MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

OCTOBER 2021, VOLUME 9, ISSUE 4, 53 - 72
E-ISSN NO: 2289 – 4489

ASSESSING ORGANISATIONAL RESILIENCE OF PRIVATE HIGHER LEARNING INSTITUTIONS

Siti Nabilah Baharin[1], Fauziah Yusof[2], Jamaliah Said[3] & Afzal Izzaz Zahari[3*]

[1]
International Education Centre (INTEC), Universiti Teknologi MARA, Malaysia

[2]
Kolej Universiti Poly-Tech MARA, Malaysia

[3]
Accounting Research Institute, Universiti Teknologi MARA, Malaysia

Corresponding Author:
Accounting Research Institute, Universiti Teknologi MARA, Malaysia

E-mail:
afzalizzaz@uitm.edu.my

ABSTRACT

Private higher learning institutions (HLIs) are considered less resilient to environmental changes compared to other industrial counterparts. With a global pandemic such as the coronavirus (COVID-19), private HLIs need to leverage and strategise their operations to adapt to sudden changes. The purpose of this paper is to examine factors that contribute towards effective organisational resilience among private HLIs. The data were gathered from 122 management-level employees of private higher-level institutions. The data on the respondent's internal control systems (ICS), leadership capabilities, financial capabilities, enterprise resource management, and organisational resilience were collected using questionnaires. Descriptive statistics were reported, followed by Pearson's correlation and hypothesis testing using multiple regressions. The regression model revealed the ICS, financial capabilities, and enterprise risk management (ERM) practices that significantly influenced organisational resilience. The study results enable incorporations and prioritisation based on the levels of resilience that affect private HLIs through the design, adoption, and implementation of policies and practices that facilitate resilience. The current global outlook on private education indicated that research on private learning institutions was limited. This study provides critical information that enabled private HLIs to remain competitive.

Keywords: **Control Systems, Finance, Leadership, Organisational Resilience, Resource**

INTRODUCTION

Organisational resilience is the ability of an organisation to adapt to changes in the environment effectively (Mallak, 1998). Recent works of literature explained the importance of organisational resilience towards adapting to changes during the COVID-19 pandemic (Huang, Chen, & Nguyen, 2020; Rangachari & L Woods, 2020; Rai, Rai, & Singh, 2021). Organisational resilience refers to an organisational capability to anticipate and adjust to the environmental change due to disturbances and unexpected change in the environment (Horne, 1997; Burnard, Kevin, 2011; Mahadeen, Al-Dmour, Obeidat, & Tarhini, 2016; Marques, 2018). According to dynamic capability theory (DCB), to better improve the achievement of organisations, it would require two different capabilities, namely dynamic and operational capabilities (Bogodistov & Wohlgemuth, 2017). Some studies argued that both capabilities (dynamic and operational) are required for the organisations to become resilient effectively (Teece, 2007; Chmielewski & Paladino, 2007).

Private HLIs are considered less resilient to environmental changes compared to other industrial counterparts due to constraints such as limited resources (Shurville & Browne, 2007). The disruptive event of the COVID-19 pandemic had impacted various industries, such as the education industry, in which private HLIs need to leverage and strategise their operations to adapt to changes (Marinoni, Van't Land, & Jensen, 2020). The changes include the ability of institutions to anticipate selective resources management and proactive strategies to survive the economic scenario (Ghilic-Micu et al., 2011).

Malaysia has more than 20 public universities, 24 polytechnics, 37 public community colleges, 33 private universities, 5 foreign university branch campus, and around 500 private colleges (Grapragasem, Krishnan, & Mansor, 2014). This statistic indicates that education plays a major role in the economic growth of the country. The private sector in higher education improves the commercialisation process in enabling higher levels of teaching quality and professional development of students (Marimuthu, 2008). One example is Lim Kok Wing (LKW), a university that diversified its teaching content to better suit industry demands, and its graduates are in demand in certain specified industries (Phung & Raju, 2020). Another private institution is Kolej Universiti Poly-Tech MARA (KUTPM), which improves graduates' technical skills and knowledge transfer programmes to suit better industry demands (Johari, Zaini, Zaharim, Basri, & Omar, 2011).

Even without the global pandemic, the private education sector remains a competitive industry that had taken heavy losses in the earlier years. For example, Allianze University College of Medical Sciences (AUCMS) had a campus in Penang, Malaysia, but it had to be closed in 2014 due to insufficient funding that left employees being left unpaid (Say, 2014). The Albukhary International University (AIU) terminated all staff and temporarily closed its doors in 2014 to engage in new strategies (The Malaysian Insider, 2014). The University of Reading that had planned to open a branch campus at the Iskandar development project in Johor to date, had lost more than RM 120 million (The Malaysian Insider, 2014). The Malaysian Association of Private Colleges and Universities (MAPCU) representative stated that one-fifth of the private institutions in Malaysia face the risk of closures due to a lower rate of admissions and financial distress (Babulal & Solhi, 2020).

A resilient organisation could offer a wide range of services and products within a short period in response to the rapid changes in the environment (Singh et al,2013). It includes making internal changes to manage outcomes and revamp organisations structures to quickly adapt to unknown situations (Arteta, and Giachetti, 2004; Lu, and Ramamurthy, 2011). Several factors contribute to and impact organisational flexibility to suit environmental changes (Wendler, 2016). One of the factors is the organisation's capabilities in becoming more agile to integrate organisational processes with technology (Crocitto & Youssef, 2003).

Works of literature further identified various factors such as leadership capabilities, ERM, financial capabilities, information technology capabilities, and disaster risk planning capabilities as parts of the foundation to build organisational resilience (Zabolotnyy & Wasilewski, 2019; Roslan & Dahan, 2013; Songling et al., 2018). However,

not many empirical studies are available to support this argument. Dynamic capability theory (DCT) argued that dynamic and operational capabilities are crucial to facilitate organisations to adapt to a destructive event; or otherwise, they will fade away (Menéndez Blanco & Montes-Botella, 2017). This situation can be seen in the earlier examples where private institutions that fail to manage financial and operational activities would result in their closure or cease to operate. Hence, this study aims to empirically examine whether the four highest-order capabilities proposed by DCT, namely leadership capability, financial capability, ERM systems, and ICS, contribute to organisational resilience among private HLIs in Malaysia.

Research Objectives

The purpose of this study is to examine factors that contribute towards effective organisational resilience among private HLIs. The study intended to determine whether ICS, financial capabilities, leadership capabilities, and ERM contribute to any improvements towards organisational resilience. In line with this statement, the study aims to:

1. examine the relationship between ICS towards organisational resilience.
2. examine the relationship between financial capabilities towards organisational resilience.
3. examine the relationship between leadership capabilities towards organisational resilience.
4. examine the relationship between ERM towards organisational resilience.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Organisational resilience refers to organisations' capability to evolve in time by adapting to situation and environment (Horne, 1997; Mallak, 1998). Organisational resilience includes the identification of the organisations' set of capabilities. For organisations to be resilient, they should have the ability to recover from any crises and be more flexible. Therefore, adapting and absorbing negative events in such an environment would imply that the organisations are effectively resilient (Ponomarov and Holcomb, 2009). Resilient organisations would possess the capability to turn threat and crises into chances and opportunities (Välikangas & Lewin, 2020). Hamel and Valikangas considered organisational resilience as organisations that can continuously anticipate and adjust to business trends (Hamel, and Valikangas, 2003). It would mean that resilience refers to the organisations' capability and capacity to change before the crises become obvious. Scholars argued that organisational resilience means that organisations can resist the adverse situation and recover after crises by returning to a normal state of operation (Horne, 1997; Horne, John, 1998; Robert, 2010). Robert explained that an organisation could restore and maintain its operation at a functional level despite the impacts of threats and crises (Robert, 2010).

Past works of literature highlighted various capabilities that facilitate organisations to be resistant towards challenges and negative events, and subsequently recover from impacts within a reasonable period (Linnenluecke & Martina,2012; Lengnick-Hall et al.,2011). A study by Sheffi, Rice, and James revealed that Nokia quickly adapted and recovered from negative events compared to Ericson. This statement was supported when the company gained a market share increase from 27% to 30%, while Ericson dropped from 12% to 9% (Sheffi, & Rice, 2005). DCT argued that capabilities are required to ensure the organisations to be successfully resilient in any situations at any stage (Vogus & Sutcliffe, 2007). At that time, the capability of Nokia of being resilient through an innovative product approach had successfully captured the market interest (Steinbock, 2001). The company is a prime example that previous success does not necessarily mean that it is resilient proof. In recent years, the company had failed to change its content effectively and had lost the smartphone battle (Vuori & Huy, 2016). Through strategic leadership and innovation, parts of the company were still surviving through organisational resilience and had chosen not to continue their smartphone business activities (Cuthbertson, Furseth, & Ezell, 2015).

Internal Control Systems and Organisational Resilience

Internal control systems are the process, techniques, and mechanisms that enable organisations to achieve their objective and goals and become responsive in mitigating risks (Agyapong, 2017). Internal control activities are recognised and identified as procedures, techniques, and mechanisms that assist the management to be more responsive towards risk, which is already being identified in the organisation's risk assessment process (Rae & Subramaniam, 2008). With effective internal control systems, organisations can minimise any negative impact or unexpected outcomes (Lansiluoto, Jokipii, & Eklund, 2016). In addition, internal control systems assist organisations to operate effectively as the system can detect irregularities and errors in their operation (Pathak, 2005; Wardiwiyono, 2012). Through a reliable ICS in place, private higher institutions can improve their effectiveness and achieve their objectives with improved efficiency (Yudianti, 2015).

A study by Ahmad and Muhammed discovered that organisations with poor financial performance might be due to having an ineffective ICS in place (Ahmed & Muhammed, 2018). The ongoing rapid changes and advancement of technology, globalisation, and high acceleration of business pace would have contributed to higher complexities of operational risk towards the environment (Westphal, 2002). Strong ICS would enable organisations to cope with unanticipated risks, such as fraud, cybersecurity breaches, corruption, and unexpected turn of events such as COVID-19 that require organisations to possess mitigation plans that are ready to take place (Le, Vu, & Nguyen, 2020). The actions would ensure that organisations minimise any risk types internally and externally (Sanusi, Mohamed, Omar, & Mohd Nassir, 2015). An effective ICS would also enable organisations to become more agile and resilient to continue their operation regardless of the risks (Kelebetse, Tangirala, Sethate, & Kuruba, 2019).

A study conducted in Kenya for processing companies indicated a positive relationship between ICS and the company's performance (Bett & Memba, 2017). Through an effective ICS, the company can improve its output processes and controls over their employees. Another study in Gaborone, South Africa, examined the relationship between ICS and resilience, revealing that the company could improve its growth due to effective ICS (Kelebetse et al., 2019). Thus, the study supported that ICS can promote a more effective and efficient business operation. Thus, the following is the hypothesis:

H1: There is a positive relationship between ICS and the resilience of private HLIs.

Financial Capabilities and Organisational Resilience

Financial capabilities refer to the ability to develop and function the balance of the organisation's assets and liabilities based on the internal and external environment to ensure its attractiveness of the long-term investment within the range of acceptable risk (Al Kharusi, 2017). The organisation's financial capability would reflect having a stable excess of income over its expenses to be sustainable (Fonseka, Tian, & Li, 2014). When the organisation can provide higher cash levels, this would lead to a constant or even higher level of productivity as the entity would have higher levels of capacity to improve organisational resilience (Pal, Torstensson, & Mattila, 2014). Therefore, financial capabilities would be considered one of the most important factors to ensure the organisation's continuity in any industry (Ashmarina et al., 2016).

Organisations respond poorly to changes in the environment due to insufficient resources (Harrison, Hitt, Hoskisson, & Ireland, 2001). The assumption here is that higher education institutions that possess sound financial capabilities with a stable income can cope with unexpected changes during an unexpected event or economic crises (Al Kharusi, 2017). Inadequate resources would lead to disruptive organisational behaviours, such as employee morale distress, leading to organisational failure (DeTienne, Agle, Phillips, & Ingerson, 2012). Education institutions with strong financial capabilities can improve their growth compared to other counterparts with fewer resources (Denneen & Dretler, 2012; Johnstone, 2013). This situation proved the importance of financial

capabilities to survive in any crises and critical situations. Organisational resilience with the support of financial capabilities could guarantee organisations' long-term continuity (Sanchis, Canetta, & Poler, 2020)
A study of Swiss private enterprises revealed that when organisations did not achieve the targeted levels of financial stability, there were higher levels of risks of going bankrupt (Schwab, Gold, & Reiner, 2019). A study of private higher education institutions from public listed educational institutions revealed that companies with strong financial capabilities have strong structures enabling them to have longer periods of livelihood in the industry (Al-Kharusi & Murthy, 2017b). Hence, this study presents the following hypothesis:

H2: There is a positive relationship between financial capability and resilience of private HLIs.

Leadership Capabilities and Organisational Resilience

Leadership capabilities are the ability of a leader or a group of leaders to inspire, direct, and lead others within the organisation to achieve goals or objectives (Robinson, 2010). Leadership is defined as the process of social influence from the superior level of authority to subordinates (Oc & Bashshur, 2013). Leadership is also associated with the ability to exert influence over others as they have the necessary power to do so (Kochan, Schmidt, & DeCotiis, 1975)

Leadership has been continuously associated with organisational performance as it is considered one of the significant driving forces in achieving success and reducing wastages such as corruption (Rashid, Sambasivan, & Rahman, 2004; Hassan, Wright, & Yukl, 2014; Erakovich & Kolthoff, 2016; Zahari, Said, & Arshad, 2020). Leadership is a dynamic relationship based on mutual trust and influence between one person called a leader and another person called a follower (McLaurin & Al Amri, 2008). This relationship of mutual trust was proven to give higher levels of results in terms of technical skills, personal development, and motivation to promote changes within the organisation positively.

Leaders who possess effective leadership can work and cooperate with their subordinates or followers to achieve goals and targets (Nahavandi, Denhardt, Denhardt, & Aristigueta, 2013). They can complement each other and function well together, including adapting to the changing demands from external forces such as stakeholders (Nazaruddin, Sofyani, & Zakiah, 2020). Various studies were conducted to discover and explore the impact of leadership on work and task outcomes from the employees, especially on their commitment (Neubert, Carlson, Kacmar, Roberts, & Chonko, 2009; Kim & Brymer, 2011; Lunenburg, 2012). Studies involved leadership with employee commitment (Yiing & Ahmad, 2009), job satisfaction (Duffield, Roche, O'Brien-Pallas, Catling-Paull, & King, 2009), turn-over intentions (Ansari, Hung, & Aafaqi, 2007), and performance (Parry & Proctor-Thomson, 2003). However, further investigation is needed to investigate the relationship between leadership and organisational resilience. In addition, there is a need for organisations to become more aware of their environmental surrounding to avoid disruptive events (Gurning & Cahoon, 2009).

Organisations need to establish leadership capabilities beyond ordinary competencies. Capabilities carry the meaning of skills, knowledge, personal experience, and attributes that can be applied to a standard expectation in professional practice at a certain level of proficiency (Sotarauta, 2005). It focuses on the holistic view of an individual's ability to conduct a range of tasks and his/her ability to improve organisational working conditions (Bernburg, Vitzthum, Groneberg, & Mache, 2016). Improvements in organisational resilience can be achieved if the leaders can demonstrate continued support for the organisation's goals and missions (Denhardt & Denhardt, 2010). The leadership tone by leading through examples could improve the working conditions of the organisation (Staicu, Tatomir, & Lincă, 2013). The communication between leaders with their followers could encourage strong actions that will improve the organisation's success in achieving its goals (Bello, 2012).

Effective leaders can work and improve the organisational working conditions (Nahavandi, 2009; Nahavandi et al., 2013). They can complement each other and function well together. An organisation would be more responsive to

leaders that possessed a broad context of capabilities; thus, contributing to organisational resilience (Russo, Murrough, Han, Charney, 2012; Yehuda et al., 2006; Ferguson-Smith, 2010). Leadership capabilities in an organisation could ensure organisational resilience (Lengnick-Hall, Beck, & Lengnick-Hall, 2011; Suryaningtyas, Sudiro, Eka, & Dodi, 2019). This leads to the third hypothesis:

H3: There is a positive relationship between leadership capability and resilience of private HLIs.

Enterprise Risk Management (ERM) and Organisational Resilience

ERM involves the process of identifying risks and addressing risks systematically to gain a competitive advantage (Olson & Wu, 2015). Risk management refers to organisations' strategy to minimise risks in dealing with unexpected events, such as technological change, economic volatility, or even a change of government administration (Stoneburner, Goguen, & Feringa, 2002). The organisation would have to implement dynamic capabilities in their ERM to effectively manage and assess risks (D. Teece & Leih, 2016; Bogodistov & Wohlgemuth, 2017).

To be sustainable in an uncertain environment, organisations need to implement an adequate level of risk management system to develop specific strategies, framework, and policy in minimising potential losses (Yudianti, 2015). It includes the possibility of organisations exploring new opportunities and accepting different business opportunities (Songling, Ishtiaq, Anwar, & Ahmed, 2018). Responses towards unexpected threats and risks will become more effective when ERM is implemented efficiently by organisations. Unexpected events can be taken as an opportunity to gain a more competitive advantage when valid policies and frameworks are implemented to cater to risks and unfavourable events (Elahi, 2013).

Enterprise resource management contributes to improved business strategies in Pakistan small-medium businesses (SMEs) (Rehman & Anwar, 2019). Furthermore, a study of Indonesian universities concluded that through the implementation of ERM, the university could maintain healthy levels of good governance in their administration (Yudianti, 2015). Furthermore, a study of director-level employees shows that when there is ERM in place, the actions taken are more responsive towards unexpected threats and risks (Armeanu, Vintilă, Gherghina, & Petrache, 2017). Thus, leading to the following hypothesis:

H4: There is a positive relationship between enterprise resource management and the resilience of private HLIs.

RESEARCH METHOD

Sample

As of September 2020, the total number of private HLIs was 521. The questionnaires were distributed online using the application and website, Google Doc. The questionnaires were sent to top management or equivalent position members of HLIs. The university's top management is defined as chief executive officer (CEO), director, senior manager, rector, or equivalent employees who are professionals and administrative personnel tasked with managerial duties and roles. The target respondents hold such positions and possess adequate levels of knowledge to answer the questionnaire (Sills & Song, 2002). In addition, the respondents can relate to the variables inquired in the questionnaire that will improve the effectiveness of the study (Aldridge, 1998).

The data were gathered from 122 respondents from universities (36), college universities (62), and colleges (24). The respondents represented their organisations in the private higher learning education industry.

Table 1
Sample Composition

Total number of staff:		
101-200 staff	24	19.7
201-300 staff	22	18.0
Less than 100 staff	14	11.5
More than 300 staff	62	50.8
Types of institutions		
University	36	29.5
University College	62	50.8
College	24	19.7

Table 1 shows that most respondents were from college universities with a rate of 50.8% (62), followed by university with 29.5% (36), and college institutions that consisted of 19.7% (24). In terms of organisation size, the majority of organisations have more than 300 staff. The ones below 100 consist of small colleges and do not have large resources compared to a full-fledged university.

Scale

The development of the measurement scale used the Likert summated ratings (LSR) method. The scale is designed from 1 to 5 and answers conditions as follows: 1 for strongly disagree, 2 for disagree, 3 for unsure, 4 for agree, and 5 for strongly agree (Joshi, Kale, Chandel, & Pal, 2015).

Survey Questionnaire

The questionnaire is divided into six sections: demographic information, leadership capabilities, risk management practices, ICS, financial capabilities, and organisational resilience

a. Measurement of Variables

The second section inquired about the leadership capabilities in the organisation. The measurement includes leadership function in developing and implementing transformation for the organisation. Leaders should visualise and continue supporting the organisation's mission communication with their subordinate on the course of action to achieve targets and goals. Leadership capabilities are measured by skills, knowledge, personal experience, and attributes that can be applied to a standard expectation in professional practice at a certain level of proficiency. The items used were the adaptation of previous instruments from prior works of literature (Bass, B. M. & Avolio, 1990; Conger, 1992; Kotter, 1995; Hassan Asaari, Dwivedi, Lawton, & Desa, 2016; Marques, 2018)

The third section inquired about the levels of risk management practised by the organisation. The measurement of risk management included the values of possession and resources of the organisation. In addition, it included the management and assessment of risk integrated into the organisational framework (Nocco et al., 2006). The items used to measure ERM were based on the organisations' possessed risk, opportunity analysis, standard procedures in managing risk, and proper control systems (Rehman & Anwar, 2019).

The ICS in section four was based on the measurement of whether the organisation staff understand their responsibilities in internal control implementation, reports on a timely basis, and internal control review that are frequently carried out (Agyapong, 2017).

The measurement of financial capability included finance operation and the ability to pay the debt as one of the major factors or proxies to determine the organisation's financial capability (Altman, 1968; Li &Faff, 2019). Another measurement included in this section was the ratio of financial revenue and return on asset (Henock, 2019). The measurements included in this survey assessed financial capabilities, including probability analysis, liquidity analysis, and asset management analysis (Al-Kharusi & Murthy, 2017a)

The final section of organisational resilience was measured based on the capability of the organisation to turn threats and crises which negatively impacted the organisation into chances and opportunities. Existing literature defines enterprise organisational resilience as the enterprise that can adapt to any crises (Vogus & Sutcliffe, 2007). Organisational resilience is measured by the capability to turn threats and crises which negatively impacted the organisation into chances and opportunities (Valikangas, 2010). As a result, the organisation could return to a normal state of operation and management (Horne, 1997; Horne, John, 1998; Robert, 2010). It includes the ability of the organisation to restore and maintain its operation at a functional level despite the impacts of threats and crises (Robert, 2010). Resilience also emphasises the ability to quickly resume operation and business at an expected performance level (Lengnick-Hall et al.,2011). The measurements in this survey included the response to unexpected crises, monitoring environment practice in developing strategies, and making the decision quickly (Prayag, Chowdhury, Spector, & Orchiston, 2018).

b. Validation of the Measurement

The questionnaire used in this study was adapted from original resources as the validity of items was validated for specific construct. Therefore, reliability analysis was conducted to determine the Cronbach's alpha value for each variable.

The Cronbach's alpha value provided the researchers with a simple way to measure and indicate whether a measurement is reliable or not. It is used by the expectation and assumption on several items in measuring the same underlying construct. The general rule is that a Cronbach's alpha value of .70 and above is good, .80 and above is better, and .90 and above is the best (George & Mallery, 1999; Pallant, 2007). To have reliable data, the Cronbach's alpha value should be above the value of α above 0.8 (Field, 2013).

Table 2. *Reliability Statistic*

Variables	Cronbach's Alpha	Number of items
Internal Control Systems	0.971	10
Financial Capabilities	0.925	7
Leadership Capabilities	0.960	10
Enterprise resource management	0.933	10
Organisational Resilience	0.923	7

The variables of ICS, leadership capabilities, financial capabilities, enterprise resource management, and organisational resilience of the study had high reliabilities. The values of Cronbach's α were beyond 0.8, which makes the data have high levels of reliability. There is an internal consistency within the constructs of the instruments used in the study.

DATA ANALYSIS

Construct Validity

The use of construct validity is linked to the degree to which the aspects of data can be made legitimate towards the theoretical or overall construct of the study (Donaldson & Grant-Vallone, 2002; Wessel, Bradley, & Hood, 2019). The confirmatory factor analysis is used when the related variable confirms the values and compares them with prior studies (Field, 2013a). The study assesses its reliability and validity by looking at single item reliability and validates them by using confirmatory factor analysis using the SPSS statistical package with methods of item-total correlation and Cronbach's alpha. The study concludes that the selected scales are reliable based on the alpha values reported within the acceptable range (Field, 2013). The confirmatory factor analysis was used to test the factorial validity of all the data.

The study initiated a factors extraction method with a varimax rotation to improve and maximise the relationship between the variables and evaluate the factor structure as presented in Table 3. In addition, through confirmatory factor analysis, several items were removed from the construct of some variables as they achieved low levels of outer loadings (Hair, Anderson, Tatham, & Black, 2010).

Table 3
Outer Loading

Items	Outer Loading	Measuring Items (Descriptions)
A1	0.345	Our institution leaders do not resist change
B1	0.258	Our institution provides a common understanding of the objectives of each ERM's initiative implementations
B7	0.220	Our institution identifies and selects risk responses
C2	0.372	Our institution develops strategies to overcome negative circumstances
D7	0.368	Our institution can cope with new competitors with more advanced strategies

These items were deleted due to low loading values. However, the items show that they have valid responses from respondents, and the respondents are also aware of the overall measured item construct within the variables

Goodness-of-Fit for a Linear Model

The R2 in Table 4 shows the value of .592, which means that 59.2% of the variance in the organisational resilience was explained by the variation of ICS, financial capability, leadership capabilities, and ERM. Therefore, adjusted R2 of 57.8% of the organisational resilience in a private HLI was explained by the variation in the ICS, financial capability, leadership capabilities, and ERM after considering the sample size and number of independent variables used in this study.

Table 4
Square for Organisational Resilience

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.770a	.592	.578	.67910	.592	41.781	4	115	.000

a. Predictors: (Constant), ICS, Financial capability, Leadership Capabilities, ERM

Correlation Analysis

Table 3 shows the result of correlation analysis between the variables. The organisational resilience variable showed a high positive correlation with financial capability and ERM at a significant level of .01 for ERM and .007 for financial capability when r = 0.72 for ERM and r = - 0.244 for financial capability. For ICS, there was a high positive correlation between financial capability and leadership capabilities at a significant level of 0.1 when r = 0.648 for financial capability and r = 0.775 for leadership capabilities, respectively.

For financial capability, it can be concluded that there was a high correlation with leadership capabilities at a significant level of 0.01 when r = 0.752. For leadership capabilities, the result indicates that a high correlation existed with ICS and financial capability at a significant level of 0 .01 with r = 0.775 for ICS and r = 0.752 for financial capability. Lastly, for ERM, a high correlation can only be seen in the organisational resilience variable at a significant level of .01 when r = 0.725. For the overall result, some variables significantly correlated with others. However, some variables did not significantly correlate as per the result above.

Table 5
Correlation Analysis

	Organisational Resilience	ICS	Financial Capability	Leadership Capabilities	ERM
Organisational resilience	1				
Internal control systems	.084 .363	1			
Financial capabilities	-.244** .007	.648** .000	1		
Leadership capabilities	-.012 .894	.775** .000	.752** .000	1	
Enterprise risk management	.725** .000	.079 .387	-.103 .258	.048 .601	1

Multiple Regression Analysis

a. Normality Test

Using the statistical method (Shapiro-Wilk test) and graphical test, we analysed each variable's normality. The study observed that the plots for each variable were near to the axis, indicating the data were normally distributed, although there was an outlier in the data set.

b. Multi-collinearity

The use of Pearson's test in Table 4 was to check if there were any multicollinearity issues within the data. The multicollinearity issues in Pearson's test can exist if the two variables correlate more than 0.7 (Field, 2016). None of the correlations among the independent variables exceeded 0.90. Thus, the threat of multicollinearity is limited (Field, 2016). The variable should be omitted if there are any issues of multicollinearity that create singularity towards the tests.

c. Results

The regression was conducted with the analysis of variance (ANOVA). The test was used to conduct hypothesis testing based on the study objectives. ANOVA can test the significance between organisational resilience and the tested variables (Field, 2013). Based on Table 4, the model can be concluded as having a significant value at 5% (F = 41.781, p = .000).

Table 6
Significance of the Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	77.073	4	19.268	41.781	.000b
Residual	53.035	115	.461		
Total	130.108	119			

a. Dependent Variable: Organisational Resilience

b. Predictors: (Constant), ICS, Financial capability, Leadership Capabilities, ERM

Table 7
Regression Analysis

Model	B	Std. Error	t	Sig
(Constant)	1.220	.387	3.154	.002
Internal control system	.321	.128	2.508	.014
Financial capabilities	-.508	.134	-3.801	.000
Leadership capabilities	.017	.130	.134	.894
Enterprise risk management	.722	.066	10.906	.000

A. Dependent Variable: Organisational Resilience
At 5% significant level

This study examines whether ICS, financial capabilities, leadership capabilities, and ERM practices contribute to organisational resilience. Table 5 shows the finding of regression analysis of the four independent variables, where the coefficient for ICS is B = 0.321, t = 2.508, p = 0.014, where p < .05. This result shows that the first hypothesis in this study was supported: ICS has a positive relationship with organisational resilience. The Beta coefficient value of (.321) indicates that every 1% rise in ICS contributed to the improvement of organisational resilience by 0.32%. Other past studies reported similar finding (Belle, 2009; Donald, 2003; Mohsin & Kamal, 2012).

The study's second objective is to examine whether financial capability contributes to organisational resilience in private HLIs. Based on the table, the coefficient value of financial capability is B = -0.508, t = -3.801, p = 0 .000, where p < 0.05. From the result obtained, the value of beta for financial capability indicated a significant negative relationship between financial capability and organisational resilience in private HLIs. The higher the financial capability possessed by the institution, the institution would have lower resilience. Thus, the second hypothesis in this study was not supported.

According to Ooghe & De Sofie, (2008), there is a financial reason why organisations fail to be sustainable and resilient towards challenges and crises although having a favourable financial statement was recorded. This may happen when the financial resources are not primarily used for the development of private HLIs. Failure to spend financial resources for training, marketing, promotion, and staff development, in the long run, may jeopardise the development of an institution. Hence, financial capacity did not contribute to organisational resilience. Moreover, the interest of stakeholders is not taken into account even though it is more risk-averse (Parrino et al., 2005).

Another reason stated from a past study is the lack of financial management. Therefore, it is concluded that management may be in deficiencies in managing their finances. During the growth phase, where the organisation possesses financial stability, managers fail to manage the operational and financial aspects of the business critically. Thus, this led to bankruptcy (Argenti, 1976).

For an organisation to collapse, many symptoms can be shown in which financial distress follows rapidly. Low cash flow and profitability significantly can drop even if the organisation finances are healthy in the first place (Ooghe & De Sofie, 2008). Based on past studies, it was concluded that the hypothesis of this study was not supported. It is not necessary that when an institution possesses financial capability, the institutions can be resilient towards the dynamic risks surrounding them.

The third objective of the study is to examine whether leadership capabilities have an impact on organisational resilience. This study included leadership capabilities as one of the factors which contribute to organisational resilience in private HLIs. The coefficient value of leadership capabilities is B = 0.017, t = 0.134, p = 0.894, where p > 0.05. From the result, it can be concluded that leadership capabilities did not have a significant relationship with organisational resilience in private HLIs. Thus, the third hypothesis was not supported in this study.

For the finding of leadership capabilities, the hypothesis was not supported due to several reasons. The first reason is bias; either respondents intentionally or unintentionally did it. This is an important issue as questionnaire distribution involved contemporary social-personality assessment (Podsakof et al,. 2012).

The following variable, ERM, was tested against organisational resilience. This study concluded that ERM is one of the factors which contributed to organisational resilience in private HLIs. Based on the result, the coefficient value of ERM is .722, t = -10.906, p = .000, where p < .05. Thus, ERM has a significant positive relationship with organisational resilience in private HLIs.

We can conclude that the hypothesis was supported in this study. The results of this study aligned well with prior studies that ERM practices are recognised as the internal capabilities of a firm (Bogodistov & Wohlgemuth, 2017; Songling, Ishtiaq, & Anwar, 2018). This variable would enhance organisations' profit and lead to sustainability as the organisations can be resilient against adverse and crises situation. Organisations need to implement dynamic capabilities in their ERM to effectively manage and assess risks (Bogodistov & Wohlgemuth, 2017). Dynamic challenges would give rise to risks faced by organisations, including private HLIs. From the analysis, it was proven that ERM contributed to organisational resilience in private HLIs.

DISCUSSION AND CONCLUSION

Private HLIs need to compete among themselves and public universities, which offer fewer fees as the government assists them. The quality of their students could also be the benchmark of the private institutions. With strong ICS in place and effective implementations, private HLIs could ensure the quality is at par or above public universities and institutions. One of the critical factors is that private institutions need to consider the quality of their students and graduates. Azilah Anis, Rafikul Islam, (2015) stated that good quality students are significant matters that should be considered by private institutions.

Based on the findings, we can conclude that ICS has a significant relationship with institutions' financial capability. This is another critical point that should be considered. When effective ICS is in place, the financial transactions of the institutions will not go to waste. Fraud and errors in transactions can be minimised as the application of ICS is effectively conducted (Zahari, Said, & Arshad, 2019). Thus, ICS is one of the factors that contribute to organisational resilience in private HLIs.

The second finding of this study is that financial capabilities can contribute to the organisational resilience of private HLIs. However, the result indicated that the result of the relationship between organisational resilience and financial capability was negative in nature. One of the possible reason of this finding may be due instances that organisations that has strong financial capability does not necessarily means that it is resilient. An organisations that is deemed to have strong resilience can also fail without proper leadership values in place (Bello, 2012) Without the skills and expertise in managing money and the wealth of institutions, even at the growth stage, the institutions that are not resilient and sustainable towards risks and upcoming crises can become a failure (Linnenluecke & Griffiths, 2010).

There are financial and nonfinancial symptoms of the bankruptcy of organisations. However, the symptoms are not necessarily detectable in the early stages. If the top management of the institutions does not consider risk assessments, the wrong investment would be made, which will be costly to the stakeholders. The top management might be willing to take a higher risk of investment but not the stakeholders. There can be a rapid financial decline in the organisation if the top management does not exert high skills and expertise in financial management and prudence.

The third research question is leadership capabilities as one of the factors that contribute to organisational resilience. For the last variable, ERM has a significant relationship with organisational resilience. ERM was identified as one of the factors which contributed to organisational resilience in private HLIs. This statement is supported by past studies (Pathak, 2005; Yudianti, 2015; Bogodistov & Wohlgemuth, 2017; Songling, Ishtiaq, & Anwar, 2018). When an organisation recognises and identifies the embedded risk within the organisation, appropriate risk management is used to avoid and prevent potential risks from having a significant negative impact on the organisation (Bromiley and Rau, 2016).

This study recommends private institutions implement an effective ICS, financial capability, and ERM. In the current situation of various crises and challenges, business entities and private institutions are also affected. Pandemic outbreaks have a significant impact on all business entities, including private HLIs. Thus, there is the importance of having a good risk management system in place. Effective risk management can assist institutions to keep operating and become sustainable in any kinds of environment. Therefore, it is recommended for private HLIs to implement a risk management system. Preventive measures and approaches can be recorded if potential risks arise. Private HLIs shall be ahead in terms of managing risk. If the risks are realised, the correct solution and approach can be strategised.

For the leaders in the organisation, training and development courses must be continuously executed. From the results of this study, we concluded that leadership capabilities did not contribute to organisational leadership in private HLIs. However, in real life, human capital is considered important to ensure organisations can operate effectively. Leading by example is important as subordinates will respect and follow the leaders (Staicu et al., 2013). Leaders need to be knowledgeable and skilful besides having high levels of emotional intelligence (EQ) (Riggio & Reichard, 2008). They must communicate effective strategic plans to all respective levels in the institutions to ensure their subordinates are clear about the institution's missions and visions. Thus, the whole team in the institution should be working on the same goals to improve performance (Zaccaro, Gilbert, Thor, & Mumford, 1991).

Thus, proper strategy and financial management must be in place to ensure that each invested capital is utilised properly in any organisation. If reckless spending is practised, even a highly profitable private HLI would not be sustainable and resilient. Leaders need to be trained on financial management and consider risks carefully so that no wrong steps are taken in utilising the stakeholders' investments. Students, teaching staff, and parents are also affected if there are no clear steps in ensuring that the organisation's resilience remains effective. The current global scenario demands improvements in these areas to remain relevant and sustainable.

Study Limitations

The emergence of online surveys via the internet during the 1990s has resulted in the reduced dominance of telephone surveys as the online survey has an advantage in terms of the associated cost and speed. Thus, the online survey is a more promising alternative than the prior method (Sills & Song, 2002). However, there are still problems related to this method. The problems include the coverage and representativeness of results from the online survey that are difficult to ascertain due to the limitations of human interactions (Sonck, 2008; Podsakof, MacKenzie, & Podsakoff, 2012).

The basic drawback and the lack of representativeness of respondents using online survey revealed the limitation to only people who have online internet coverage (Podsakof, MacKenzie, & Podsakoff, 2012). The online survey can come from different socio-demographic characteristics, which weighed in the variables (Sonck, 2008). The different background of respondents based on their socio-demographic base would reflect different attitudes in the surveys.

REFERENCES

Agyapong, K. E. (2017). Internal Control Activities as a Tool for Financial Management in the Public Sector: A Case Study of Ghana Post Company Limited. *Journal for the Advancement of Developing Economies*, *6*(1), 43–77. https://doi.org/10.32873/unl.dc.jade6.1.3

Ahmed, A. M., & Muhammed, A. A. (2018). Internal control systems & its relationships with the financial performance in telecommunication companies —a case study of Asiacell‖. *International Journal of Scientific and Technology Research*, *7*(11), 82–88. https://doi.org/10.29358/sceco.v0i28.416

Al-Kharusi, S., & Murthy, S. R. (2017a). Financial sustainability of private higher education institutions: The case of publicly traded educational institutions. *Investment Management and Financial Innovations*, *14*(3), 25–38. https://doi.org/10.21511/imfi.14(3).2017.03

Al-Kharusi, S., & Murthy, S. R. (2017b). Financial Sustainability of Private Higher Education Institutions: The case of publicly traded educational institutions. *Investment Management and Financial Innovations*, *14*(3), 25–38.

Al Kharusi, S. (2017). Financial Sustainability of Private Higher Education Institutions: The case of publicly traded educational institutions. *Investment Management & Financial Innovations*, *14*(3), 25.

Aldridge, S. (1998). Measuring Customer Satisfaction in Higher Education. *Quality Assurance in Education*, *6*(4), 197–204.

Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *J. Financ.*, *23*(4), 589–609.

Ansari, M. A., Hung, D. K. M., & Aafaqi, R. (2007). Leader-member Exchange and Attitudinal Outcomes: Role of procedural justice climate. *Leadership & Organization Development Journal*.

Argenti, J. (1976). *Corporate Collapse: the causes and symptoms*. London: McGraw-Hill.

Armeanu, D. Ş., Vintilă, G., Gherghina, Ş. C., & Petrache, D. C. (2017). Approaches on correlation between board of directors and risk management in resilient economies. *Sustainability (Switzerland)*, *9*(2), 1–15. https://doi.org/10.3390/su9020173

Arteta, B.M. and Giachetti, R. E. (. (2004). A measure of agility as the complexity of the enterprise system. *Robotics and Computer-Integrated Manufacturing*, *20*(6), 495–503.

Ashmarina, S., Lubnina, A., Shinkevich, M., Zaitseva, N., Sayfutdinova, G., & Ishmuradova, I. (2016). Resource Saving Innovative Forms of the Industrial Enterprises. *International Journal of Economics and Financial Issues*, *6*(2), 479–483.

Azilah Anis, Rafikul Islam, N. A. A. (2015). Quality Assurance in Education Article information : Challenges Faced By the Malaysian Private HLIs in Providing Quality Education : A Thematic Analysis. *Quality Assurance in Education*, *26*(3), 349–373.

Babulal, V., & Solhi, F. (2020). Learning Institutions Floundering. *New Straits Times Online*, p. 1. Retrieved from

https://www.nst.com.my/news/nation/2020/06/601611/learning-institutions-floundering

Bass, B. M. & Avolio, B. J. (1990). Transformational Leadership Development: Manual for the Multifactor Leadership Questionnaire. In *Consulting Psychologists Press.*

Belle, S. W. (2009). Colleges and universities must not rest on their laurels. *Diverse Issues in Higher Education*, *26*(9).

Bello, S. M. (2012). Impact of Ethical Leadership on Employee Job Performance. *International Journal of Business and Social Science*, *3*(11), 228–237.

Bernburg, M., Vitzthum, K., Groneberg, D. A., & Mache, S. (2016). Physicians' Occupational Stress, Depressive Symptoms and Work Ability in Relation to their Working Environment: A cross-sectional study of differences among medical residents with various specialties working in German hospitals. *BMJ Open*, *6*(6), e011369.

Bett, J. C., & Memba, F. S. (2017). Effects of Internal Control on the Financial Performance of Processing firms in Kenya: A case of Menengai company. *International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)*, *4*(1), 11–22.

Bogodistov, Y., & Wohlgemuth, V. (2017). Enterprise Risk Management: A capability-based perspective. *Journal of Risk Finance*, *18*(3), 234–251. https://doi.org/10.1108/JRF-10-2016-0131

Bromiley, P. and Rau, D. (. (2016). A better way of managing major risks: Strategic risk management. *IESE Insight*, *28*, 15–22.

Burnard, Kevin, and R. B. (2011). Organisational resilience: development of a conceptual framework for organisational responses. *International Journal of Production Research*, *49*(18), 5581–5599.

Chmielewski, D; Paladino, A. (2007). *Analysing the characteristics and consequences of resource orientation: an empirical study*. University of Otago.

Conger, J. (1992). *Learning to Lead: The Art of Transforming Managers into Leaders.* San Francisco: JosseyBass.

Crocitto, M. and Youssef, M. (2003). The Human Side of Organizational Agility. *Industrial Management and Data Systems*, *103*(6), 388–397.

Cuthbertson, R., Furseth, P. I., & Ezell, S. J. (2015). Apple and Nokia: The transformation from products to services. In *Innovating in a Service-Driven Economy* (pp. 111–129). Springer.

Denhardt, J., & Denhardt, R. (2010). Building Organizational Resilience and Adaptive Management. *Handbook of Adult Resilience*, 333–349.

Denneen, J., & Dretler, T. (2012). The Financially Sustainable University. *Bain & Company*, *12*.

DeTienne, K. B., Agle, B. R., Phillips, J. C., & Ingerson, M.-C. (2012). The Impact of Moral Stress compared to other Stressors on Employee Fatigue, Job Satisfaction, and Turnover: An empirical investigation. *Journal of Business Ethics*, *110*(3), 377–391.

Donald, E. H. (2003). Building a leadership vision: eleven strategic challenges for higher education. *EDUCAUSE Review*, *38*(4), 24–28.

Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding Self-report Bias in Organizational Behavior Research. *Journal of Business and Psychology*, *17*(2), 245–260. https://doi.org/10.1023/A:1019637632584

Duffield, C., Roche, M., O'Brien-Pallas, L., Catling-Paull, C., & King, M. (2009). Staff Satisfaction and Retention and the Role of the Nursing Unit Manager. *Collegian*, *16*(1), 11–17.

Elahi, E. (2013). Risk Management: The next source of competitive advantage. *Foresight*.

Erakovich, R., & Kolthoff, E. (2016). Analysis of Ethical Leadership and Integrity Development in Local Government: The United States, The Netherlands, Montenegro, and Serbia. *International Journal of Public Administration*, *39*(11), 872–882. https://doi.org/10.1080/01900692.2015.1053612

Ferguson-Smith, M. and. (2010). Epigenetic regulation of the neural transcriptome: The meaning of the marks. *Nature Neuroscience*, *13*(11), 1313–1318.

Field, A. (2013). Discovering Statistics Using SPSS. In *Sage publications* (Vol. 3). https://doi.org/10.1111/insr.12011_21

Field, A. (2016). *An Adventure in Statistics*. SAGE Publications Limited.

Fonseka, M. M., Tian, G., & Li, L. (2014). Impact of Financial Capability on Firms' Competitiveness and Sustainability: Evidence from highly regulated Chinese market. *Chinese Management Studies*.

George, D., & Mallery, P. (1999). SPSS for Windows Step by Step: A simple guide and reference. *Contemporary*

Psychology, *44*, 100.

Ghilic-Micu, B., Mircea, M. and Stoica, M. (2011). Knowledge based economy–technological perspective: implications and solutions for agility improvement and innovation achievement in higher education. *Amfiteatru Economic Journal*, *13*(30), 404–419.

Grapragasem, S., Krishnan, A., & Mansor, A. N. (2014). Current Trends in Malaysian Higher Education and the Effect on Education Policy and Practice: An overview. *International Journal of Higher Education*, *3*(1), 85–93.

Gurning, S., & Cahoon, S. (2009). Analysis of Random Disruptive Events in Shipping and Port Operations. *International Forum on Shipping, Ports and Airports (IFSPA) 2009-Post-Financial Tsunami: The Way Forward for Shipping, Transport and International Trade*. Hong Kong Polytechnic University.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2010). Multivariate Data Analysis: A global perspective. In *Upper Saddle River* (7th Editio). New Jersey: Prentice Hall.

Hamel, G. and Valikangas, L. (2003). The quest for resilience. *Harvard Business Review*, *81*(9), 52–63.

Harrison, J. S., Hitt, M. A., Hoskisson, R. E., & Ireland, R. D. (2001). Resource Complementarity in Business Combinations: Extending the logic to organizational alliances. *Journal of Management*, *27*(6), 679–690.

Hassan Asaari, M. H. A., Dwivedi, A., Lawton, A., & Desa, N. M. (2016). Academic Leadership And Organizational Commitment In Public Universities Of Malaysia. *European Scientific Journal, ESJ*, *12*(16), 329. https://doi.org/10.19044/esj.2016.v12n16p329

Hassan, S., Wright, B. E., & Yukl, G. (2014). Does Ethical Leadership Matter in Government? Effects on Organizational Commitment, Absenteeism, and Willingness to Report Ethical Problems. *Public Administration Review*, *74*(3), 333–343. https://doi.org/10.1111/puar.12216

Henock, M. . (2019). Financial sustainability and outreach performance of saving and credit cooperatives: The case of Eastern Ethiopia. *Asia Pac. Manag. Rev*, *24*(1), 1–9.

Horne, John F., and J. E. O. (1998). Assessing Behaviors that Create Resilient Organizations. *Employment Relations Today*, (24), 29–39.

Horne, J. F. (1997). The coming of age of organizational resilience. *Business Forum*, *22*, 24–28.

Huang, W., Chen, S., & Nguyen, L. T. (2020). Corporate Social Responsibility and Organizational Resilience to COVID-19 Crisis: An Empirical Study of Chinese Firms. *Sustainability*, *12*(21), 8970.

Johari, M. H., Zaini, R. M., Zaharim, A., Basri, H., & Omar, M. Z. (2011). Perception and Expectation toward Engineering Graduates by Employers: A UKM study case. *2011 3rd International Congress on Engineering Education (ICEED)*, 203–207. IEEE.

Johnstone, D. B. (2013). Common Misunderstandings about the Financing of Higher Education World Wide. *Peking University Education Review*, *2*, 36–45.

Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert Scale: Explored and Explained. *British Journal of Applied Science & Technology*, *7*(4), 396–403. https://doi.org/10.9734/bjast/2015/14975

Kelebetse, O. M., Tangirala, S., Sethate, T., & Kuruba, G. (2019). Role of Internal Controls in Business Resilience and Growth of Small Businesses in Gaborone. *Archives of Business Research (ABR)*, *7*(10).

Kim, W. G., & Brymer, R. A. (2011). The Effects of Ethical Leadership on Manager Job satisfaction, Commitment, Behavioral Outcomes, and Firm Performance. *International Journal of Hospitality Management*, *30*(4), 1020–1026.

Kochan, T. A., Schmidt, S. M., & DeCotiis, T. A. (1975). Superior-subordinate Relations: Leadership and headship. *Human Relations*, *28*(3), 279–294.

Kotter, J. P. (1995). Leading Change: Why transformation efforts fail. *Harvard Business Review*, *73*(2), 59–67.

Lansiluoto, A., Jokipii, A., & Eklund, T. (2016). Internal Control Effectiveness: A clustering approach. *Managerial Auditing Journal*, *31*(1), 5–34. https://doi.org/10.1108/MAJ-08-2013-0910

Le, N. T. B., Vu, L. T. P., & Nguyen, T. V. (2020). The use of Internal Control Systems and Codes of Conduct as Anti-corruption Practices: Evidence from Vietnamese firms. *Baltic Journal of Management*.

Lengnick-Hall, Cynthia A., Tammy E. Beck, and M. L. L.-H. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review*, *21*(3), 243–255.

Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a Capacity for Organizational Resilience

through Strategic Human Resource Management. *Human Resource Management Review*, *21*(3), 243–255.

Li, L.; Faff, R. (2019). Predicting corporate bankruptcy: What matters? *Int. Rev. Econ. Financ*, *62*, 1–19.

Linnenluecke, Martina K., and A. G. (2012). Assessing organizational resilience to climate and weather extremes: complexities and methodological pathways. *Climate Change*, *113*(3–4), 933–947.

Linnenluecke, M. K., & Griffiths, A. (2010). Corporate Sustainability and Organizational Culture. *Journal of World Business*, *45*(4), 357–366. https://doi.org/10.1016/j.jwb.2009.08.006

Lu, Y. and Ramamurthy, K. (2011). Understanding the link between information technology capability and organizational agility: an empirical examination. *MIS Quarterly*, *35*(4), 931–954.

Lunenburg, F. C. (2012). Power and Leadership : An Influence Process. *International Journal of Management, Business, and Administration*, *15*(1), 1–9.

Mahadeen, B., Al-Dmour, R. H., Obeidat, B. Y., & Tarhini, A. (2016). Examining the Effect of the Organization's Internal Control System on Organizational Effectiveness: A Jordanian Empirical Study. *International Journal of Business Administration*, *7*(6), 22–41. https://doi.org/10.5430/ijba.v7n6p22

Mallak, L. (1998). Putting Organizational Resilience to Work. *INDUSTRIAL MANAGEMENT-CHICAGO THEN ATLANTA-*, 8–13.

Marimuthu, T. (2008). The Role of the Private Sector in Higher Education in Malaysia. In *Teaching: Professionalization, Development and Leadership* (pp. 271–282). Springer.

Marinoni, G., Van't Land, H., & Jensen, T. (2020). The Impact of Covid-19 on Higher Education around the World. *IAU Global Survey Report*.

Marques, J. & S. D. (2018). Leadership today. *Connecticut Medicine*, *82*(2), 125–128. https://doi.org/10.1007/978-3-319-31036-7

McLaurin, J. R., & Al Amri, M. B. (2008). Developing an Understanding of Charismatic and Transformational Leadership. *Allied Academies International Conference. Academy of Organizational Culture, Communications and Conflict. Proceedings*, *13*(2), 15. Jordan Whitney Enterprises, Inc.

Menéndez Blanco, J. M., & Montes-Botella, J. L. (2017). Exploring nurtured company resilience through human capital and human resource development: Findings from Spanish manufacturing companies. *International Journal of Manpower*, *38*(5), 661–674. https://doi.org/10.1108/IJM-11-2015-0196

Mohsin, M., & Kamal, M. . (2012). Managing quality in higher education in Bangladesh: Lessons from the Singaporean and Malaysian strategies and reform. *International Journal of Business and Management*, *7*(20), 59–70.

Nahavandi, A. (2009). *The Art and Science of Leadership* (5th ed.). Pearson Education, Inc,.

Nahavandi, A., Denhardt, R. B., Denhardt, J. V, & Aristigueta, M. P. (2013). *Organizational Behavior*. Sage Publications.

Nazaruddin, I., Sofyani, H., & Zakiah, S. (2020). The Role of Ethical Leadership, Organizational Support, and Participative Decision-Making in The Implementation of Effective Performance Measurement Systems in Higher Education Institutions. *Malaysian Online Journal of Educational Management*, *9*(1), 38–57.

Neubert, M. J., Carlson, D. S., Kacmar, K. M., Roberts, J. A., & Chonko, L. B. (2009). The Virtuous Influence of Ethical Leadership Behavior: Evidence from the field. *Journal of Business Ethics*, *90*(2), 157–170. https://doi.org/10.1007/s10551-009-0037-9

Nocco, B.W., Stulz, R. M. (2006). Enterprise risk management: Theory and practice. *Journal of Applied Corporate Finance*, *18*(4), 8–20.

Oc, B., & Bashshur, M. R. (2013). Followership, Leadership and Social Influence. *The Leadership Quarterly*, *24*(6), 919–934.

Olson, D. L., & Wu, D. D. (2015). *Enterprise Risk Management* (Vol. 3). World Scientific Publishing Company.

Ooghe, H., & De Sofie, P. (2008). Failure processes and causes of company bankruptcy: A typology. *Management Decision*, *46*(2), 223–242. https://doi.org/10.1108/00251740810854131

Pal, R., Torstensson, H., & Mattila, H. (2014). Antecedents of Organizational Resilience in Economic Crises: An empirical study of Swedish textile and clothing SMEs. *International Journal of Production Economics*, *147*, 410–428.

Pallant, J. (2007). SPSS Survival Manual. *A Step by Step Guide to Data Analysis Using SPSS for Windows (Version*

10), (10).

Parrino, R., Poteshman, A.M and Weisbach, M. S. (2005). Measuring investment distortions when risk averse managers decide whether to undertake risku projects. *Financial Management*, *34*(1), 21–60.

Parry, K. W., & Proctor-Thomson, S. B. (2003). Leadership, Culture and Performance: The case of the New Zealand public sector. *Journal of Change Management*, *3*(4), 376–399. https://doi.org/10.1080/714023843

Pathak, J. (2005). Risk management, internal controls and organizational vulnerabilities. *Managerial Auditing Journal*, *20*(6), 569–577. https://doi.org/10.1108/02686900510606065

Phung, S. P., & Raju, V. (2020). Amalgation of Diversified Streams of Building Academic Globalization: A case study of Lim Kok Wing University's post graduate centre. *PalArch's Journal of Archaeology of Egypt/Egyptology*, *17*(7), 6345–6354.

Podsakof, P.M., MacKenzie, S.B., & Podsakoff, N. P. (2012). Source of method bias in social science research and recommendations to control it. *Annual Review of Psychology*, *63*(1), 158–175.

Ponomarov, S.Y. and Holcomb, M. (2009). Understanding the concept of supply chain resilience. *The International Journal of Logistics Management*, *Vol. 20 No*, 124–143.

Prayag, G., Chowdhury, M., Spector, S., & Orchiston, C. (2018). Organizational resilience and financial performance. *Annals of Tourism Research*, *73*(3), 193–196. https://doi.org/10.1016/j.annals.2018.06.006

Rae, K., & Subramaniam, N. (2008). Quality of Internal Control Procedures: Antecedents and moderating effect on organisational justice and employee fraud. *Managerial Auditing Journal*, *23*(2), 104–124. https://doi.org/10.1108/02686900810839820

Rai, S. S., Rai, S., & Singh, N. K. (2021). Organizational Resilience and Social-economic Sustainability: COVID-19 perspective. *Environment, Development and Sustainability*, 1–18.

Rangachari, P., & L Woods, J. (2020). Preserving Organizational Resilience, Patient Safety, and Staff retention during COVID-19 requires a Holistic Consideration of the Psychological Safety of Healthcare Workers. *International Journal of Environmental Research and Public Health*, *17*(12), 4267.

Rashid, M. Z. A., Sambasivan, M., & Rahman, A. A. (2004). The Influence of Organizational Culture on Attitudes toward Organizational Change. *Leadership & Organization Development Journal*, *25*(2), 161–179. https://doi.org/10.1108/01437730410521831

Rehman, A. U., & Anwar, M. (2019). Mediating Role of Enterprise Risk Management Practices between Business Strategy and SME Performance. *Small Enterprise Research*, *26*(2), 207–227.

Riggio, R. E., & Reichard, R. J. (2008). The Emotional and Social Intelligences of Effective Leadership: An emotional and social skill approach. *Journal of Managerial Psychology*, *23*(2), 169–185. https://doi.org/10.1108/02683940810850808

Robert, B. ˆt. (2010). *Organizational Resilience—Concepts and evaluation Method*.

Robinson, V. M. J. (2010). From Instructional Leadership to Leadership Capabilities: Empirical findings and methodological challenges. *Leadership and Policy in Schools*, *9*(1), 1–26.

Roslan, A., & Dahan, H. M. (2013). Internal Audit and Organizational Performance : A Conceptual Framework. *International Journal of Commerce, Business and Management*, *2*(4), 212–215.

Russo, Murrough, Han, Charney, and N. (2012). Neurobiology of resilience. *Nature Neuroscience*, *15*(11), 1475–1484.

Sanchis, R., Canetta, L., & Poler, R. (2020). A Conceptual Reference Framework for Enterprise Resilience Enhancement. *Sustainability*, *12*(4), 1464.

Sanusi, Z. M., Mohamed, N., Omar, N., & Mohd Nassir, M. D. (2015). Effects of Internal Controls, Fraud Motives and Experience in Assessing Likelihood of Fraud Risk. *Journal of Economics, Business and Management*, *3*(2), 194–200. https://doi.org/10.7763/JOEBM.2015.V3.179

Say, T. L. (2014). Medic College Shakeout. *The Star Online*, p. 1. Retrieved from https://www.thestar.com.my/business/business-news/2014/08/26/medic-college-shakeout/

Schwab, L., Gold, S., & Reiner, G. (2019). Exploring Financial Sustainability of SMEs during periods of Production Growth: A simulation study. *International Journal of Production Economics*, *212*, 8–18.

Sheffi, Y.; Rice, J.B., J. (2005). A supply chain view of the resilient enterprise. *MIT Sloan Manag. Rev*, *47*(1), 41–48.

Shurville, S. and Browne, T. (2007). Introduction: ICT-driven Change in Higher Education: Learning from e-learning.

Journal of Organisational Transformation and Social Change, *3*(3), 245–250.

Sills, S. J., & Song, C. (2002). Innovations in Survey Research: An application of Web-based surveys. *Social Science Computer Review*, *20*(1), 22–30. https://doi.org/10.1177/089443930202000103

Singh, J., Sharma, G., Hill, J. and Schnackenberg, A. (2013). Organizational agility: What it is, what it is not, and why it matters. *Academy of Management, Briarcliff Manor*, *2013*(1), 11813.

Sonck, G. L. and N. (2008). An evaluation of the weighting procedures for an online access panel survey. *Surv. Res. Methodol*, *2*(2), 93–105.

Songling, Y., Ishtiaq, M., & Anwar, M. (2018). Enterprise Risk Management Practices and Firm Performance, the Mediating Role of Competitive Advantage and the Moderating Role of Financial Literacy. *Journal of Risk and Financial Management*, *11*(3), 35. https://doi.org/10.3390/jrfm11030035

Songling, Y., Ishtiaq, M., Anwar, M., & Ahmed, H. (2018). The Role of Government Support in Sustainable Competitive Position and Firm Performance. *Sustainability*, *10*(10), 3495.

Sotarauta, M. (2005). Shared Leadership and Dynamic Capabilities in Regional Development. *Regionalism Contested: Institution, Society and Governance*, 53–72.

Staicu, A. M., Tatomir, R. I., & Lincă, A. C. (2013). Determinants and Consequences of "Tone at the Top." *International Journal of Advances in Management and Economics*, *2*, 76–88.

Steinbock, D. (2001). The Nokia Revolution. *AMACOM, New York*.

Stoneburner, G., Goguen, A., & Feringa, A. (2002). Risk Management Guide for Information Technology Systems. *Nist Special Publication*, *800*(30), 800–830.

Suryaningtyas, D., Sudiro, A., Eka, T. A., & Dodi, I. W. (2019). Organizational Resilience and Organizational Performance: Examining the mediating roles of resilient leadership and organizational culture. *Academy of Strategic Management Journal*, *18*(2), 1–7.

Teece, D. J. (2007). Explicating dynamic capabilities: the nature and micro foundations of (sustainable) enterprise performance. *Strategic Management Journal*, *28*(13), 1319–1350.

Teece, D., & Leih, S. (2016). Uncertainty, Innovation, and Dynamic Capabilities: An introduction. *California Management Review*, *58*(4), 5–12.

The Malaysian Insider. (2014). Albukhary University to shut over student dissatisfaction, management issues. Retrieved from The Malaysian Insider website: https://malaysia.news.yahoo.com/albukhary-university-shut-over-student-dissatisfaction-management-issues-223539589.html

Valikangas, L. (2010). *The Resilient Organization: How Adaptive Cultures Thrive even when Strategy Fails*.

Välikangas, L., & Lewin, A. Y. (2020). The Resilience Forum: A lingering conclusion. *Management and Organization Review*, *16*(5), 967–970.

Vogus, T. J., & Sutcliffe, K. M. (2007). Organizational Resilience: Towards a theory and research agenda. *Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics*, (October 2007), 3418–3422. https://doi.org/10.1109/ICSMC.2007.4414160

Vuori, T. O., & Huy, Q. N. (2016). Distributed attention and shared emotions in the innovation process: How Nokia lost the smartphone battle. *Administrative Science Quarterly*, *61*(1), 9–51.

Wardiwiyono, S. (2012). Internal control system for Islamic micro financing: An exploratory study of Baitul Maal wat Tamwil in the City of Yogyakarta Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management*, *5*(4), 340–352.

Wendler, R. (2016). Dimensions of organizational agility in the software and IT service industry: insights from an empirical investigation. *CAIS*, *39*, 21.

Wessel, J., Bradley, G. L., & Hood, M. (2019). Comparing Effects of Active and Passive Procrastination: A field study of behavioral delay. *Personality and Individual Differences*, *139*(July 2018), 152–157. https://doi.org/10.1016/j.paid.2018.11.020

Westphal, L. E. (2002). Technology strategies for economic development in a fast changing global economy. *Economics of Innovation and New Technology*, *11*(4–5), 275–320.

Yehuda, R., Flory, J. D., Southwick, S., & Charney, D. S. (2006). Developing an agenda for translational studies of resilience and vulnerability following trauma exposure. *Annals of the New York Academy of Sciences*, 379–396.

Yiing, L. H., & Ahmad, K. Z. Bin. (2009). The Moderating Effects of Organizational Culture on the Relationships between Leadership Behaviour and Organizational Commitment and between Organizational Commitment and Job satisfaction and performance. *Leadership & Organization Development Journal*.

Yudianti, F. N. (2015). Internal Control and Risk Management in Ensuring Good University Governance. *Journal of Education and Vocational Research*, *6*(2), 6–12. https://doi.org/10.22610/jevr.v6i2.183

Zabolotnyy, S., & Wasilewski, M. (2019). The concept of financial sustainability measurement: A case of food companies from Northern Europe. *Sustainability (Switzerland)*, *11*(18), 1–16. https://doi.org/10.3390/su11185139

Zaccaro, S. J., Gilbert, J. A., Thor, K. K., & Mumford, M. D. (1991). Leadership and social intelligence: Linking social perspectiveness and behavioral flexibility to leader effectiveness. *The Leadership Quarterly*, *2*(4), 317–342. https://doi.org/10.1016/1048-9843(91)90018-W

Zahari, A., Said, J., & Arshad, R. (2019). Fraud Development and Linkages with Corruption. *Journal of Governance and Integrity*, *2*(2), 96–115. Retrieved from https://jgi.ump.edu.my/index.php/en/current-issue/128-fraud-development-and-linkages-with-corruption-occurrences/file

Zahari, A., Said, J., & Arshad, R. (2020). Organisational Fraud: A discussion on the theoretical perspectives and dimensions. *Journal of Financial Crime*. https://doi.org/10.1108/JFC-04-2019-0040