analysis can be seen below in Table 6.

Based on Table 6, the result of the R^2 ($R^2 = 0.424$, $F = 5.938$, $p < 0.001$), showed that transformational leadership, entrepreneurial orientation, quality management practices and effective entrepreneurial education had an impact of 42.4% toward explaining organizational excellence. Table 6 also shows that only three variables can be a significant indicator of organizational excellence: transformational leadership ($B = 0.233$, $t = 3.397$, $p < 0.001$), quality management practices ($B = 0.248$, $t = 3.286$, $p < 0.001$) and effective entrepreneurial education ($B = 0.230$, $t = 3.319$, $p < 0.001$). Nevertheless, entrepreneurial orientation has found to be insignificant ($B = 0.124$, $t = 2.437$, $p > 0.001$) as compared to other three variables in a multivariate context. Consequently this study shown that quality management practices were the most significant variable that relate to organizational excellence in Malaysian public Universities as compare to transformational leadership variable, entrepreneurial orientation variable and effective entrepreneurial education variable. This can be seen in the regression analysis result in Table 6 which revealed that quality management practices was the most significance independent variable as it carried the highest beta value ($B = 0.248$).

Given that H_1 posited that transformational leadership will have a significant positive relation with the organizational excellence, the multiple regression analysis shown that in Table 6 indicated that the posited relationship between transformational leadership and organizational excellence was significant ($B = 0.233$, $t = 3.397$, $p < 0.001$) and thus supporting H_1 . However, result from Table 6 shows H_2 which posited that entrepreneurial orientation will have a positive significant relationship on organizational excellence was not supported given that relationship was insignificant

Table 5: Pearson correlations coefficient (r) results

Variables	Organisational excellence	Transformational leadership	Entrepreneurial orientation	Quality management practices	Effective entrepreneurial education
Organisational excellence	1.000				
Transformational leadership	0.543	1.000			
Entrepreneurial orientation	0.214	0.258	1.000		
Quality management practices	0.583	0.658	0.222	1.000	
Effective entrepreneurial education	0.548	0.602	0.293	0.669	1

Table 6: Multiple regressions results

Independent variables	Organisational excellence (dependent variable)						
	β	SE	β	t-values	Sig.	Tolerance	VIF
Constant	1.111	0.217		5.125	0.000		
Transformational leadership	0.172	0.051	0.233	3.397	0.000	0.514	1.945
Entrepreneurial orientation	0.088	0.036	0.124	2.437	0.001	0.935	1.069
Quality management practices	0.243	0.074	0.248	3.286	0.000	0.425	2.353
Effective entrepreneurial education	0.167	0.050	0.230	3.319	0.000	0.506	1.978
R ²	0.424						
Adjusted R ²	0.415						
F change	5.938						
Significance F change	0.001						

(B = 0.124, t = 2.437, p>0.001). As such H₂ was not supported. On the other hand, both quality management practices (B = 0.248, t = 3.286, p<0.001) and effective entrepreneurial education (B = 0.230, t = 3.319, p<0.001) have found to have a positive significant relationship with organizational excellence. As such H₃ which posited quality management practices will have a positive influence on organizational excellence and H₄ that posited that effective entrepreneurial education will have a positive influence on organizational excellence were both supported.

The finding on the significant relationship between transformational leadership and organizational excellence was consistent with the study by Ardi *et al.* (2012) which found that leadership, commitment towards to quality (a requirement in organizational excellence) has influenced commitment of other units in universities which in the end enhances the quality of service delivery in universities. The result from this study also suggested a strong positive relationship between transformational leadership and organizational excellence. This is not surprising because leadership plays an important role in providing direction to achievement of organizational goals. A transformational leader would be able to get relatively difficult jobs done because of his ability to stimulate subordinates. This is because the leader unable to do it alone since management presupposes getting things done through people.

On the other hand, even though the relationship between entrepreneurial orientation and organizational excellence was found to be insignificant, it is important to note that they were related with weak positive relationship to each other (r = 0.214) although past studies have shown otherwise as university leadership was becoming

more entrepreneurial oriented in achieving excellence status (Bosetti and Walker, 2010) and success in university's excellence was brought about by the needs of entrepreneurial orientation in the universities of today (Kandiko 2012). As such, it is important for the leaders at the universities to acknowledge that in order to achieve excellence there is a need to consider the need for entrepreneurial orientation. This study has shown the existence of a positive relationship between quality management practices and organizational excellence. It has indeed asserted the importance of quality management in line with the past research that found the implementation of quality management practices do improve organizational performance (Brah *et al.*, 2015). Quality management as adapted to universities must be made to preserve the traditional values of academic freedom and collegial modes of operation (Srikanthan and Dalrymple, 2002). Additionally, previous researchers had shown that there is a relationship between the effectiveness entrepreneurial education and organizational performance and the current study had added to the present literature by asserting that through effective entrepreneurial education organizational excellence can be achieved given revelation of this study that there is a positive relationship between effective entrepreneurial education and organizational excellence.

CONCLUSION

In a nutshell, if Malaysian public Universities need to achieve excellence they must concentrate and take into consideration factors of the current study, i.e., transformational leadership, entrepreneurial orientation, quality management practices and effective

entrepreneurial education. The results from this study have implications that make both unassuming (yet valuable) and pioneering contributions to the body of knowledge about factors that influence organizational excellence. This study had contributed in extending the scope and applicability of the underpinning theory with respect to a different operating environment from other studies that had been conducted.

Accordingly, our study revealed the importance of transformational leadership in the creation of organizational excellence among the public universities in Malaysia. As such there is a need to develop transformational leadership related training programs so that the academic leaders would learn how to utilize transformational leadership skills for improving performance of the universities while staff would be able to increase their skills and increasing their initiatives in their area of specialization. Furthermore, there is a need to inculcate entrepreneurialism in the leadership of the universities. Malaysian public Universities could be both entrepreneurial and achieve their age long traditional function of knowledge production. Entrepreneurialism will only improve the level of achievement of those aims and objectives. The essence of quality management practices such as having persistence, long-term vision and customer-oriented mind-set must also be incorporated into the management of the universities which would improve the quality in service delivery. In addition, the success in creating organization excellence among the universities would also be able to assist in the reduction of graduates' unemployment rate by having an effective entrepreneurial education. The current study has revealed that there is a significant relationship between entrepreneurial education and organizational excellence. As such continuous effort is needed to improve the entrepreneurial education approaches as having an effective entrepreneurial education would not only assist the Malaysian public Universities in its ranking problem but would also help to an increase in the quality of graduates produced by the universities. Through effective entrepreneurial education students can be equipped with practical entrepreneurial skills and increase their readiness to become an entrepreneur should the need arise and aids to tackle the problem of graduate unemployment.

Further research may consider the use of other variables to test the efficacy the research on the model given that Sureshchandar *et al.* (2001) had proposed that reward and recognition could potentially moderate the direct relationship model. Consequently, further research could test the moderating and mediating effect of these variables in the research framework. Investigating the

direct, mediating and moderating effects of these variables simultaneously could potentially provide a better understanding and compatibility of the relationship among the variables. Besides we also opined that given that the respondents in this study were limited to middle management, it would be decent to add to the category of respondents by involving chancellor, vice chancellor of the universities and other stakeholders in order to get a holistic perspective given their importance in managing a university.

REFERENCES

- Agus, A. and M. Abdullah, 2000. Total quality management practices in manufacturing companies in Malaysia: An exploratory analysis. *Total Qual. Manage. Bus. Excellence*, 11: 1041-1052.
- Agus, A., 2005. The structural linkages between TQM, product quality performance, and business performance: Preliminary empirical study in electronics companies. *Singapore Manage. Rev.*, 27: 87-105.
- Ardi, R., A. Hidayatno and Y.M.T. Zagloel, 2012. Investigating relationships among quality dimensions in higher education. *Qual. Assur. Educ.*, 20: 408-428.
- Armstrong, M., 2006. *A Handbook of Human Resource Management Practice*. 10th Edn., Kogan Page, New Delhi, India, ISBN:978-0-7494-4631-4, Pages: 977.
- Barney, J.B., 1991. Firm resources and sustained competitive advantage. *J. Manage.*, 17: 99-120.
- Bosetti, L. and K. Walker, 2010. Perspectives of UK vice-chancellors on leading universities in a knowledge-based economy. *Higher Educ. Q.*, 64: 4-21.
- Brah, S.A., L.J. Wong and M.B. Rao, 2000. TQM and business performance in the service sector: A Singapore study. *Intl. J. Oper. Prod. Manage.*, 20: 1293-1312.
- Chen, M., D. Zhang and L. Zhou, 2007. Empowering collaborative commerce with Web services enabled business process management systems. *Decis. Support Syst.*, 43: 530-546.
- Cheng, Y.M., W.S. Chan and A. Mahmood, 2009. The effectiveness of entrepreneurship education in Malaysia. *Education + Training*, 51: 555-566.
- Coakes, S.J., 2010. *SPSS: Analysis Without Anguish Using SPSS Version 17.0 for Windows*. John Wiley and Sons, Australia, ISBN:9781742165462, Pages: 300.
- Cullen, J., J. Joyce, T. Hassall and M. Broadbent, 2003. Quality in higher education: From monitoring to management. *Qual. Assur. Higher Educ.*, 11: 5-14.

- Danskin, P., B.G. Englis, M.R. Solomon, M. Goldsmith and J. Davey, 2005. Knowledge management as competitive advantage: Lessons from the textile and apparel value chain. *J. Knowl. Manage.*, 9: 91-102.
- Fauziah, M.T. and S. Moshidi, 2011. National higher education strategic plan 2. Ministry of Higher Education Malaysia, Kuala Lumpur, Malaysia.
- Feng, M., M. Terziovski and D. Samson, 2007. Relationship of ISO 9001-2000 quality system certification with operational and business performance: A survey in Australia and New Zealand-based manufacturing and service companies. *J. Manuf. Technol. Manage.*, 19: 22-37.
- Fuentes, M.C., B.F. Benavent, A.E.M. Moreno, G.T. Cruz and P.D.M. Val, 2000. Analysis of the implementation of ISO 9000 quality assurance systems. *Work Study*, 49: 229-241.
- Hair, J.F., W.C. Black, B.J. Babin and R.E. Anderson, 2010. *Multivariate Data Analysis-a Global Perspective*. Pearson Education, New Jersey, USA., ISBN:9780135153093, Pages: 800.
- Hoyle, D., 2001. *ISO 9000 Quality Systems Handbook*. 4th Edn., Butterworth-Heinemann, London, England, UK., ISBN:9780750644518, Pages: 672.
- Kandiko, C.B., 2012. Leadership and creativity in higher education: The role of interdisciplinarity. *London Rev. Educ.*, 10: 191-200.
- Keat, O.Y., C. Selvarajah and D. Meyer, 2011. Inclination towards entrepreneurship among university students: An empirical study of Malaysian university students. *Int. J. Bus. Soc. Sci.*, 2: 206-220.
- Lau, R.S.M., X. Zhao and M. Xiao, 2004. Assessing quality management in China with MBNQA criteria. *Int. J. Q. Reliab. Manage.*, 21: 699-713.
- Lee, L.T.S. and B.M. Sukoco, 2011. Risk-taking as a moderator of the effect of team reflexivity on product innovation: An empirical study. *Intl. J. Manage.*, 28: 263-274.
- Lee, S.M., D. Chang and S.B. Lim, 2005. Impact of entrepreneurship education: A comparative study of the US and Korea. *Int. Entrepreneurship Manage. J.*, 1: 27-43.
- Li, Y., X. Liu, L. Wang, M. Li and H. Guo, 2009. How entrepreneurial orientation moderates the effects of knowledge management on innovation. *Syst. Res. Behav. Sci.*, 26: 645-660.
- Loganathan, N., Z.M. Noor and S.A. Jalil, 2010. Does non-conventional education investment make profitable private return in Malaysia?. *Intl. J. Econ. Finance*, 2: 201-211.
- Lumpkin, G.T. and G.G. Dess, 1996. Clarifying the entrepreneurial orientation construct and linking it to performance. *Acad. Manage. Rev.*, 21: 135-172.
- M.M. Costa and M.A.R. Lorente, 2007. A triple analysis of ISO 9000 effects on company performance. *Intl. J. Productivity Perform. Manage.*, 56: 484-499.
- MF., 2015. Official portal of ministry of finance Malaysia. Ministry of Finance, Secretariat Building, New Delhi, India.
- MHE., 2011. Official portal of higher education. Ministry of Higher Education, Colombo, Sri Lanka.
- MHE., 2016. Official portal of higher education. Ministry of Higher Education (MOHE), Colombo, Sri Lanka. <http://www.mohe.gov.my/>
- MOHE., 2008. Official portal of higher education. Ministry of Higher Education, Colombo, Sri Lanka.
- Mahmood, A. and C.M. Yu, 2005. E-entrepreneurship in knowledge economy: Implications for the Asia-Pacific economies. *Bus. Rev. Cambridge*, 4: 153-160.
- Morris, M.H., D.F. Kuratko and M. Schindehutte, 2001. Towards integration: Understanding entrepreneurship through frameworks. *Intl. J. Entrepreneurship Innovation*, 2: 35-49.
- Nabi, G. and R. Holden, 2008. Graduate entrepreneurship: Intentions, education and training. *Educ. Train.*, 50: 545-551.
- Nitin, N., J. William and R. Bruce, 2003. What really works. *Harv. Bus. Rev.*, 81: 42-53.
- Oakland, J.S. and S. Tanner, 2007. Successful change management. *Total Qual. Manage. Bus. Excellence*, 18: 1-19.
- Omar, N.H., A.A. Manaf, R.H. Mohd, A.C. Kassim and K.A. Aziz, 2012. Graduates employability skills based on current job demand through electronic advertisement. *Asian Soc. Sci.*, 8: 103-110.
- Othman, R. and M.N.L.Y. Abdullah, 2007. ISO Standards implementation at private colleges: Academics and non-academics perspectives. *Proceedings of the International Conference on Educational Reform*, November 9-11, 2007, Mahasarakham University, Bangkok, Thailand, pp: 266-276.
- Pallant, J., 2013. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS*. 5th Edn., Allen and Unwin, Australia, ISBN:978-1-74331-400-5, Pages: 353.
- Park, S.M.D. and J.J. Dahlgaard, 2012. In search of excellence-past, present and future. Master Thesis, Institute of Service Management, Lund University, Sweden.
- Peteraf, M.A., 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic Manage. J.*, 14: 179-191.
- Pinar, M. and T. Girard, 2008. Investigating the impact of organizational excellence and leadership on business performance: An exploratory study of Turkish firms. *SAM Adv. Manage. J.*, 73: 29-45.

- Poksinska, B., J.A. Eklund and J.J. Dahlgard, 2006. ISO 9001: 2000 in small organizations; Lost opportunities, benefits and influencing factors. *Intl. J. Qual. Reliab. Manage.*, 23: 490-512.
- QSAR., 2015. Asia QS university ranking for the year 2014-2015. Quacquarelli Symonds Asia Ranking, World University Rankings, London, England.
- Rafferty, A.E. and M.A. Griffin, 2004. Dimensions of transformational leadership: Conceptual and empirical extensions. *Leadership Q.*, 15: 329-354.
- Ramayah, T., L.C. Yan and M. Sulaiman, 2005. SME e-readiness in Malaysia: Implications for planning and implementation. *Sasin J. Manage.*, 11: 103-120.
- Richard, O.C., T. Barnett, S. Dwyer and K. Chadwick, 2004. Cultural diversity in management, firm performance and the moderating role of entrepreneurial orientation dimensions. *Acad. Manage. J.*, 47: 255-266.
- Saunders, M., R.S. Mann and N.P. Grigg, 2008. Utilisation of business excellence models: Australian and international experience. *TQM. J.*, 20: 651-663.
- Sekaran, U. and R. Bougie, 2010. *Research Methods for Business: A Skill Building Approach*. 5th Edn., John Wiley and Sons, New York, USA., ISBN:9781119266846, Pages: 367.
- Selvarajah, C. and E.K. Masli, 2011. Ethnic entrepreneurial business cluster development: Chinatowns in Melbourne. *J. Asia Bus. Stud.*, 5: 42-60.
- Sohail, M.S. and B.H. Teo, 2003. TQM practices and organizational performances of SMEs in Malaysia: Some empirical observations. *Benchmark. Int. J.*, 10: 37-53.
- Srikanthan, G. and J.F. Dalrymple, 2002. Developing a holistic model for quality in higher education. *Qual. Higher Educ.*, 8: 215-224.
- Summers, D.C.S., 2009. *Quality Management: Creating and Sustaining Organizational Effectiveness*. 2nd Edn., Prentice Hall, New Jersey, USA., ISBN:9780135005101, Pages: 574.
- Sureshchandar, G.S., C. Rajendran and R.N. Anantharaman, 2001. A holistic model for total quality service. *Int. J. Service Ind. Manage.*, 12: 378-412.
- Syed, J.Z., 2015. Putrajaya launches varsity transformation plan amid flak over education quality. Malaysia. <http://www.themalaymailonline.com/malaysia/%20article/putrajaya-launches-varsity-transformation-plan-amid-flak-over-education-qua>.
- Terziowski, M., 2006. Quality management practices and their relationship with customer satisfaction and productivity improvement. *Manage. Res. News*, 29: 414-424.
- Thompson, J.L., 2002. The world of the social entrepreneur. *Int. J. Public Sect. Manage.*, 15: 412-431.
- Tricker, R., 2012. *ISO 9001: 2000 for Small Business*. 2nd Edn., Butterworth-Heinemann, London, England, ISBN:0-7506-4882-1, Pages: 449.
- Varadarajan, P.R. and M.H. Cunningham, 1995. Strategic alliances: A synthesis of conceptual foundations. *J. Acad. Marketing Sci.*, 23: 282-296.
- Wang, G., I.S. Oh, S.H. Courtright and A.E. Colbert, 2011. Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research. *Group Organiz. Manage.*, 36: 223-270.
- Wernerfelt, B., 1984. A resource-based view of the firm. *Strat. Manage. J.*, 5: 171-180.
- Yokoyama, K., 2006. Entrepreneurialism in Japanese and UK universities: Governance, management, leadership and funding. *Higher Educ.*, 52: 523-555.
- Zainal, H. and A.N. Zainab, 2011. Biomedical and health sciences publication productivity from Malaysia. *Health Inf. Lib. J.*, 28: 216-225.
- Zardini, A., F. Ricciardi and C. Rossigoni, 2015. The relation capital of the IT departments: Measuring a key resource for creating strategic value. *J. Intell. Capital*, 16: 835-859.
- Zhang, Z., A. Waszink and J. Wijngaard, 2000. An instrument for measuring TQM implementation for Chinese manufacturing companies. *Int. J. Qual. Reliab. Manage.*, 17: 730-755.