

# **MANAGEMENT & ACCOUNTING REVIEW**

Volume 18 No. 3  
December 2019

## CONTENTS

- 1 Students' Perceptions and Learning Approaches in Accounting: The Role of Mobile Apps Technology  
*Marziana Madah Marzuki, Wan Zurina Nik Abdul Majid, Roslina Salwani, Mohd Zafian Mohd Zawawi and Hatinah Abu Bakar*
- 31 Revisiting the Factors Influencing Corporate Dividend Policy Decisions: Evidence from Listed Banks in Ghana  
*Ibrahim Nandom Yakubu*
- 51 The Influence of Board Gender Diversity on Financial Performance of Listed Companies in Nigeria  
*Armaya'u Alhaji Sani, Ibrahim Adamu Abubakar, Umar Aliyu and Saftyanu Sule*
- 69 Readiness to Implement Revenue Diversification Strategies by Malaysian Public Universities  
*Suhaiza Ismail, Nik Nazli Nik Ahmad and Siti Alawiah Siraj*
- 95 Prospect for Accounting Academics: Examining the Effect of Undergraduate Students' Career Decision  
*Ahmad Bukola Uthman, Mubaraq Sanni and Abdulai Agbaje Salami*
- 131 The Influence of Accounting Information Disclosure on Foreign Direct Investment in Nigerian Listed Companies  
*Oyerogba Ezekiel Oluwagbemiga*
- 169 Benefits of Switching from Activity-Based Costing to Resource Consumption Accounting: Evidence from a Power Generator Manufacturing Plant  
*Suaad Jassem*
- 191 Streamlining Mobile Banking into Loan Repayment System for Microfinance Institutions  
*Affa Malina Amran, Intan Salwani Mohamed, Sharifah Norzehan Syed Yusuf and Nabilah Rozzani*

# Readiness to Implement Revenue Diversification Strategies by Malaysian Public Universities

Suhaiza Ismail, Nik Nazli Nik Ahmad and Siti Alawiah Siraj  
Department of Accounting, Kullliyyah of Economics  
and Management Sciences International Islamic University Malaysia

## ABSTRACT

*The objective of this paper is to investigate the factors affecting the readiness (in terms of change commitment and change efficacy) of the public universities in Malaysia to implement revenue diversification strategies. Based on the Weiner's (2009) Theory of Organisational Readiness for Change, this study used a questionnaire survey to collect data from senior administrators in public universities in Malaysia. A total of 69 completed questionnaires were received. Multiple regression and correlation analyses were used to examine the factors affecting readiness to implement revenue diversification strategies. The results reveal that change valence positively influences change commitment and change efficacy. In addition, task knowledge and resource availability have a significant positive impact on change efficacy and change commitment respectively. This is among the first studies to provide empirical evidence on factors influencing the readiness of universities to adopt revenue diversification strategies to attain financial sustainability, using the Organisational Readiness for Change Theory.*

**Keywords:** *Readiness, Revenue Diversification, Financial Sustainability, Public Universities, Malaysia*

---

## ARTICLE INFO

### Article History:

*Received: 2 January 2019*

*Accepted: 26 April 2019*

*Available online: 27 December 2019*

## INTRODUCTION

Globally, the public higher education landscape has been affected by a number of significant events including substantial budgetary cuts due to economic downturn, spiralling operating costs, significant increases in enrolment and, consequently, pressures for public sector reforms under the agenda of New Public Management (NPM) (Adams, 2014; Johnstone, 2013; Johnstone & Marcucci, 2007; Mangeol, 2014; Mitchell, Leachman and Masterson, 2016). Similar trends have been observed across developed and developing countries, suggesting that public universities around the world now operate in a highly “turbulent environment”, experience a “sea change” and are undergoing a “fundamental transformation” compared to thirty years ago (Ernst and Young, 2012, p.4; KPMG, 2002, p.1, Parker, 2002, p. 603). These changes in the external environment have exerted tremendous pressure on universities to embrace change and transform their governance structures and processes to be more flexible and responsive. Public universities are now struggling with the major task of implementing and managing change as they continue to be subjected to various reform measures which range from decentralisation and budgetary constraints to managerialism and revenue diversification (Decramer et al., 2012; Smeenk et al., 2009).

Due to the financial challenges faced by European countries, over 80% of the higher education institutions in Europe have been actively engaged with income diversification activities for some time (Estermann, 2009; Teixeira and Koryakina, 2013). Furthermore, the staff in European higher education institutions are reported to have greater commitment towards diversification of revenue due to appropriate internal institutional mechanisms such as training programmes to equip staff with the necessary skills and development (Shattock, 2008).

A similar development is emerging in the Malaysian public higher education landscape. Substantial budget cuts were made to the public universities’ operating and developmental expenditure budgets beginning from 2015 and the budget allocation reached a six-year low in 2017 after which, there have been some increases (Malay Mail online, Oct 27, 2017). Despite this slightly favourable trend in terms of budget allocation for public universities recently, it is expected that Malaysian public universities, too

will explore revenue diversification strategies more aggressively, similar to their counterparts in the other parts of the world, given the current general trend of reduced public funding in the higher education landscape (Deloitte, 2015).

Motivated by the revenue diversification agenda, the present study aimed to examine the readiness of Malaysian public universities to implement revenue diversification initiatives as part of their move to be less dependent on government funding. Using Weiner's Organisational Readiness Theory for Change, readiness was measured in terms of change commitment and change efficacy, and the three determinants of readiness are change valence, task knowledge and resource availability (Weiner, 2009).

This study makes several important contributions. Firstly, the study examines the less-explored context of Malaysia which may add valuable insights into the readiness of public universities to embrace revenue diversification as most prior work on the area has been limited to the developed country contexts such as the U.S., U.K., Europe and Australia (Estermann, 2009; Karp, 2017; Mitchell et al, 2016; Shattock, 2008; and Teixeira and Koryakina, 2013). The higher education landscape in developing countries may have some differences from that of developed countries and thus provide useful insights into this important issue. Secondly, to the best knowledge of the researcher, it is among the first studies to explore the readiness of Malaysian universities to implement revenue diversification strategies in the current climate of reduced government spending, and it does so using Weiner's Organisational Change Theory, which has yet to be empirically tested in the context of the education sector. The findings of the study provide useful information to the relevant authorities particularly the Ministry of Higher Education and the top management of the public universities in their effort to implement the universities' revenue diversification strategies to achieve financial sustainability. Finally, the present study adds to the paucity of literature which specifically focuses on organisational readiness for revenue diversification, an increasingly common phenomenon in the changing public higher education environment. Prior studies on revenue diversification in higher education have been limited to descriptive surveys of perceptions on revenue diversification or conceptual papers on revenue diversification strategies and related policies (See for example, Ahmad, 2015; Beath et al., 2000; Estermann and Bennetot-Pruvot,

2011; Johnstone, 2013; Teixeira and Koryakina, 2013; Van Hoorebeek and Marson, 2005). These studies have not specifically examined the readiness of the public universities to embrace revenue diversification.

The remainder of this paper is organised as follows. The next section describes the Malaysian higher education landscape to provide the background to the present study. The subsequent section presents the literature on the topic and the development of hypotheses. This section consists of the previous studies conducted discussing related topics which are of significance to this study. The research methodology section describes the methods and a detailed explanation of the sample, data collection, and models that will be tested to obtain the required results. The subsequent section presents the findings from the study and discussion. The last section concludes the paper.

## **Background: The Malaysian Higher Education Landscape**

Over the past few years, Malaysian public universities have also faced similar challenges of financial austerity as their European, American and other counterparts in terms of severe reduction in the government funding for public universities (Deloitte, 2015; Estermann & Bennetot-Privot, 2011; Malay Mail online, November 2, 2014). In the Malaysian Budget for 2017, the allocation for higher education was further reduced by a total of RM 1.46 billion, amounting to a cut of 19.23% from the budget allocation for 2016 (Hunter, 2016). This, together with the launch of the Malaysian Higher Education Blueprint in 2015 and the University Transformation Programme Purple Book in 2016, made it mandatory for Malaysian public universities to plan for covering 30% of their operating expenses by the year 2020 (Ministry of Higher Education Malaysia, 2015; 2016). The financial sustainability agenda has made it necessary for public universities in Malaysia to move towards being more entrepreneurial in their mission, where revenue diversification becomes a priority. Revenue diversification simply means that universities have to find alternative means of funding to supplement dwindling government funding (Teixeira & Koryakina, 2013; Masaiti et al., 2016). The Purple Book outlines seven potential sources of income for public universities: (1) *academic and research programmes*, (2) *asset monetisation, retailing and services*, (3) *financial management activities and investment*, (4) *corporate alliances for business ventures*, (5)

*endowment, (6) waqf or religious endowment, and (7) fundraising* (Ministry of Higher Education Malaysia, 2016, p. 9).

After decades of relying primarily on government funding, it is important to ascertain the readiness of the public universities in Malaysia to execute the financial sustainability agenda specifically via implementation of revenue diversification strategies. This is in line with Weiner's (2009) Theory of Organisational Readiness, which posits that the successful implementation of any policy is dependent on the extent to which an organisation's members are psychologically and behaviourally prepared to implement any new policy. In light of the issue of financial sustainability agenda, using Weiner's theory, the current study aimed to investigate the factors affecting readiness of the public universities in Malaysia to implement revenue diversification strategies.

## **LITERATURE REVIEW, THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT**

### **Financial Sustainability of Higher Education Institutions**

Prior studies on financial sustainability of higher education have focused on various aspects including cost management strategies (Chopp et al., 2015; Datta & Datta, 2015; Timiryasova et al., 2015), revenue diversification initiatives (Van Hoorebeek & Marson, 2005; Ahmad, 2015; Feleke, 2016), and challenges and obstacles in achieving financial sustainability (Agostino et al., 2016; Dumestre, 2016; Teer-Tomaselli, 2016). As the present study focusses on the readiness of the Malaysian public universities to implement revenue diversification strategies, the following sub-section focusses on previous studies addressing financial sustainability from the point view of universities dealing with revenue diversification.

### **Revenue Diversification at Higher Education Institutions**

Prior studies are in agreement that the global reduction of government funding of education is the main reason why universities must develop and adopt innovative strategies to find alternative revenue sources (El Amoud & O'Tuoma, 2014; Estermann & Bennetot-Privot, 2011; Mandanici & Pace, 2015; Hunter, 2016; Ryan & Ogilvie, 2011; Webb, 2015).

Several prior studies focus specifically on the potential sources or strategies for revenue diversification. Oliver et al. (2013) puts forward several strategies for income generation at a university, such as enhancement of research output and productivity, increase in the enrollment numbers of students both local and internationally, and knowledge acquisition from partnering in research and innovation. Research contribution as one of the strategies to diversify revenue collection is advocated in the works of Ahmad (2015) and Beath et al. (2000).

Ahmad (2015) highlights two main points: (1) the main income generation activities originate from research and consultancy and (2) the income generated by academic staff is of the utmost importance to the development and sustainability of a university. Likewise, Beath et al. (2000) note that the productivity of researchers in both fundamental and applied research is among the optimal incentives for income generation within universities. Van Hoorebeek and Marson (2005) in their study propose that teaching and technology transfer could be the alternatives for the universities to generate revenue; these two are considered the two most important streams available to a university.

Other revenue diversification strategies suggested by prior researchers include engaging in entrepreneurial activities such as providing private programmes for non-traditional clients (Okello-Obura & Kigongon-Bukenya, 2008), providing virtual and long-distance courses (Salmi, 2009), commercialising faculty research in order to provide valuable products and services to the public (Yusuf, 2010; Uy et al., 2014), engaging in more collaboration with industry (Yusuf, 2010; Afriye, 2015), enhancing contact with the alumni as a fund-raising strategy (Yusuf, 2010), and raising the cost of tuition (Mohadeb, 2003; Yusuf, 2010; Higher Education Commission, 2014; Uy et al., 2014). Rozmus (2012) divides recommendations for diversification of a university's income into four sources: i) integrate income diversification into the institution's strategy, ii) invest in people, iii) incentivize faculties and staff to take an active part in the income diversification, and iv) set up professional stakeholder management.

However, implementation of revenue diversification strategies is not without challenges and obstacles as past studies have reported. The most important obstacle identified was a lack of commitment by administrators

towards embracing these initiatives. This is because policy initiatives can be successful only if those tasked with instituting them truly believe in their value (Chen et al., 2007; Rusinko, 2010; Schimdt & Gunther, 2016). Other obstacles include legal restrictions on strategies which universities can adopt (Teixeira & Koryakina, 2013; Rohayati et al., 2016), a lack of infrastructure and expertise (Aliyeva, 2016; Feleke, 2016), and political instability and influences (Emira, 2014; Nuninger & Chatelet, 2016). Moreover, for revenue diversification strategies to be successfully implemented it is crucial that the universities believe in their viability and are convinced that their institutions possess the resources and capabilities needed to adopt these strategies (Johnson & Hirt, 2011; Richards, 2012; Naidoo & Wu, 2014). In other words, universities, need to be ready for change and this is only possible when the university staff are collectively committed to change and possess the capacity to effect that change (Weiner, 2009; Weiner et al., 2008).

Despite these various prior studies addressing revenue diversification strategies for higher education institutions in response to the recent trend of reduction of government funding, there is a lack of empirical evidence on factors influencing the readiness of the universities to successfully implement revenue diversification strategies. This is because prior studies merely explore different types of revenue diversification strategies or the various challenges and obstacles for revenue diversification but do not empirically examine universities' readiness for change implementation. This study addresses this important issue using Weiner's (2009) Theory of Organisational Readiness for Change by investigating the factors affecting the readiness of Malaysian public universities to implement revenue diversification strategies in order to become financially sustainable. The following sub-section describes the theoretical framework of the study and presents the hypotheses.

### **Theory of Organisational Readiness for Change and Hypotheses**

Organisational readiness refers to "the extent to which organisational members are psychologically and behaviorally prepared to implement organisational change" (Weiner, 2008, 2009). When organisational readiness is high, members are more likely to initiate change, exert greater effort, exhibit greater persistence, and display more cooperative behavior, which

overall results in more effective implementation of the proposed change (Weiner, 2009). Conversely, when organisational readiness is low, members are more resistant to changes, do not cooperate well, and as a result the new implementation of a policy is less effective than it should be. The Theory of Organisational Readiness for Change posits that readiness comprises two components: change commitment and change efficacy (Weiner, 2009). Change commitment refers to the organisation members' obligation to accept the change, whilst change efficacy is defined as a 'comprehensive summary or judgment of perceived capability to perform a new task (i.e. the change)'. In other words, change efficacy relates to the level of capability of organisational members to implement the change. Higher change efficacy means that the organisation is more capable of implementing the change which implies a greater readiness for change (Weiner, 2009).

In predicting organisational readiness (in terms of change commitment and change efficacy), three factors are proposed: change valence, task knowledge, and task availability. Change valence refers to the extent of the values perceived by the organisational members towards the changes. The more the organisation members value the change (i.e. greater change valence), the more likely they will support, engage and accept the change and hence will be more ready to implement the change. Task knowledge, on the other hand, refers to the knowledge required by the organisational members to realise the changes. It is understood that the members should have sufficient and relevant knowledge related to the changes in order for them to embrace the implementation of the revenue diversification with adequate information. Thus, the extent to which senior university officers possess the requisite skills and expertise in supporting an entrepreneurial mission will help make the change towards revenue diversification possible. Task availability is about availability of resources in the organisation to support the change (Weiner, 2009). Among the resources are human capital and financial and physical resources. The ability of the three factors (change valence, task knowledge, and resource availability) to explain an organisation's readiness for change have found empirical support in healthcare organisations (Shea et al., 2014; Dasari et al., 2016), business organisations (Ter Chian, 2010; Elgamal, 2012), and government bureaucracies (Yusof & Abdul Aziz, 2015).

In the context of the present study, change valence refers to the shared values that senior university administrators place on revenue diversification strategies as a means of achieving financial sustainability. A higher change valence indicates that pursuing a revenue diversification agenda is highly valued by the senior officers. This is perhaps because they see the feasibility to undertake the revenue diversification strategies in public universities based on the experience of other countries such as the European countries which have long engaged with such activities. Thus, it is expected that when they value the revenue diversification agenda, they are more committed (i.e. change commitment) towards revenue generating activities.

Moreover, it is also expected that change valence will influence the change efficacy of the organisation members (the capability to work on revenue diversification strategies). This is because when members value the revenue diversification agenda, they will not be resistant to change, hence, the members of the organisation will be motivated to furnish themselves with necessary skills and development to carry out revenue diversification strategies which ultimately enhances their capability to work for revenue generation strategies effectively. Prior studies have found empirical support for this supposition (Nordin, 2012; Yusof & Aziz, 2015; Dasari et al., 2016). Nordin (2012) found that the value faculty members of a Malaysian university (UiTM) placed on a change initiative influenced the university's readiness to implement change. In another Malaysian study, Yusof and Aziz (2015) found that change valence influenced the readiness of a public service organisation to adopt a new information systems initiative. Members of the organisation perceived that the initiative would make their work easier, and thus were quite ready to implement the initiative. Dasari et al. (2016) discovered that a low-level change valence amongst members of local hospitals in developing countries regarding an impending information systems initiative negatively influenced the readiness of these hospitals to successfully implement the change. Based on the theory and the empirical support of prior studies on the ability of change valence to influence organisational readiness for change, this study proposes the following hypotheses:

- H<sub>1a</sub>: There is a positive relationship between change valence and change commitment.
- H<sub>1b</sub>: There is a positive relationship between change valence and change efficacy.

Task knowledge refers to the university administrators' knowledge about the specific revenue diversification strategies that need to be implemented. In line with Weiner's theory, a study by Turta (2011) on Finnish manufacturing companies with aspirations of introducing a services component to their businesses revealed that the business owners' task knowledge about the exact strategies to adopt influenced their readiness to adopt the expansion initiative. Similarly, Yusof & Aziz (2015) and Dasari et al. (2016) found that task knowledge influenced the readiness of a Malaysian public service organisation and hospitals in developing countries in adopting new information system initiatives. In the health sector, Rubenstein et al. (2014) found that the value that hospital leaders in America placed on a new initiative to improve depression care significantly influenced the readiness of these hospitals to implement the initiative. Based on Weiner's theory and findings of prior studies on the ability of task knowledge to influence organisational readiness for change, the present study proposes the following hypotheses:

- H<sub>2a</sub>: There is a positive relationship between task knowledge and change commitment.
- H<sub>2b</sub>: There is a positive relationship between task knowledge and change efficacy.

Resource availability in the context of the present study refers to the resources that the universities need to possess, including the necessary human, financial, material, and informational resources for successfully implementing the revenue diversification strategies. Aboudzadeh et al. (2014) found that resource availability influenced the readiness of an Iranian business organisation to deal with crises. Similarly, Yusof and Aziz (2015) and Dasari et al. (2016) found that resource availability influenced the readiness of a Malaysian public service organisation and hospitals in developing countries in implementing new information systems for increased efficiency. Therefore, the following hypotheses are proposed:

- H<sub>3a</sub>: There is a positive relationship between resource availability and change commitment.
- H<sub>3b</sub>: There is a positive relationship between resource availability and change efficacy.

## RESEARCH METHODOLOGY

### Sample

The target respondents of this study consisted of three categories: bursars, deans, and selected senior accounting officers at all 20 public universities in Malaysia. A total of 275 questionnaires were distributed. The questionnaires were posted to all the targeted respondents together with return envelopes. After a fortnight, phone calls were made to confirm that the respondents had the questionnaires and they were politely reminded to fill them. Each respondent received a questionnaire and cover letter explaining the purpose of the research and assuring the confidentiality of the responses. A second follow up was conducted three months later by sending e-mails to the respondents. Some of the respondents responded positively and immediately submitted the completed questionnaires through e-mails and post. After two rounds of follow up, the total responses received were 69 representing 24.7 per cent from the total questionnaires distributed.

### Research Instrument

In undertaking this study, a survey developed by Shea et al. (2014) based on Weiner's Organisational Readiness for Change theory was adapted. Several modifications were made to suit the context and respondents of the current study, and a pilot study was also conducted. The finalized questionnaire consisted of two main sections. Section A contained demographic information on the respondents, including their current position, length of related work experience, category of institution, and availability of endowment and *waqf* funding at the respondents' institution.

Section B comprised of 17 items measuring the readiness to implement revenue diversification strategies in terms of change commitment and change efficacy and three factors influencing the readiness to change, that is, change valence, task knowledge and task availability. A six-point Likert scale was used, from 1 being "strongly disagree" to 6 being "strongly agree", whereby the respondents were required to rate their level of agreement with each item.

Readiness to implement revenue diversification in terms of "change commitment", was represented by three items: "*We are committed to*

*implement revenue diversification*’, “*We are motivated to implement revenue diversification*”, and “*We will do whatever it takes to implement revenue diversification*”. Likewise, readiness in relation to “change efficacy” was represented by three statements: “*We can support each other as we move to revenue diversification*”, “*We can coordinate tasks so that the implementation of revenue diversification goes smoothly*” and “*We can keep track of progress in implementing revenue diversification*”. Higher scores indicate a higher level of change commitment and change efficacy which ultimately means higher readiness to implement revenue diversification. The cronbach’s alphas for “change commitment” was 0.892 and for “change efficacy” was 0.841.

Five items measure the “change valence” factor: “*We believe it is necessary to implement revenue diversification*”, “*We believe the implementation of revenue diversification will be successful*”, “*We see the implementation of revenue diversification as timely*”, “*We feel that implementing revenue diversification is a good idea*”, and “*We value the implementation of revenue diversification*”. The mean score was computed based on the six-point Likert scale. The higher score for change valence reflects greater level of benefits from implementing revenue diversification. Cronbach’s alpha for change valence was 0.906.

Another factor, “task knowledge” was derived from two statement as follows “*We know the resources that are needed to implement the revenue diversification (e.g., information, expertise or financial)*”, and “*We know what each of us has to do to implement the revenue diversification*”. The higher score indicates a higher level of knowledge on revenue diversification. The cronbach’s alpha for task knowledge factor was 0.865. The last factor, “resources availability”, was measured based on four items; these are “*We have sufficient time to prepare for the revenue diversification implementation*”, “*We have the information we need to implement the revenue diversification*”, “*We have sufficient accounting personnel to implement the revenue diversification strategies*”, and “*We have enough fund to implement the revenue diversification strategies*”. The higher score reflects higher level of availability of related resources for implementing revenue diversification. Cronbach’s alpha for this factor was 0.853.

## Data Analysis

The data was analysed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics of frequency distributions and percentages were computed for the demographic profiles of the respondents. In addition, a descriptive analysis of mean score and standard deviation was computed for the Likert scale items. In testing the hypotheses both Pearson's zero correlation and multiple regression analyses were conducted. While correlation provides only an estimate of the association between variables, a regression analysis reveals the dependence of a variable on other explanatory variables. Thus, a regression provides more valid and reliable results. Two regression models were developed. Both models had the same independent variables of change valence, task knowledge, and task availability. The dependent variables representing the readiness for revenue generation were change commitment and change efficacy for Model 1 and 2 respectively. The models are presented below:

### Model 1

$$Y1 = \alpha_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4G + \epsilon$$

### Model 2

$$Y2 = \alpha_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4G + \epsilon$$

Where:

Y1 = Change Commitment

Y2 = Change Efficacy

$\alpha_0$  = intercept

$\beta$  = slope of regression line                       $\epsilon$  = is the error term (RV)

X = independent variables, which includes:

X1 = Change Valence

X2 = Task Knowledge

X3 = Task Availability

Before performing statistical analysis for hypotheses testing, an independent sample t-test was conducted to check any indication of non-response bias. The results indicated that there were no significant differences between the early group and late group of responses. Hence, there was no indication of response bias for data collected.

## FINDINGS AND DISCUSSION

### Demographic Information

Table 1 summarizes the demographic information of the respondents. As depicted in the Table, the majority of the respondents are academic administrators, making up 79.7 per cent of the total respondents. In this study, an academic administrator refers specifically to the deans and directors of faculties. 48.5 per cent of the respondents have served in the said capacity at their institutions for 1 to 5 years. The majority of the respondents work in comprehensive universities. While most respondents claimed that their universities have endowment funding, only 43.8 per cent claim to have *waqf* fund at their institutions.

**Table 1: Summary of Demographic Profile of Respondents**

Demographic Information	Frequency*	Percentage (%)
<b>Current Position:</b>		
Academic Administrator (Deans/Directors)	55	79.7
Bursar	4	5.8
Deputy Bursar	7	10.1
Others	3	4.3
<b>Years of Service in Current Position:</b>		
Less than one year	9	13.2
1 to 5 years	33	48.5
6-10 years	26	38.2
<b>University Category**:</b>		
Research University	16	23.9
Comprehensive University	32	47.8
Teaching University	19	28.4
<b>Endowment Funds:</b>		
Yes	59	86.8
No	9	13.2
<b>Waqf Funds:</b>		
Yes	28	43.8
No	36	56.3

\*\*Note: The public universities are classified into three categories: comprehensive (teaching oriented both arts and science), research (research oriented) and teaching (teaching oriented in specialized areas) universities (Ministry of Higher Education (MOHE), 2010).

Based on the background information, the respondents are well-versed in their capacity, be it as bursars or deans and thus their responses are deemed to be valid and appropriate for this study.

## Descriptive Statistics

Table 2 shows the mean scores and standard deviations for all variables. The mean scores for the variables ranged from 3.89 to 4.82, indicating that the respondents have a good perception of their readiness to implement revenue diversification strategies in terms of their commitment and capability in implementing them. The respondents also believe that the revenue diversification strategies, as well as the availability of adequate resources and knowledge to implement the strategies, will bring benefits to their institutions.

**Table 2: Means, Standard Deviation and Pearson’s Zero-order Correlations for all variables**

	Mean	SD	1	2	3	4	5
1 Change commitment	4.70	1.243	1				
2 Change efficacy	4.66	1.228	0.18	1			
3 Change valance	4.82	1.530	0.69***	0.58***	1		
4 Task knowledge	4.40	0.742	0.09	0.39**	0.22*	1	
5 Task availability	3.89	0.902	0.25*	0.11	0.04	0.27*	1

\*\*\*p < 0.001, \*\*p < 0.05, \*p < 0.1

## Results of Multiple Regression and Correlations

Table 2 and Table 3 present results of the Pearson’s Zero-order Correlation and the multiple regression for the two models, respectively. As shown in Table 3, change valance has a significant positive influence on both change commitment and change efficacy. Task availability has a significant positive influence on change commitment and task knowledge has a positive significant influence on change efficacy. Consistent results were revealed by the correlation analysis (Table 2). The results imply that readiness to implement revenue diversification strategies in terms of commitment is influenced by the perceived benefits of revenue diversification implementation as well as by the availability of sufficient resources. The results are consistent with Aboudzadeh et al. (2014), Yusof and Abdul Aziz (2015) and Dasari et al. (2016), who all found that change valance and resource availability influenced change commitment of an organisation. However, regarding the availability of task knowledge to

influence change commitment, the insignificant result of the present study contradicts the finding by Turta (2011) and Rubenstein et al. (2014), who found significant influence on task knowledge. Therefore, hypotheses 1a and 3a are supported.

Readiness in terms of the capability of the universities to implement revenue diversification strategies is significantly affected by the perceived benefits of revenue diversification implementation (i.e. change valance) and by sufficient knowledge on revenue diversification. Similar results were achieved for the Pearson’s Zero-order Correlation as reported in Table 2. The results support the findings by Nordin (2012), Aboudzadeh et al. (2014), and Yusof and Abdul Aziz (2015). Hence, hypotheses 1b and 2b are supported.

**Table 3: Results of Multiple Regressions**

<b>Variables</b>	<b>Standardised Coefficient Beta</b>	<b>t-value</b>	<b>Significance</b>
<b>Model 1 – Change commitment</b>			
Change Valence	0.490	3.944	0.000***
Task Knowledge	0.207	1.410	0.165
Task Availability	0.220	1.943	0.058*
R square = 0.633 Adjusted R square = 0.611 Sig. = 0.000			
<b>Model 2 – Change efficacy</b>			
Change Valence	0.402	3.198	0.002***
Task Knowledge	0.375	2.526	0.015**
Task Availability	0.111	.976	0.334
R square = 0.626 Adjusted R square = 0.604 Sig. = 0.000			

\*\*\*Significant at 1% level, \*\*Significant at 5% level, \*Significant at 10% level

## **IMPLICATIONS OF STUDY, LIMITATIONS AND SUGGESTION FOR FUTURE RESEARCH**

Based on the Organisational Readiness for Change Theory, the present study examined the influencing factors for readiness of the public universities in Malaysia to implement revenue diversification strategies. Readiness was measured in terms of change commitment and change efficacy. It was shown

in this study that change valence positively influences change commitment and change efficacy. In addition, task knowledge and resource availability have a positive impact on change efficacy and change commitment respectively. The findings of this study provide partial support for the Theory of Organisational Readiness for change in a higher education setting.

The current study has several implications. Firstly, it discovered that change valence or the belief in the value or benefits of revenue diversification is an important determinant influencing the readiness of the universities to implement such diversification. Accordingly, the relevant authorities, including the Ministry of Higher Education and the top management of the universities, need to make aggressive efforts to inform both academics and administrators of the universities of the importance of implementing revenue diversification strategies. Among the initiatives that can be carried out are conducting briefing, launching campaigns, and posting notices in order to raise awareness and encourage appreciation by university staff of the implementation of the revenue diversification strategies. It is also possible for the universities' top management and senior administrators to highlight the weaknesses of the current state of affairs whereby universities are limited in what they can achieve due to budgetary restrictions. They can then clearly communicate and portray an appealing vision of the future benefits staff will enjoy if revenue diversification strategies are successfully implemented, particularly regarding the financial freedom universities would possess.

Secondly, this study discovered that task knowledge influences readiness specifically in terms of capability of implementing. Thus, universities could usefully organize programmes such as workshops and training to provide information on possible revenue diversification strategies to be implemented. In this way, staff may be equipped with sufficient and relevant information and knowledge about revenue diversification, which ultimately will prepare them to embark on the various strategies.

Thirdly, as availability of the necessary resources is found to have a significant impact on readiness in relation to commitment towards revenue diversifications, relevant authorities such as the Ministry of Higher Education or the universities' top management may want to engage in brainstorming and synergistic sessions with relevant parties including

university administrators and academic staff on how to overcome resource constraints that might prevent the successful implementation of revenue diversification strategies.

The results of this study are expected to benefit both the government and the universities. For the government, it can guide the Ministry of Education on how to release the appropriate amount of budget for public universities, as well as enabling them to disseminate strategies which these universities can utilize to successfully diversify their revenue streams. Since change valence is positively significant, it indicates that university administrators are committed to move to revenue diversification, away from the previous system whereby the majority of the university budgets are from the government. When the university budgets are expected every year from the government, the members of the organisations may not have adequate initiatives to generate revenue on their own.

This study does have some limitations. Firstly, it makes use of questionnaires only, without other methods of research such as interviews of experts, and focus group discussions. Secondly, the output of this study may not be generalized to other countries because of the different economic and political conditions prevailing in those countries, and thus may not correctly describe their readiness to implement revenue diversification strategies. Thirdly, all respondents are from Malaysian public universities, and thus their responses are relevant only in the Malaysian context and may not apply to other countries. Future research might adopt other methods of data collection, such as interviews, in order to gain further insights into university administrators' perceptions regarding their institutions' readiness to adopt revenue diversification strategies. Similar studies in other countries would also add to this important line of inquiry.

## **CONCLUSION**

Despite its limitations, the present study contributes significantly to Weiner's (2009) Theory of Organisational Readiness for Change by providing empirical evidence to the newly developed theory. More importantly, it is among the pioneer studies that sheds light on the readiness of Malaysian public universities to implement revenue diversification strategies in the

climate of budget cuts which is threatening the financial sustainability of higher education institutions in the country.

## REFERENCES

- Aboudzadeh, N., Shoshtari, A. and Hashemnia, S. (2014), “Crisis management: Planning for the inevitable”, *Management Science Letters*, Vol. 4 No.6, pp.1191-1196.
- Adams, R. (2014), “Lower government funding will hit teaching budgets in England”, *The Guardian*, 26 March, 2014, available at: <https://www.theguardian.com/education/2014/mar/26/lower-government-funding-university-teaching-england> (accessed 23 March 2018).
- Afriyie, A.O. (2013), “Financial sustainability factors of higher education institutions: a predictive model”, *International Journal of Education Learning and Development*, Vol. 3 No. 3, pp. 17-38.
- Agostino, D., Agostino, D., Dal Molin, M. and Dal Molin, M. (2016), “A grid approach to managing sustainability: evidence from a multiple Italian case study”, *International Journal of Sustainability in Higher Education*, Vol. 17 No. 6, pp. 875-894.
- Ahmad, A. R. (2015), “Income Generation Activities among Academic Staffs at Malaysian Public Universities”, *International Education Studies*, 194-203.
- Aliyeva, S., Flanagan, P., Johnson, A. and Strelow, L. (2016), “Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011–2015)”, *Frontiers in public health*, Vol. 4, doi: 10.3389/fpubh.2016.00144
- Bandura, A. (1997), *Self-Efficacy: The Exercise of Control*, New York: W. H. Freeman.
- Beath, J., Owen, R., Poyago-Theotoky, J. and Ulph, D. (2000), “Optimal

- Incentives for Income-Generation within Universities”, available at [http://www.academia.edu/download/30714510/Ulph\\_D.pdf](http://www.academia.edu/download/30714510/Ulph_D.pdf) (accessed 21 October, 2016).
- Browne Report: Independent Review of Higher Education Funding & Student Finance (2010), “Securing a Sustainable Future for Higher Education”, available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/422565/bis-10-1208-securing-sustainable-higher-education-browne-report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/422565/bis-10-1208-securing-sustainable-higher-education-browne-report.pdf) (accessed 24 May 2017).
- Chen, C. Y., Sok, P. and Sok, K. (2007), “Benchmarking potential factors leading to education quality: A study of Cambodian higher education”, *Quality Assurance in Education*, Vol. 15 No. 2, pp. 128-148.
- Chopp, R., Frost, S. and Weiss, D.H. (2015), *Remaking college: Innovation and the liberal arts*. JHU Press, Baltimore, MD.
- Dasari, M., Garbett, M., Miller, E., Machaín, G.M. and Puyana, J.C. (2016), “Implementation of a Hospital Electronic Surgical Registry in a Lower-Middle-Income Country”, *World Journal of Surgery*, pp.1-7.
- Datta, A. and Datta, S. (2015), “Cost Management Strategy in Higher Educations”, *The MA Journal*, Vol. 50 No. 11, pp. 25-30.
- Decramer, A., Smolders, C., Vanderstraeten, A. and Christiaens, J. (2012), “The impact of institutional pressures on employee performance management systems in higher education in the low countries”, *British Journal of Management*, Vol. 23, pp. S88-S103.
- Deloitte (2015), “Making the Grade 2015: The Key Issues Facing the UK Higher Education available at: <http://www2.deloitte.com/content/dam/Deloitte/uk/Documents/public-sector/deloitte-uk-making-the-grade-2015.pdf> (accessed 20 April, 2017).
- Dumestre, M.J. (2016), *Financial Sustainability in US Higher Education: Transformational Strategy in Troubled Times*, Springer, Rotterdam, Netherlands.
- Elgamal, M.A. (2012), “A proposed model of the determinants of the

- readiness for change in small professional sub-organisations”, *GSTF Business Review (GBR)*, Vol. 1 No. 3, pp. 45-50.
- Emira, M. (2014), “Higher education in Egypt since World War II: development and challenges. *Italian Journal of Sociology of Education*”, Vol. 6 No. 2, pp. 8-35.
- Ernst & Young (2012), *University of the Future*, available at: [http://www.ey.com/Publication/vwLUAssets/University\\_of\\_the\\_future/%24FILE/University\\_of\\_the\\_future\\_2012.pdf](http://www.ey.com/Publication/vwLUAssets/University_of_the_future/%24FILE/University_of_the_future_2012.pdf) (accessed 23 February 2017).
- Estermann, T., and Bennetot-Pruvot, E. (2011), “Financially Sustainable Universities II: European Universities Diversifying Income Streams, European University Association, Brussels, Belgium”, available at: [http://www.eua.be/Libraries/publications-homepage\\_list/Financially\\_Sustainable\\_Universities\\_II](http://www.eua.be/Libraries/publications-homepage_list/Financially_Sustainable_Universities_II) (accessed 12 September, 2018).
- Feleke, K. M. (2016), “Revenue Diversification and Reform in Ethiopian Higher Education”, *International Higher Education*, Vol. 87, pp. 25-27.
- Higher Education Commission (2014), “Too Good to Fail: The Financial Sustainability of Higher Education in England”, available at: <http://www.policyconnect.org.uk/hec/research/report-too-good-fail-financial-sustainability-higher-education-england> (accessed 14 January, 2017).
- Hunter, M. (2016), “How are budget cuts affecting Malaysian Public Universities?”, available at <https://asiancorrespondent.com/2016/02/how-are-budget-cuts-affecting-malaysian-public-universities/> (accessed 21 October, 2016).
- Johnson, A. T., & Hirt, J. B. (2011), “Reshaping academic capitalism to meet development priorities: The case of public universities in Kenya”, *Higher Education*, Vol. 61 No. 4, pp. 483-499.
- Johnstone, D. B. (2013), “US public universities in an era of continuing austerity: More of the same or profound change?”, available at: <http://gse.buffalo.edu/org/IntHigherEdFinance/> (accessed 23 February 2017).
- Karp, P. (2017), “Universities Australia attack Coalition’s \$2.2 bn funding

- cut revealed in Myefo”, *The Guardian Weekly*, Monday 18 December, 2017, available at: <https://www.theguardian.com/australia-news/2017/dec/18/coalitions-22bn-cut-from-universities> (accessed 23 March 2018).
- Kezar, A. and Eckel, P.D. (2002), “The effect of institutional culture on change strategies in higher education: Universal principles or culturally responsive concepts?” *The Journal of Higher Education*, Vol. 73 No. 4, pp. 435-460.
- Kwiek, M. (2008), “Academic entrepreneurship vs. changing governance and institutional management structures at European universities”, *Policy Futures in Education*, Vol. 6 No. 6, pp. 757-770.
- Malay Mail online (27 Oct, 2017), “After three-year dip, Higher Education Ministry’s budget goes up again”, available at: <https://www.malaymail.com/news/malaysia/2017/10/27/after-three-year-dip-higher-education-ministrys-budget-goes-up-again/1497059> (accessed 25 July, 2019).
- Mangeol, P. (2014), “Strengthening business models in higher education institutions: An overview of innovative concepts and practices”, available at: [www.oecd.org/edu/imhe](http://www.oecd.org/edu/imhe) (accessed 12 January 2016).
- Mandanici, F. and Pace, R. (2015), “University Financial Sustainability: A Comparison between Italy and other EU Countries (Part I: The Drivers)”, *Rivista Di Studi Sulla Sostenibilita’*, pp. 103-129.
- Masaiti, G., Mwelwa, K. and Mwale, N. (2016), “Shifting from Government Bursaries to a Loan Scheme in Higher Education: Exploring the Zambian Experience in Student Financial Aid”, *International Journal of African Higher Education*, Vol. 2 No. 1, pp. 69-99.
- Ministry of Higher Education Malaysia (2015), “Malaysia Education Blueprint 2015-2025 Higher Education”, available at: [http://www.moe.gov.my/cms/upload\\_files/files/3\\_%20Malaysia%20Education%20Blueprint%202015-2025%20\(Higher%20Education\).pdf](http://www.moe.gov.my/cms/upload_files/files/3_%20Malaysia%20Education%20Blueprint%202015-2025%20(Higher%20Education).pdf), (accessed 26 June 2016).
- Ministry of Higher Education Malaysia (2016), “Enhancing University

- Income Generation, Endowment and Waqf: University Transformation Programme, Purple Book”, available at: <https://www.mohe.gov.my/en/muat-turun/awam/penerbitan/university-transformation-programme/187-the-unitp-purple-book> (accessed 2 May 2017).
- Mitchell, M., Leachman, M. And Masterson, K. (2016), “Funding Down, Tuition Up: State Cuts to Higher Education Threaten Quality and Affordability at Public Colleges”, Centre on Budget and Policy Priorities, available at <https://www.cbpp.org/research/state-budget-and-tax/funding-down-tuition-up> (accessed 23 March 2018).
- Mohadeb, P. (2003), “Higher Education in Mauritius: An analysis of future financial sustainability”, available at <http://researchrepository.napier.ac.uk/3863/1/Mohadeb.pdf>, (accessed 22 October 2016).
- Naidoo, V., & Wu, T. (2014), “Innovations in marketing of higher education: Foreign market entry mode of not-for-profit universities”, *Journal of Business & Industrial Marketing*, Vol. 29 No. 6, pp. 546-558.
- Nordin, N. (2012), “The influence of leadership behavior and organisational commitment on organisational readiness for change in a higher learning institution”, *Asia Pacific Education Review*, Vol. 13 No. 2, pp. 239-249.
- Nuninger, W. and Châtelet, J. M. (2016), “A New Paradigm for Learners and Teachers Thanks to Situational Pedagogical Games: Strengthening Transversal Skills”, available at [https://books.google.com/books?hl=en&lr=lang\\_en&id=E-wODAAAQBAJ&oi=fnd&pg=PA325&dq=Nuninger+Chatelet&ots=rR5JaRvfNe&sig=eKdBBtcpU0K9oIpVq8qNbERK8xk](https://books.google.com/books?hl=en&lr=lang_en&id=E-wODAAAQBAJ&oi=fnd&pg=PA325&dq=Nuninger+Chatelet&ots=rR5JaRvfNe&sig=eKdBBtcpU0K9oIpVq8qNbERK8xk) (accessed 21 October, 2016).
- Okello-Obura, C. and Kigongon-Bukenya, I. M. N. (2008), “Financial management and budgeting strategies for LIS programmes: Uganda’s experience”, *Library Review*, Vol. 57 No. 7, pp. 514-527.
- Oliver, G., Henry, M., Newman-Rose, C., & Streete, T. (2013), “Strategies for Income Generation at the University of Technology, Jamaica”, *Latin American and Caribbean Journal of Engineering Education*, Vol. 2 No. 1, pp. 1-6.
- Parker, L. D. (2002), “It’s been a pleasure doing business with you: A

- strategic analysis and critique of university change management”, *Critical Perspectives of Accounting*, Vol. 13, pp. 603-619.
- Richard, R.B. (2012), “Shaping Education Policy: The Importance of Clarity, Commitment, and Consensus Building”, *The Foundation Review*, Vol. 4 No.4, pp.28-44.
- Rohayati, M. I., Najdi, Y. and Williamson, J. C. (2016), “Philanthropic Fundraising of Higher Education Institutions: A Review of the Malaysian and Australian Perspectives” *Sustainability*, Vol 8 No. 6, 541.
- Rozmus, A. (2012), “Diversification Of University Income – Polish Practice And International Solutions”, *Financial Internet Quarterly, e-Finanse*, pp. 64-75.
- Rubenstein, L.V., Danz, M.S., Crain, A.L., Glasgow, R.E., Whitebird, R.R. and Solberg, L.I. (2014), “Assessing organisational readiness for depression care quality improvement: relative commitment and implementation capability”, *Implementation Science*, Vol. 9 No.1, pp.1-10.
- Rusinko, C. A. (2010), “Integrating sustainability in management and business education: A matrix approach”, *Academy of Management Learning & Education*, Vol. 9 No. 3, pp. 507-519.
- Ryan, M. and Ogilvie, M. (2010), “Overseas students in Australia: An experiential view”, available at <http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=7383&context=ecuworks> (accessed 22 October, 2016).
- Salmi, J. (2009). Scenarios for financial sustainability of tertiary education. *Higher Education to 2030*, Vol. 2, pp.285-322.
- Schmidt, U. and Günther, T. (2016), “Public sector accounting research in the higher education sector: a systematic literature review”, *Management Review Quarterly*, Vol. 66 No. 4, pp. 235-265.
- Shattock, M. (2008) “Entrepreneurialism in Universities and the Knowledge

Economy”, *Diversification and Organisational Change in European Higher Education*, Maidenhead: Open University Press.

- Shea, C. M., Jacobs, S. R., Esserman, D. A., Bruce, K. and Weiner, B. J. (2014), “Organisational readiness for implementing change: a psychometric assessment of a new measure”, *Implementation Science*, Vol. 9 No.1, p. 7.
- Smeenk, S., Teelken, C., Eisinga, R. and Doorewaard, H. (2009), “Managerialism, organisational commitment, and quality of job performances among European university employees”, *Research in Higher Education*, Vol. 50, pp. 589-607.
- Teer-Tomaselli, R. (2016), “Capacity building, tertiary postgraduate interventions and the changing media environment in southern and eastern Africa”, *Journal of African Media Studies*, Vol. 8 No. 2, pp. 205-218.
- Teixeira, P. and Koryakina, T. (2013), “Funding reforms and revenue diversification—patterns, challenges and rhetoric”, *Studies in Higher Education*, Vol. 38 No. 2, pp. 174-191.
- Ter Chian, F.T. (2010), “A perception-based model for technological innovation in small and medium enterprises”, available at <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1011&context=ecis2010> (accessed 27 October, 2016).
- Timiryasova, A. V., Safiullin, L. N., Kramin, T. V. and Vorontsova, L. V. (2015), “Development of Recommendations on Improvement of the Institutional Environment of the Educational System of the Russian Federation”, *Asian Social Science*, Vol. 11 No. 11, pp. 155-161.
- Turta, T.A. (2011), “Organisational Readiness for Change in the Transformation Towards Service Business”, available at <http://dspace.cc.tut.fi/dpub/bitstream/handle/123456789/20661/turta.pdf?sequence=3&isAllowed=y> (accessed 29 October 2016).
- Uy, K.J.D., Naval, C.R.F., Valmores, S.E. and Etulle, H.N. (2014), “Financial

Sustainability of Research Centers in a University Setting”, available at <http://www.ejournals.ph/article.php?id=9457> (accessed 21 October, 2016).

Van Hoorebeek, M. and Marson, J. (2005), “Teaching and technology transfer as alternative revenue streams: A primer on the potential legal implications for UK universities”, *International Journal of Educational Management*, Vol. 19 No. 1, pp. 36-47.

Vincent, S., Roberts, J.T. and Mulkey, S. (2016), “Interdisciplinary environmental and sustainability education: islands of progress in a sea of dysfunction”, *Journal of Environmental Studies and Sciences*, pp.1-7.

Weiner, B. J. (2008). “Conceptualization and measurement of organisational readiness for change: a review of the literature in health services research and other fields”, *Med Care Res Rev*, pp. 379-436.

Weiner, B.J., Amick, H. and Lee, S. Y. (2008), “Conceptualization and measurement of organisational readiness for change: A review of literature in health services research and other fields”, *Medical Care Research Review*, Vol. 65 No. 4, pp. 379-436.

Weiner, B. J. (2009), “A theory of organisational readiness for change”, *Implement Sci*, Vol. 4 No. 1, p. 67.

Yusof, M.M. and Aziz, K.A. (2015), “Evaluation of Organisational Readiness in Information Systems Adoption: A Case Study”, *Asia-Pacific Journal of Information Technology and Multimedia*, Vol. 4 No. 2, pp. 69-86.

Yusuf, L.A. (2010), “Resourceful Financial Management as Panacea for University Sustainability in a Depressed Economy”, *Pakistan Journal of Social Sciences*, Vol. 7 No. 5, pp.347-350.