

POSTGRADUATE RESEARCH COLLOQUIUM 2022

**'THE IMPORTANT OF LOGISTIC AND
MANAGEMENT'**

**FACULTY OF ENTREPRENEURSHIP
AND
BUSINESS**

26 JULY 2022

VIRTUAL



**EDITOR
AHMAD RIDHUWAN ABDULLAH
MOHD ZULKIFLI MUHAMMAD
NURHAIZA NORDIN
NURNADDIA NORDIN
NOOR RAIHANI ZAINOL
SITI ZAMANIRA MAT ZAIB
SALWANI ABDULLAH**

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MOHD ZULKIFLI BIN MUHAMMAD

PREFACE

Entrepreneurship, as the mindset and process needed to create and develop economic activity, blending risk taking, creativity, and/or innovation within a new or existing organization, is very depending on the ecosystems to make it flourish in each organization, institutions, nations, and the world. It has been the ventures; yet the change is needed is not just what is thought but how it is taught in the right environment.

The FKP Postgraduate Colloquium 2022 was held in as virtual on 27 August 2022 at Campus Kota, University Malaysia Kelantan. It was a delightful event with 75 participants, consists of students and lecturers, had many fruitful discussions and exchanges that contributed to the success of the colloquium. 23 papers for field of management and logistic have been successfully presented during the colloquium. The main objective of the colloquium is to be a platform for students to present and publish their works as well as to share their research progress with their colleagues and experts.

All in all, the FKP Postgraduate Colloquium 2022 was very successful. The editors would like to express their gratitude to all participants and the committees that have helped in ensuring the smooth sailing of making the colloquium into a reality.

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Designer
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Editor:
SITI SALWANI BINTI ABDULLAH
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NURNADDIA BT NORDIN
SITI ZAMANIZA MAT ZAID
AHMAD RIDHUWAN BIN ABDULLAH
MOHD ZULKIFLI BIN MUHAMMAD

Faculty of Entrepreneurship and Business
Universiti Malaysia Kelantan
City Campus, Pengkalan Chepa
Kota Bharu, Kelantan
Malaysia

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For information contact: pascasiswazah.fkp@umk.edu.my

eISBN: 978-967-25774-3-0

Edition : October 2022

Published by:

Faculty Entrepreneurship and Business

University Malaysia Kelantan

Kota Bharu, Kelantan

Email: pascasiswazah.fkp@umk.edu.my

Tel: 09-771 7128

Faks : 09-7717252

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Environmental Information Disclosure and Firm Value - Based on the Moderating Effect of Audit Supervision

Xia Fang¹
Noorshella Binti Che Nawi²

¹²Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: xiaf1218@163.com

ABSTRACT

This study aims to examine the effect of environmental information disclosure on firm value moderated by audit supervision. The results show that environmental information disclosure has a significant contribution to firm value, but the moderating effect of audit supervision on the relationship between the environmental information disclosure and firm value is not significant.

Keywords: Environmental information disclosure; Firm value; Audit supervision; China's heavily polluting industries.

INTRODUCTION

The contradiction between China's economic development and environmental pollution is still prominent. The Chinese government has successively introduced various measures to control environmental pollution and continuously strengthen the disclosure of environmental information by enterprises. From the entry into force of the new Environmental Protection Law in January 2015 to the inclusion of the Green Development Plan in the Outline of the Thirteenth Five-Year Plan, all demonstrate the Chinese government's importance to environmental issues. As the leading producer of environmental problems, the disclosure of environmental information by enterprises has become the focus of public attention. Enterprises will disclose environmental information to the outside world to alleviate the pressure caused by environmental protection and comply with relevant national policies. To achieve sustainable development, enhance the value and creativity of enterprises, and focus on solving outstanding environmental problems, it is necessary to improve the pollution discharge standards of enterprises, strengthen the responsibility of polluters, improve the environmental protection credit evaluation, and especially improve the environmental information disclosure of enterprises (Li, 2017). In addition, companies disclose information to information users in the form of accounting statements. However, stakeholders have suffered huge losses due to the increasing number of financial fraud cases in the international community in recent years. The third-party audit can monitor and reduce enterprise management's egoistic behavior and improve the reliability of accounting information. So, we add audit supervision as a moderator variable and study how to audit supervision affects the relationship between environmental information disclosure and firm value.

LITERATURE REVIEW

Resource-based perspectives imply that differences in firm performance are mainly explained by the presence of valuable, rare, and inimitable intangible resources (Hodgson, 1998). Environmental information disclosure helps firms to create intangible resources such as reputational assets (Branco & Rodrigues, 2006). Company's high-quality environmental

accounting information disclosure will have sound social effects and enhance consumers' trust in the company's product cognition, which will drive consumers' purchases. The increase in product sales volume based on the enterprise's original investment can increase the enterprise's profit, improve the profit rate of the company's investment, and thus enhance the firm value (Nor et al., 2016). In addition, environmental information disclosure can increase the liquidity of shares by reducing the information asymmetry between companies and investors, resulting in lower transaction costs. It can increase the long-term value of the company (Plumlee et al., 2015). The quality of environmental information disclosure can enhance firm value by reducing a firm's cost of debt capital (Eliwa et al., 2021; Luo et al., 2019; Yeh et al., 2020) and increasing a firm's expected cash flow (Clarkson et al., 2013). The following hypothesis is proposed:

Hypothesis 1. Environmental information disclosure has a positive effect on firm value.

Enterprises disclose information to information users through financial reports, and third-party audit supervision can monitor and reduce the self-centred behavior of enterprise management and improve the reliability of accounting information. Choosing the "Big Four" accounting firms to audit and supervise the financial reports of enterprises is conducive to ensuring the authenticity and reliability of accounting information, improving the judgment level of creditors on the performance and risks of enterprises, reducing the cost of debt financing, and thus improving firm value (Karjalainen, 2011; Yuan et al., 2013). Therefore, by adding the moderating variable of audit supervision to study the impact of environmental information disclosure on firm value under different audit supervision, hypothesis 2 is proposed.

Hypothesis 2. Audit supervision contributes to the positive relationship between environmental information disclosure and firm value.

RESEARCH METHOD

Data collection

This study selects the listed companies in China's A-share heavy polluting industries from 2015 to 2019 as the research sample, excludes ST, * ST listed companies, and samples with missing values and abnormal financial indicators. Finally, a total of 906 samples were obtained, of which 161 is from 2015, 171 from 2016, 175 from 2017, 190 from 2018, to 209 from 2019. The identification of heavily polluting industries is based on the "Guidelines on EID of the Listed Companies" issued by Ministry of Environmental Protection of China, including industries related to textile, metal smelting, steel, electricity, medicine, etc. The financial data of firms was mainly sourced from the China Stock Market and CSMAR.

Measures

Dependent variable

The firm value refers to the total value of the listed companies in the stock market in the entire stock market. For ease of calculation, the natural logarithm of the total market value of the company's stock is taken as the measurement standard.

Independent variable

Environmental information disclosure (EID) adopts the content evaluation score (C value) in the "Blue Book of Social Responsibility Report of A-share Listed Companies" issued by Runling International Public Welfare Consulting Co., Ltd.

Mediating variable

The company was audited by the Big Four accounting firms (PwC, Deloitte, KPMG, Ernst & Young), and assigned a value of 1; otherwise, assigned a value of 0.

Control variables

This study selects the factors that may affect the firm value adopted by many scholars as control variables. Including asset-liability ratio, net profit ratio of total assets, cash flow ratio of operating activities, growth rate of operating income, and shareholding ratio of the largest shareholder. The specific variable design is shown in Table 1.

Table 1: Measurement of Variables

Variables types	Variables	Code	Calculation method
Dependent variables	Firm Value	FV	whole company stock market value as measured by its natural logarithm
Independent variables	Environmental Information Disclosure	EID	Runling database content evaluation score C value
Moderating Variables	Audit supervision	Big4	Audited by a Big Four accounting firm, assigned a value of 1; other, assigned a value of 0
Control variables	Asset-liability ratio	Lev	liabilities divided by the company's total assets
	Rate of Return on Total Assets	Roa	Net profit divided by average balance of total assets
	Operating cash flow ratio	Ocf	Cash flow from operating activities divided by total assets
	Operating income growth rate	Grow	(This year's operating income - last year's operating income business income) / last year's operating income
	ratio of independent directors	Indep	Number of independent directors divided by number of directors
	Shareholding ratio of the largest shareholder	Top1	Shareholding ratio of the largest shareholder

Construction of Models

To investigate the special influence of environmental information disclosure on firm value, the moderating effects of audit supervision. The following models are developed.

$$FV = \alpha_0 + \alpha_1 EDI + \alpha_2 Lev + \alpha_3 Roa + \alpha_4 Ocf + \alpha_5 Grow + \alpha_6 Indep + \alpha_7 Top1 + \epsilon \quad (1)$$

$$FV = \beta_0 + \beta_1 EDI + \beta_2 Big4 + \beta_3 EDI * Big4 + \beta_4 Lev + \beta_5 Roa + \beta_6 Ocf + \beta_7 Grow + \beta_8 Indep + \beta_9 Top1 + \epsilon \quad (2)$$

RESULTS AND DISCUSSION

Descriptive statistics

Descriptive statistics of main variables are presented in Table 2. This study collected 906 samples of listed companies in China's A-share heavily polluting industries from 2015 to 2019. The results show that the average FV is 23.86, the maximum value is 28.57, the minimum value is only 20.81, and the standard deviation is 1.276, indicating that there are some differences in the firm value of the sample companies. The average value of EID is 18.70, the maximum value is as high as 41.66, the minimum value is only 4.922, and the standard deviation is 6.202, indicating that there is a big difference in the quality of environmental information disclosure of different companies, which is closely related to the fact that the environmental information disclosure system has not yet formed a mandatory norm. The mean value of Big4 is 0.149, which is much lower than 0.5, indicating that among the sample companies, more companies choose non-Big Four accounting firms.

Table 2: Descriptive Statistics Example (N =906)

VARIABLES	M	SD	Min	Max
FV	23.86	1.276	20.81	28.57
EID	18.70	6.202	4.922	41.66
Big4	0.149	0.356	0	1
Lev	0.456	0.199	0.0569	0.892
Roa	0.0453	0.0582	-0.247	0.229
Ocf	0.144	0.153	-0.492	0.715
Grow	0.135	0.329	-0.580	2.412
Indep	37.31	5.235	23.08	57.14
Top1	39.13	15.75	9	75.26

Note. M = Mean, SD = Standard Deviation.

Correlation analysis

From Table 3, it can be seen that the independent variable environmental information disclosure and the dependent variable firm value are significantly positive correlated at a significant level of 1%, with a correlation coefficient of 0.412, which is consistent with expectations. The mediating variable audit supervision and the dependent variable firm value are significantly positive correlated at a significant level of 1%, with a correlation coefficient of 0.428. Furthermore, none of the VIFs exceeds the maximum threshold of 10, revealing that there are no significant multicollinearity issues here.

Table 3: Variable correlations and VIFs.

	FV	EDI	Big4	Lev	Roa	Ocf	Grow	Indep	Top1
FV	1								
EID	0.412***	1							
Big4	0.428***	0.298***	1						
Lev	0.437***	0.105***	0.073**	1					
				-					
Roa	-0.017	0.072**	0.011	0.439***	1				
Ocf	0.197***	0.061*	0.030	0.005	0.210***	1			
Grow	0.022	0.002	-0.007	0.016	0.213***	-0.023	1		
						-			
Indep	0.030	-0.004	0.061*	-0.020	-0.072**	0.094***	0.004	1	
							-		
Top1	0.401***	0.277***	0.196***	0.146***	-0.005	0.094***	0.033	0.055*	1
VIFs		1.18	1.12	1.33	1.44	1.08	1.08	1.02	1.13

*** p<0.01, ** p<0.05, * p<0.1

Regression results

In model (1) of Table 4, the regression coefficient of environmental information disclosure quality is 0.058, and the impact on firm value is significantly positive at the level of 1%. For companies in heavily polluting industries, improving the quality of environmental information disclosure positively affects firm value. Hypothesis 1 is verified. Asset-liability ratio, net profit ratio of total assets, the cash flow ratio of operating activities, and the shareholding ratio of the largest shareholder have all passed the significance test and are significant at the level of 1%. The positive promotion of Roa is the largest, with a coefficient of 2.816. The effect of the asset-liability ratio is also significant, with a coefficient of 2.749. The relationship between operating income growth rate and enterprise value failed to pass the significance test.

The moderating variable of audit supervision is added to the model (2), and the result show that the regression coefficient of EID is 0.04, which is significant at the 1% level. The model (2) adds EID*Big4 to study the moderating effect of the relationship between EID and FV. The results show that the EID is significantly positively related to FV at the 1% level. This means that higher-quality environmental information disclosure is conducive to enhancing firm value. Big4 and FV are positively correlated at the 1% statistical level. This means that higher quality audit supervision is conducive to the improvement of firm value. The cross-item EID*Big4 is positively correlated with FV, but this result is not significant. This means that audit supervision does not have a significant moderating effect on the environmental information disclosure and firm value. It may be that the overall quality of environmental information disclosure in the sample companies is low and that the disclosures are mostly non-financial and textual, with less financial and quantitative information, so the moderating effect of audit supervision is not significant.

Table 4: Multiple linear regression analysis

VARIABLES	(1) FV	(2) FV
EID	0.058*** (10.65)	0.040*** (6.57)
Big4		0.766*** (2.74)
EID*Big4		0.012 (0.98)
Lev	2.749*** (14.71)	2.714*** (15.27)
Roa	2.816*** (4.24)	2.747*** (4.43)
Ocf	1.097*** (5.02)	1.092*** (5.34)
Grow	-0.008 (-0.08)	0.002 (0.02)
Indep	0.012* (1.86)	0.007 (1.29)
Top1	0.020*** (9.20)	0.017*** (8.41)
Constant	20.027*** (72.96)	20.494*** (78.01)
Observations	906	906
R-squared	0.427	0.501
F test	0	0
r2_a	0.423	0.496
F	95.70	99.90

*** p<0.01, ** p<0.05, * p<0.1

CONCLUSIONS

The improvement of the quality of environmental information disclosure has a significant role in promoting firm value, which shows that environmental information disclosure should not be regarded as a cost. It should be considered an essential means of value creation and competitiveness enhancement. By disclosing high-quality environmental information, enterprises can reduce the information asymmetry with investors, show a positive image of the company fulfilling social and environmental responsibilities, gain a good reputation, and be recognized by all sectors of society, thereby increasing the economic benefits of the company, making it easier for enterprises to obtain financing from the capital market, and reducing the cost of capital, thereby enhancing the firm value. Through the previous research and analysis, this paper puts forward the following policy suggestions: First, relevant government departments should further regulate the criteria and evaluation standards of environmental information disclosure, improve the quality of environmental information disclosure, and enhance the value effect of environmental information disclosure. In addition, through market-oriented means, companies are encouraged to accelerate their awareness of fully disclosing environmental information and improve the quality of disclosure, which will not harm their interests. Still, it will help enhance enterprises' value and make them more proactive in cooperating with

environmental information disclosure. Realize the transition from passive voluntary disclosure to active mandatory disclosure.

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Correlating Training and Development (T&D) and Artificial that Lead to Organizational Sustainability (OS): A Conceptual Study.

Mohammed Kamruzzaman¹

Naresh Kumar²

P Yukthamarani³

Syed Ali Fazal⁴

¹Faculty of CBA, International University of Business Agriculture and Technology

^{2&3}Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan

⁴Faculty of Business Administration, University of Science and Technology Chittagong

Correspondence email-mkamruzzaman@iubat.edu

ABSTRACT

Training and development is indispensable strategic tool for enhancing employee performance. With AI powered training can reap the benefits of automated, personalized, intuitive and data-based learning modes, thus fostering continuous learning across the organization and that can maximize employee performance throughout the employees' careers while helping the organizational sustainability. This conceptual paper intended to explore the existing literature on training and development to enhance the knowledge and understanding in this area and established a positive relation between training and development(T&D) and artificial intelligence (AI) for sustainable employee performance (SEP) that lead to organizational sustainability (OS).

Keywords: Training and development; Artificial intelligence; Sustainable employee performance; Organizational sustainability.

INTRODUCTION

Over the past few years, companies have become more committed to sustainability-related activities (Cinzia Battistella et al., 2021). Sustainable human resource management (SHRM) refers to the concept which combines the idea of sustainability with the soft approach to human resources (Piwowar-Sulej, 2020). Employee training is often viewed as essential for incorporating performance management practices in the organizations, but few studies directly link training programs to subsequent changes in organizational outcomes (Spreen et al., 2020). However, more often than not automation affects a subset of workers' tasks, and workers in these jobs may require training to adapt to the task restructuring that is caused by automation, i.e., automation may even increase the need for training(The Effect of Declining Unemployment Benefits on Transitions to Employment, 2022). The link between individual capability, culture (the way we do and talk about things), and organizational capability is taken by many experts to be the true engine that delivers sustainable competitive advantage. Learning and development will play an important role in helping to shape our future society (Cai et al., 2020). Training and development (T&D) is described as a formal process of making efforts that increase the organizational performance and satisfy its workforce through different programs and educational training that improve their skills (Wasim Syed et al., 2020).

There is still no single generally applicable definition used to disclose organizational performance regarding sustainable development. (Molnar & Mulvihill, 2003) propose the term "sustainability focused organizational learning" (SFOL) to describe the early experience of

companies that attempt to pursue sustainability or the triple bottom line while making substantial changes to their organizational cultures (Zgrzywa-Ziemak & Walecka-Jankowska, 2021). Support the continuous development of employees' skills and qualifications as well as their initiatives to improve the business's processes and products. Among other things, the processes of personnel selection and development, formal training and the creation of learning conditions in daily work, as well as the motivation and provision of (both temporary and material) resources for the development of individuals and their involvement in the improvement of the organization are vital. Skinner's theory of reinforcement emphasizes the learning behavior of a person and suggests that the learner will repeat behavior that is attached with a positive outcome or result. This theory suggested that the training and development programs should be aligned with the organizational objectives and a positive outcome should be expected with such training programs (Manzoor et al., 2019).

While there is a growing effort towards AI for Sustainability (e.g. towards the sustainable development goals) it is time to move beyond that and to address the sustainability of developing and using AI systems (van Wynsberghe, 2021). Artificial Intelligence (AI) has played a substantial role in the response to the challenges posed by the COVID-19. It is becoming clear now that the way AI is currently used will have a profound impact on the way AI will be viewed and used going forward (Adadi et al., 2021).

OBJECTIVES OF THE STUDY

The general objective of this study is to explore the positive impact of the involvement of AI in the employee training process for sustainable employee performance.

The specific objectives are-

1. Exploring the importance of AI in the training process for sustainable employee performance
2. Investigate the positive impact of AI in the employee training process.
3. Measure the impact of adoption of AI in the employee training process for sustainable employee performance.
- 4.

PROBLEM STATEMENT

Training is vital for employee performance, but sustaining the performance is also similarly important. The conventional training program or process is not enough for sustainable employee performance. So, now it is time to think about involvement of AI with the training process with implementation of automated, personalized, intuitive and data-based learning modes.

EMPLOYEE TRAINING & DEVELOPMENT (T&D) FOR ORGANIZATIONAL SUSTAINABILITY

Training and development is a crucial concern for policymakers because of its importance in organizational success. Most firms invest heavily in training and development programs to improve organizational performance. Training delivery is no stranger to practitioners or scholars

in human resource development (HRD) and performance improvement. Among the learning and development problems that often face organizations, supporting learners to use their new knowledge and skills to improve performance is an ongoing challenge. Research shows that organizations must address the cognitive, psychological, behavioral, and cultural aspects of job performance to enhance training applications. Strategies that positively impact training delivery include practices that affect learner characteristics such as motivation and self-efficacy, training designs that align content with work tasks, and work environments that provide opportunities for on-the-job practice (Othayman et al., 2020).

IMPORTANCE OF TRAINING

The link between individual capability, culture (the way we do and talk about things), and organizational capability is taken by many experts to be the true engine that delivers sustainable competitive advantage. Learning and Development will play an important role in helping to shape our future society (Cai et al., 2020). Training is a type of activity, which is planned, systematic and its results enhance the level of skills and knowledge that are necessary to perform work effectively. Training is mainly concerned with the improvement and upgrade of the skills and knowledge of the employees, which ultimately adds into the job performance (Ahmed et al., 2013). Training is one way of increasing an individual's productivity. In the training process, employees acquire technical skills, interpersonal skills and solid knowledge in order to perform their jobs efficiently and effectively at the workplace and lack of ongoing training programs leads to lower performance of employees (Sendawula et al., 2018).

Organizations find it difficult to stay competitive in recent global economy. Importance of employee development program is growing for the organizations those pursuing to receive an advantage among competitors. Employees are esteemed resource of the organization and success or failure of the organization relay on the performance of employees. Therefore, organizations are financing large amount on employee training and development programs. Furthermore, in training program it is supportive for companies to emphasis on knowledge, expertise and ability of employees (Jehanzeb & Bashir, 2013). There is a positive attitude towards the identification of training needs through the developers of training programs, the selection of employees and the design of training programs (Al-Mzary, Al-rifai, & AlMomany, 2015). Human Resources Management literature regards training as the blood stream of any organization because the success of an organization to achieve its objectives and goals heavily highly depends on its workforce. For this reason, organizations should invest in employees' training in an effort to enhance their performance and that of an organization (Motlokoa, Sekantsi, & Monyolo, 2018). However, according to (Mira & Odeh, 2019a) training has considered major issue for many organizations in all sectors, as a result of the change of standards of performance in these organizations, which are no longer limited to the mere provision of service or product, but it went beyond that by ensuring the provision of quality to meet customer's needs and wishes therefore training has become an important issue and is the focus of many researchers and specialists in the field of modern management.

TRAINING AND EMPLOYEE'S PERFORMANCE

Training can be considered as one of the important factors which is correlated to the performance of an employee. In the existing organizational setting of Bangladesh, employees usually have a low level of skills that lead them to perform poorly on their assigned activities because of receiving inadequate training (Mahmud et al., 2019). Training plays a key role in the development of employee's performance. The scope of training is firstly to overpass the gap between requirements of the job and current qualification of an employee. Employee's

performance best at that time they were properly trained (Afroz, 2018). Moreover, training is one of the major keys to improve the level of employee's work efficiency and the performance which leads to higher productivity of the firms. In respect of empirically investigation of employee training and employee performance, many researchers have found a positive inflectional role of employee training into employee performance (Mira & Odeh, 2019b). It is obvious that the company or the organization must invest on effective training on their employees in order to increase the job performance. The Human Resource Management is the research area, which conducted many research and surveys especially on the factors of training and developing programs on Employees performance (Ahmadi, 2019).

TRAINING NEEDED IN MODERN ORGANIZATIONS

Today's knowledge economy very much depends on the value created by the human resource of an organization (Rozario et al., 2019). Skills refer to the level of performance of an individual on a particular task or the capability to perform a job well which can be divided into technical elements and behavioral elements. Knowledge, Skills, and attitudes are the most essential ingredient for the efficient conduct of business through the human resources of an organization. But the impact of these valuable ingredients is often reduced by lack of an effective training program (Kamruzzaman & Ahmad, 2018). Technical elements measure "HARD" technical skills while the communication elements measure "soft" skills which include the attitudes and approaches applicants take to their work, such as the ability to collaborate on team projects (Patacsil & Tablatin, 2017). Technical skills are no longer enough for workers to compete in this highly competitive global work environment. Soft skills are of paramount importance. The soft skills training program may be used to target disadvantaged individuals who are unemployed or living in poverty. Improving the soft skills of disadvantaged individuals may help them gain and retain suitable employment (Johnson et al., 2017). Employers are looking for people who can offer hard skills as well as soft skills. According to the literature review, significant evidence demonstrated that soft skills are competencies that can help an individual better meet the needs of a particular job and help an individual advance in his or her career (Meeks, 2017). Employers have blamed and criticized higher education for not preparing students adequately for the current labor market, and thus continuously highlighting students' lack of transferable skills. Soft Skills represent a dynamic combination of cognitive and meta-cognitive skills, interpersonal, intellectual and practical skills. Soft skills help people to adapt and behave positively so that they can deal effectively with the challenges of their professional and everyday life (Succi & Wieandt, 2019).

Changing technologies and competition in the field of information and communication technology (ICT) are challenging the learning of individual workers and teams alongside and through work. Organizations call for employees' autonomy and self-directedness executed by agile operations and low hierarchies, where learning is also increasingly the responsibility of the individuals and teams themselves and occurs in practice without strong control of the organization. Therefore, the multidimensional concept of self-directed learning becomes essential in the context of learning at work (Lemmetty & Collin, 2020). By choosing the right type of training, we ensure that our employees possess the right skills for our business, and the same need to be continuously updated in the follow up of the best and new HR practices. In the learning organization this approach aligns all learning activities with the corporate business strategy, and its focus is on developing competencies (Vinesh, 2019).

TRAINING OUTCOME EVALUATION

Training evaluation refers to an attempt to obtain relevant information on the effects of a training program. It is considered an essential aspect of a training event to be able to reflect, analyze, and improve its effectiveness and efficiency (Neendoor, 2020). One of the most critical parts of implementing training programs is accurately assessing their impact; to assess programs requires using a suitable method. Here, in addition to measuring learners' satisfaction with self-assessment, meaningful assessment must measure input (learners and teachers), training process (educational programs, assessment methods, and facilities), and output (behavior of participants) (Heydari, Taghva, Amini, & Delavari, 2019) Managing evaluation data requires the institution to employ deliberate strategies to monitor signals in real-time and aggregate data so that informed decisions can be made (Ragsdale et al., 2020).

There are several types of training evaluation methods to measure the effectiveness of enterprise training, such as surveys, post-training quizzes, participant case studies, and official certification exams.

THEORETICAL PERSPECTIVE AND CONCEPTUAL FRAMEWORK

SIP MODEL:

For individuals who wish to observe an intuitive e-learning interface that facilitates online and personalized learning, the future needs of training are to be met in the "SIP" model (Maity, 2019). The "SIP" model refers to an AI tool that allows for better seamless knowledge learning alignment, human-like conversational communication, and personalized training needs fulfillment. The benefits of adopting this model include easy access to learning models whenever and wherever employees need them, more intuitive and natural AI-based training programs through an intelligent user interface communication displays, and the ability to identify individual learning characteristics of trainees and reduce human bias.

1. Seamless. Knowledge management practices are already being implemented in some organizations, considering a large number of training materials and data sectors that have been accumulated in organizations. But what is needed is at the same time to make these data and learning modules easily accessible to employees where they need them. Organizations can leverage individual learning habits and preferences to design smarter platforms for delivering training content. AI allows for seamless knowledge learning interfacing (Zahra et al., 2014).

2. Intuition. Training practices move from the classroom to the mobile screen. Without the instructor, the model needs to be intuitive and adaptable to the user. For many organizations, the expectation is to make training programs more intuitive and closer to natural expectations. Artificial intelligence can play a key role in filling this gap. Adopting artificial intelligence for training, it can be in the form of human-like conversations and intelligent user interfaces for on-screen communication. The integration of artificial intelligence and virtual reality can allow people to experience live visual simulations of them completing work with a real-time training experience (Taylor, 2017).

3. Personalization. Without knowledge democracy, the further advancement of knowledge and innovation is severely constrained (Carayannis & Campbell, 2021). People expect more from knowledge democracy. In the late nineteenth and early twentieth centuries, training plans were distributed to a group of professionals. But present needs have changed to the point where they are designed for each employee individually, considering learner characteristics. AI has the

ability to recognize learning characteristics and to design training programs according to these characteristics. AI allows for less humankind bias and intervention in identifying training needs and explaining individual employee learning styles.

Even when designing training programs, whether offline or online, it could be as intuitive and personalized as possible. If all three features are present at the same time, the individualized training needs of future employees can be met. By adopting AI-based training, the requirements of SIP can be achieved. The training changes brought about by AI are therefore beneficial, both for the individual and the organization. AI technology should be a key area of investment for HR practitioners, as the technology has the potential to take HRM to new levels (Chen, 2022).

CONCEPTUAL FRAMEWORK

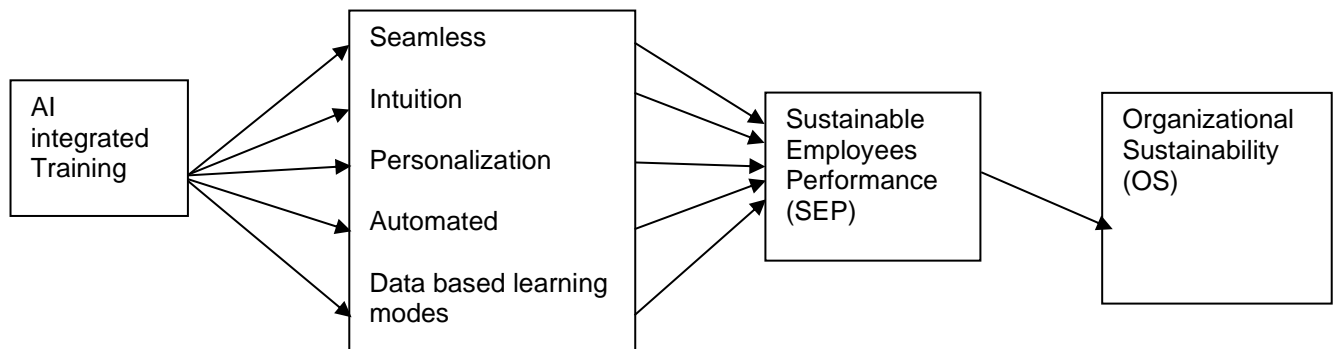


Figure 1: Conceptual model for present study

VARIABLES AND MEASURES

Dependent Variable: Organizational Sustainability (OS)

Sustainable development goals (SDGs) have become increasingly important for today's firms as they build sustainability strategies that integrate SDGs into their core activities. However, addressing SDGs through partnerships is not straightforward. For firms, contributing to SDGs through alliances and partnerships requires building environmental capabilities and embracing new value frames; in other words, going through the complex process of inter-organizational learning.

Dependent Variable: Sustainable Employees Performance (SEP)

Job performance has been a significant area in human resource management practices. Job performance is the level of an employee's contribution to the effectiveness of a firm concerning the specific performance benchmarks associated with his/her job. Sustainable individual task performance and relational development were considered significant measures of SEP (Min et al., 2020).

Independent Variable: AI integrated training

Seamless

Skill and knowledge management practices are already being implemented in some organizations, considering a large number of training materials and data sectors that have been accumulated in organizations. But what is needed is at the same time to make these data and learning modules easily accessible to employees where they need them. Organizations can leverage individual learning habits and preferences to design smarter platforms for delivering training content.

Intuition

For many organizations, the expectation is to make training programs more intuitive and closer to natural expectations. Artificial intelligence can play a key role in filling this gap. Adopting artificial intelligence for training, it can be in the form of human-like conversations and intelligent user interfaces for on-screen communication.

Personalization

People expect more from knowledge democracy. In the late nineteenth and early twentieth centuries, training plans were distributed to a group of professionals. But present needs have changed to the point where they are designed for each employee individually, considering learner characteristics. AI has the ability to recognize learning characteristics and to design training programs according to these characteristics.

Automated

Human knowledge, services and robotics applications are the most significant factors influencing automation and AI implementation. Industry practitioners and researchers could apply the proposed framework to develop sustainable strategies for implementing and managing automation and AI.

Data based learning modes

Data-based training system I an employee training expert system and applied rule-based expert system technology to infer the learning type for employees. Moreover, data based learning uses association rule mining to find training strategies and learning map for personal learning. Besides, this system provides different training materials for employees according to their learning aptitudes, records and occupations.

Research Hypotheses

The hypotheses of the current study are as follows:

Hypothesis 1: There is significant relationship between AI integrated training and sustainable employee performance.

Hypothesis 2: There is a significant relationship between sustainable employee performance and organizational sustainability.

CONCLUSION AND EXPECTED CONTRIBUTIONS

The emerging knowledge economy and technological interventions are changing the existing job profiles, hence the need for different skillsets and technological competencies. The organizations thus need to deploy strategic manpower development measures involving up-gradation of skills and knowledge management. Inculcating requisite skills requires well-designed training programs using specialized tools and virtual reality (VR). In addition, employees need to be supported in their evolving socio-technical relationships, for managing both positive and negative outcomes.

Considering the importance of investing in cutting-edge technologies, AI is viewed as driving future industries' creation. Consequently, firms and governments worldwide have made significant efforts to invest in AI; hence, attracting extant literature to its discussions. While studies in the technical disciplines tended to focus on the development of AI for specific HRM functions, studies from the other disciplines tended to focus on the consequences of AI on HRM, jobs, and labor markets. Most studies in all categories were relatively weak in theoretical development. We therefore offer AI integration with training for sustainable employee performance (SEP) and organizational sustainability (OS).

ACKNOWLEDGEMENTS

This work is a part of my PhD program in the field of human resource management. I acknowledge the support of my PhD supervisor and co-supervisor and I forward sincere thanks to my co-authors for their endless guidance and valuable assistance to enhance this manuscript.

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Factors Influencing Consumer Behaviour of Brand Aversion

Wu Ruihui¹
Suhaila Abdul Kadir²
Nurul Ashykin Abd Aziz³

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia.
Correspondence email: a20e0276f@siswa.umk.edu.my

ABSTRACT

This study aimed to analyze the influence of consumer behaviour of brand aversion. The variables involved in this study include seven variables such as employee disrespectful behavior, Interaction fairness, negative emotions, negative word of mouth, self-esteem and product type, as well as control variables such as demographic characteristics. Brand avoidance, as an important aspect in the field of anti-consumption, has a strong operational guiding significance for the practice of enterprises due to its targeting at a particular brand, which has attracted the interest of more and more scholars and obtained valuable research findings. However, due to the relatively new concept and late start, the research results in the field of brand avoidance are still very limited, there are few empirical studies on influencing factors, the influence mechanism is not fully revealed, the research conclusion is not clear, and the effect research is blank, etc., so the theoretical research on brand avoidance needs to be enriched. The result showed employee disrespectful behavior, negative emotions, negative word of mouth and self-esteem directly positively influences brand avoidance. Interaction fairness negatively affects brand avoidance and Product type moderates the relationship between employee rudeness and brand avoidance

Keywords: Consumer Behaviour, Brand Aversion, Brand Avoidance

INTRODUCTION

Brand avoidance will cause trouble to the selection and positioning of the target market of enterprises, destroy the brand relationship, damage brand equity, and thus lead to serious losses of enterprises. In addition, brand-averse consumers may spread negative word of mouth about the brand and influence more consumers with the help of new social media. It may also produce brand switching behavior, and may even lead to consumer boycott, customer retaliation and other highly destructive behaviors, which will bring immeasurable harm to the enterprise. The prevalence of consumer brand avoidance is in sharp contrast to the weakness of enterprises. Brand avoidance is just a visible iceberg floating on the surface -- a corner. The real reason behind it is worth digging deeply. "What factors lead to consumers' brand avoidance behavior, how to better understand consumers' behavior rules and brand decision-making psychology, reverse consumers' brand avoidance behavior, and create and retain customers" has become a meaningful research topic.

LITERATURE REVIEW

The purpose of business is to "create customers". Consumers are the main body of the market, which determines the product innovation, operation mode and competitive chip of merchants. Research on consumer behavior is the core of enterprise marketing and market research. Business managers and academics are actively discussing how to better understand consumer behavior in order to win over consumers. Since the 1960s, the fields of brand choice and brand loyalty have been the research hotspots of consumer behavior, and a wealth of research results have been obtained, providing important theoretical basis and effective practical guidance for enterprises. However, existing theories based on the "Approach consumption" paradigm cannot effectively explain the reasons for the failure of some enterprises in management practices (such as the Coca-Cola and Xiaomi phone examples mentioned above). (Banister E N, Hogg M K, 2004)

Scholars have reflected and realized that the root of the problem is that traditional studies on consumer behavior almost always understand consumer behavior from the positive side, while few studies reveal consumer behavior from the opposite side (why consumers do not choose a certain brand or product). "Just as doctors judge health and disease for different reasons, consumers choose and refuse to choose for different reasons," only from the positive perspective of "why consumers choose" to study consumer behavior will limit the comprehensive and in-depth understanding of consumers and their behavior. In recent years, scholars have gradually recognized this problem, arguing that "knowing what consumers don't want is as valuable as knowing what they do want." It is extremely necessary to conduct a comprehensive, in-depth and systematic study on the rules and characteristics of consumer purchasing behavior and the influencing factors and forming mechanism of brand decision. (John A, Klein J, 2003)

Some scholars have begun to shift from traditional positive research to its opposite, filling the theoretical gap in the field of consumer research. Based on the "paradigm of avoiding consumption", it studies why customers do not take the initiative to consume, and understands and reveals consumers' psychology and behavior from the perspective of refusing consumption. This kind of research is called anti-consumption research. Combining theories of economics, political science, psychology, sociology and other disciplines, scholars have made beneficial exploration of anti-consumption behavior from multiple perspectives, trying to open up new ideas for understanding consumer psychology and behavior. Anti-consumption research mainly includes brand avoidance, consumer boycott, brand antagonism loyalty, minimalist consumption and unsatisfied withdrawal. (Keller L, Brexendorf O, 2018)

RESEARCH METHOD

This paper adopts the empirical research method. Empirical research is a widely used method in social sciences, and it is believed that the causality between objective laws and predictive variables can be explained through scientific measurement and analysis. The idea of empirical research method is to put forward research hypotheses in advance and then test them. If the result of data analysis is consistent with the hypothesis proposed in advance, the null hypothesis is considered to be supported. If the data analysis results are inconsistent with the pre-constructed hypothesis, the original research hypothesis will be rejected.

This paper follows the basic procedure of empirical research. Firstly, the research objectives and questions are established, and the core issue of "Factors Influencing Consumer Behaviour of Brand Aversion" is proposed on the basis of literature review. Then, the problem is

conceptualized, and three specific research questions are established: "Research on the impact of employee rudeness on brand avoidance and negative word of mouth", "Research on the impact of avoidance groups on brand avoidance" and "Research on the impact of uniqueness demand on brand avoidance and brand choice". In the specific research, the concept model is constructed by logical deduction and induction and summary, and the hypothesis is put forward and verified. In the process of model checking, the first step is to operationalize the constructed concepts and turn them into measurement models. The second step is to conduct detailed analysis and plan on the selection of research samples and collect empirical data by means of questionnaire survey. The third step is to process the data with statistical software and get the result of data analysis.

RESULTS AND DISCUSSION

Research Design

In this study, except for category variables (product type and demographic characteristics variables), Seven Likert scale was used, with "1" to "7" indicating the degree from completely disagree to completely agree. As for the selection of the initial scale, this study tries to use the classical scale with a high citation rate in domestic and foreign literature and good reliability and validity after repeated empirical tests. In this study, first of all, a Chinese management teacher teaching in an English-speaking country was asked to translate all the questions into Chinese, and then two graduate students proficient in both Chinese and English were asked to translate the Chinese back into English. And then item can be accurately understood, can measure the real intention of subjects, the issues of whether there is a too sensitive item to marketing, service management and human resource research field were two of three experts and service enterprise management (human resources manager and the manager - a) consult, adjustment is not proper, make the language more refined, item more accurate; Finally, the consensus questionnaire will be used for a pre-survey. By testing the predictive reliability and validity of the pre-survey data, the items with poor reliability and validity were eliminated, and on this basis, the measurement items of the formal survey were formed.

Results and discussion

Hypothetical	Content	Result
H1	Employee disrespectful behavior directly and positively influences brand avoidance	nonsupport
H2	Brand avoidance positively affects negative word of mouth	support
H3	Employee disrespectful behavior negatively affects interaction fairness	support
H4	Interaction fairness negatively affects brand avoidance	support
H5	Employee disrespectful behavior positively affects negative emotions	support
H6	Negative emotions positively affect brand avoidance	support
H7	Self-esteem positively moderates the relationship between employee rudeness and negative emotions	support
H8	Self-esteem positively moderates the relationship between employee rudeness and brand avoidance	support

H9	Product type moderates the relationship between employee rudeness and interaction fairness	support
H10	Product type moderates the relationship between employee rudeness and negative emotions	nonsupport
H11	Product type moderates the relationship between employee rudeness and brand avoidance	nonsupport

The study found that:

In the model with mediating effect, although the direct effect of employee rudeness on brand avoidance is not significant, it has a positive effect on brand avoidance through the complete mediation of interactive justice and negative emotions. Brand avoidance has a significant positive impact on negative word of mouth. The influence of brand avoidance on negative word of mouth has not only direct effect but also mediating effect. From the direct effect, brand avoidance has a significant positive impact on negative word of mouth. From the intermediary effect, avoid the existence of brand make "interactive fair - brand to avoid negative word of mouth", negative emotions - brand to avoid negative word of mouth ", "staff rude behavior - interactive fair - brand to avoid negative word of mouth" and "staff rude behavior, negative emotion, evading - negative word of mouth" brand of the path are obtained the effective support.

Interactive justice plays a significant mediating role in the influence of employee rudeness on brand avoidance. At the same time consider staff rude behavior and avoid the impact of interactive fair on brand, data results show that the interactive fair has a significant negative influence on brand to dodge, employees no significant influence on brand avoid rude behavior, Sobel and Bootstrap test results also show that interaction between the offensive behavior and brand to evade employees fair intermediary role. Employee disrespectful behavior has an impact on brand avoidance through the path of "employee disrespectful behavior - interactive justice - brand avoidance". Through the path analysis of the WOM effect, it is found that the path of "employee disrespectful behavior - interaction fairness - brand avoidance - negative WOM" has been effectively supported.

Negative emotions play a significant mediating role in the influence of employee rudeness on brand avoidance. Consider staff rude behavior and negative emotions influence on brand to evade, data, according to the results of negative emotion has a significant negative influence on brand to dodge, staff rude behavior had no significant influence on brand around, Sobel and Bootstrap test results also show that interaction between the offensive behavior and brand to evade employees fair has a mediating role. Employee disrespectful behavior influences brand avoidance through the path of "employee disrespectful behaviors-negative emotions-brand avoidance". There is no significant difference between the mediating effect of interactional justice and the mediating effect of negative emotion on the relationship between employee disrespectful behavior and brand avoidance.

Self-esteem has a significant moderating effect on the impact of employee rudeness on interactive justice, the impact of employee rudeness on negative emotions, and the impact of employee rudeness on brand avoidance. At both high and low self-esteem levels, employee rudeness has a significant negative impact on interactive justice, and there is a significant difference between the effects at the two levels, that is, consumers with high self-esteem will perceive the same rudeness as more unfair. At both high and low self-esteem levels, employee rudeness has a significant positive impact on negative emotions and brand avoidance, and the difference between the effects of the two levels is significant. Self-esteem plays a significant

moderating role between employee rudeness and negative emotions, and between employee rudeness and brand avoidance. Faced with the same disrespectful behavior, consumers with high self-esteem are negative.

Product type has a significant moderating effect on the relationship between employee rude behavior and interactive justice, but has no significant moderating effect on the relationship between employee rude behavior and negative emotions, and between employee rude behavior and brand avoidance. Faced with the same rudeness, consumers of ordinary products perceive more unfairness. In both luxury and ordinary products, employee rudeness has a significant negative impact on negative emotions, but there is no significant difference in the effect between the two groups, and the product type has no significant moderating effect between employee rudeness and negative emotions. In other words, in the face of employees' rude behavior, both the luxury group and the ordinary product group, consumers will perceive unfairness and show negative emotions. For the luxury category group, consumers' perception of unfairness is weaker than that of ordinary product types, which may be due to the established cognition and psychological expectation of consumers' "lofty" brand cognition of luxury products and the "pretending to be arrogant" attitude of luxury service personnel. However, consumers' negative emotions and willingness to avoid brands did not differ with different types of products. Perhaps, with the improvement of people's living standards, luxury goods have become more popular and entered the daily consumption decisions of ordinary consumers, and consumers no longer have more feelings of worship for luxury goods. Whether it is a common product or a luxury product, consumers want to enjoy a pleasant service experience rather than the cold or rude treatment of employees. The research results suggest that no matter what type of service enterprises should pay attention to customer emotions and guide employees to pay more attention to customer emotions.

CONCLUSIONS

By sorting out relevant literature on brand avoidance, this research finds that many institutional issues of brand avoidance have not been thoroughly discussed. This study in service fairness theory, emotional contagion theory, balance theory, the theory of self - cause and the image theory, on the basis of theory, uses the method of empirical research from staff level, group level and individual features three aspects respectively to build model and validate assumptions, reveals the antecedent of brand around the mechanism of "black box", and discusses the brand to evade and results The relationship of quantities. The main results of the data analysis are summarized and the following research conclusions are drawn.

Employee rudeness has an impact on brand avoidance through the dual mediation of interactive fairness and negative emotions; Interaction justice and negative emotions play a significant mediating role in the influence of employee rudeness on brand avoidance. Self-esteem plays a moderating role in the influence of employee rudeness on interaction justice, negative emotions and brand avoidance. Brand avoidance has a significant positive effect on negative word of mouth. Product types are fair in employee disrespectful behavior and interaction. It has a significant moderating effect on the relationship between employee disrespectful behavior and negative emotions, and it has no significant moderating effect on the relationship between employee disrespectful behavior and chip avoidance.

Avoidance groups have positive effects on brand avoidance through non-ego-causality and ego-brand connection; Non-ideal ego-causality is a complete mediating variable of group avoidance and self-brand association, while self-brand causality is a partial mediating variable of non-ideal Ego-causality and brand avoidance. Brand involvement has a negative moderating effect on the relationship between avoidance group and brand avoidance, avoidance group and non-ideal

ego-causality, and a positive moderating effect on the relationship between avoidance group and self-brand connection.

The three dimensions of uniqueness demand (creative choice, non-popular choice and similarity avoidance) significantly affect brand choice; Brand avoidance plays a mediating role between creative choice and other brand choice, and between similarity avoidance and other brand choice. Gender moderates the effect of creative choice on brand avoidance, and moderates the mediating effect of brand avoidance between creative choice and other brand choices. Product type moderates the effect of creative choice and similarity avoidance on brand avoidance, and moderates the mediating effect of brand avoidance between creative choice and other brand choice, and between similarity avoidance and other brand choice.

ACKNOWLEDGEMENTS

I would like to thank the chief editor and anonymous reviewers for helpful comments towards the fruition of this article.

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Liu Haihong¹
Muhammad Ashlyzan Razik²

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: a20e0277f@siswa.umk.edu.my

ABSTRACT

With the increasing maturity of e-commerce technology, customers' shopping convenience and experience have been improved. This paper takes the e-commerce environment formed by the development and application of Internet technology as the background, and starts from the core role of innovation management in business model innovation. On the basis of analyzing the mechanism and path of business model innovation, this paper studies and provides theoretical support for business model innovation management, aiming to provide feasible operational schemes for commercial enterprises to adapt to the development of e-commerce and carry out business model innovation. Paper based on the innovation management, knowledge management, organizational management and ability evaluation theory, combining theoretical analysis and mathematical statistical analysis, game analysis, and mathematical model and simulation method, analysis of the electronic commerce environment development opportunities for business model innovation and business model innovation based on the electronic commerce environment driving factor is put forward on the basis of business based on the electronic commerce environment The main contents of model innovation management include the path selection of business model innovation, the organization management of business model innovation, the knowledge management of business model innovation and the evaluation management of business model innovation ability.

Keywords: Electronic Commerce; Commercial Enterprise; Business Model; Business Model Innovation; Innovation Management.

INTRODUCTION

The development of electronic commerce has become more mature, in recent years is into the "fast lane". Fierce market competition and large inflow of foreign capital make Chinese commercial enterprises urgently need to deal with the changeable market environment through business model innovation. (Chesbrough, 2007). With the rapid development of e-commerce, many commercial enterprises apply e-commerce to daily operations, which gradually deepens the transformation of Internet in all links of commercial enterprises. According to the China Internet Network Information Center, by December 2019, 45.3 percent of Chinese commercial enterprises had carried out online sales, up 12.7 percent from the previous year (Guoh, Tang, Suzf, et al, 2017). Commercial enterprises actively improve the digital level of their stores, get through online and offline information of commodities, customers and orders, and better match customers, commodities, venues and other commercial factors, thus improving operational efficiency. The development of e-commerce provides new opportunities for the business model innovation of commercial enterprises, and the business model innovation based on e-commerce has become the focus of attention (Gupta, 2016).

RESEARCH METHOD

This paper comprehensively uses a variety of theories and methods to conduct a systematic research on business model innovation management based on e-commerce environment. The specific research methods are as follows:

1. In the research stage of business model innovation mechanism, systematic scientific research method is adopted to explore the business model innovation mechanism based on e-commerce environment, and the role, content and structure of business model innovation management based on e-commerce environment.
2. In the research stage of business model innovation path selection based on e-commerce environment, literature research method is adopted to review a large number of domestic and foreign literatures, sort out the innovation theory, and clarify the influencing factors and advantages and disadvantages of many alternative e-commerce innovation paths. Six kinds of business model innovation paths are evaluated by multi-dimensional color scale selection matrix, which provides a reference for enterprises to choose a relatively appropriate business model innovation path.
3. In the research stage of business model innovation management organization system based on e-commerce environment, the competency evaluation model of innovation organization is adopted to construct the evaluation index system of innovation management organization members, and hierarchical analysis and effect function are adopted to evaluate the quality of alternative members to provide a basis for the selection of innovation management organization members. In order to solve the possible problems in the cooperation innovation organizations with different functions, this paper adopts the evolutionary game method to carry out dynamic evolutionary game for different cooperation modes among innovation management organizations in commercial enterprises.
4. In the research stage of business model innovation knowledge management based on e-commerce environment, the tripartite game model is adopted to analyze the tripartite game problem of knowledge sharing among entity business, e-commerce platform with ICT function and external organizations or members in the open innovation community of commercial enterprises. Three test functions, Sphere function, rosenbrock function and rastrigin function, were selected by MATLAB software to conduct computer simulation experiments to verify the effectiveness of the iterative optimization method (TPGM). At the same time, TPGM, cross and variant open innovation model (NIM) and improved binary Logistic regression algorithm are respectively used to simulate the three-way game of open innovation community of commercial enterprises, entity business, e-commerce platform and external organizations or members, and the effectiveness of the three algorithms is compared.
5. In the research stage of business model innovation ability evaluation based on e-commerce, fuzzy comprehensive evaluation method is used to evaluate business model innovation ability. Based on the idea of evaluating business model innovation capability from the perspective of innovation capability structure, an evaluation index system of business model innovation capability is constructed, which includes 5 second-level indicators, 11 third-level indicators and 24 measurement indicators (fourth-level indicators). Ahp is used to determine the index weight, and finally build the evaluation model of business model innovation ability.
6. In the stage of empirical research, the research results of this paper can be used in commercial enterprises to predict the possible development trend, and the possible problems in the application of the proposed countermeasures.

RESULTS AND DISCUSSION

Evaluation index system of business model innovation ability

Business model innovation capability system and business model innovation capability system consist of business model innovation design capability, business model innovation investment capability, business model innovation marketing and promotion capability, business model innovation strategic management capability and business model innovation knowledge management capability. Each sub-system includes its own structure and corresponding measurement indexes. Based on the idea of evaluating business model innovation capability from the perspective of innovation capability structure, an evaluation index system of business model innovation capability can be constructed, including 5 second-level indicators, 11 third-level indicators and 24 measurement indicators (fourth-level indicators) (see Table 1).

The variables involved in this study include seven variables such as employee disrespectful behavior, interactive justice, negative emotions, brand avoidance, negative word of mouth, self-esteem and product type, as well as control variables such as demographic characteristics. In this study, except for category variables (product type and demographic characteristics variables), Likert 7-level scale was used, with "1" to "7" indicating the degree from completely disagree to completely agree. As for the selection of the initial scale, this study tries to use the classical scale with a high citation rate in domestic and foreign literature and good reliability and validity after repeated empirical tests. At the same time, the cross-cultural applicability of western scales was carefully considered, and relevant scales with better reliability and validity in the Chinese context were selectively selected. For the English scale, the translation-back translation procedure recommended by Brislin was followed [179]. In this study, first of all, a Chinese management teacher teaching in an English-speaking country was asked to translate all the questions into Chinese, and then two graduate students proficient in both Chinese and English were asked to translate the Chinese back into English. And then item can be accurately understood, can measure the real intention of subjects, the issues of whether there is a too sensitive item to marketing, service management and human resource research field were two of three experts and service enterprise management (human resources manager and the manager - a) consult, adjustment is not proper, make the language more refined, item more accurate; Finally, the consensus questionnaire will be used for a pre-survey. By testing the predictive reliability and validity of the pre-survey data, the items with poor reliability and validity were eliminated, and on this basis, the measurement items of the formal survey were formed.

Table 1: Measurement Indicators

	Level 2 indicators	Level 3 indicators	Level 4 indicators
Business model innovation ability	Business model Type of innovation	Innovative designers create New ability level	The average educational level of innovative designers is X111
	The design can Force the X1	X11	Average experience level of innovative designers X112
		Business model innovation letter Information collection and processing Ability to X12	Enterprises have access to customer demand information channel X121 Enterprises have the means of analyzing and processing customer demand information X122

		Enterprises have access to the industry dynamic information channel X123 Enterprises have the means of analyzing and processing industry dynamic information X124
Business model Type of innovation Input X ₂	Business model innovation Capital investment X21	Willingness to invest in innovation capital X211 Innovation capital investment intensity X212
	Business model innovation manpower input X22	Proportion of people involved in business model innovation X221 Innovative designer time investment ratio X222
Innovative business model marketing and promotion force X3	Enterprise marketing reputation ability X31	Enterprise's position in the industry X311 Corporate brand awareness X312
	Enterprise marketing customer communication ability X32	Customer engagement X321 Customer communication intention X322
Business model innovation strategy management ability X4	Enterprise high-level business model innovation consciousness X41	Enterprise senior leaders have a higher risk readiness tendency X411 Senior leaders of enterprises do not carry out strict performance assessment on innovation activities X412
	Enterprise high-level innovation strategic decision-making ability X42	The problem cognition ability of enterprise top management X421 Enterprise high-level strategic choice ability X422
	Enterprise organization and coordination ability X43	Enterprise inter- departmental information communication ability X431 Enterprise inter- departmental behavior coordination capacity X432
The enterprise knowledge	Enterprise knowledge accumulation Ability to X51	The average working years of main mode innovators in the industry are X511

Knowledge management Ability to X5	Enterprise's written record level of historical experience X512
Enterprise Knowledge Sharing Capability X52	Enterprise external knowledge sharing capability X521 Internal knowledge sharing capability X522

Evaluation method of business model innovation capability

$$(K = 1, 2, 3, 4)$$

The evaluation matrix X of 24 measurement indexes can be obtained.

$$X = [x111, \dots, x124, x211, \dots, x222, x311, \dots, x322, x411, \dots, x432, x511, \dots, x522]$$

According to the impact degree of the five factor level indicators on business model innovation capability, the weights are determined as w_i ($i = 1, 2, 3, 4, 5$), and $\sum w = 15$; According to the influence degree of each index on the superior index of the 2-level factor layer, its weight is determined as W_{ij} ($j = 1, 2, 3$), and $\sum w = 1$; According to the influence degree of each index in the index layer on the superior index, its weight is determined as W_{ijk} ($k = 1, 2, 3, 4$), and $\sum w = 1$. The weight of each level can be represented by a 3-row matrix:

$$W_i = [w_1 w_2 w_3 w_4 w_5]$$

Firstly, the connotation of business model innovation ability is clarified, and the structural model of enterprise innovation ability is used for reference to innovate business model Ability to specific divided into five categories, followed by business model innovation investment ability, business model innovation design ability, business model innovation marketing ability, business model innovation strategy management and knowledge management, business model innovation ability, the ability of concrete analysis of each evaluation index, thus formed the business model innovation ability evaluation system and measure method, Finally, the evaluation model of business model innovation ability is constructed.

CONCLUSIONS

Based on the influence of e-commerce environment on business model innovation, this paper analyzes the mechanism of business model innovation of commercial enterprises. According to the logic of customer value proposition, it puts forward the business model innovation path based on e-commerce environment, and puts forward the business model innovation path selection method. Based on the process of business model innovation, this paper analyzes the organization system of business model innovation management, and deeply studies the composition of business model innovation management organization, the selection of members and the conflict of organization operation and the solution. Starting with the analysis of knowledge needed for business model innovation based on e-commerce environment, this paper studies the knowledge management of business model innovation based on e-commerce environment with emphasis on the sharing of business model innovation knowledge. Based on the analysis of the composition of business model innovation ability and related influencing factors, this paper puts forward the evaluation index system and evaluation method of business model innovation ability based on e-commerce environment.

ACKNOWLEDGEMENTS

I would like to thank the chief editor and anonymous reviewers for helpful comments towards the fruition of this article.

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Empirical Analysis of Cross Period Arbitrage Strategy of Cathode Copper Commodity Futures

Wen Peicheng¹
Ainon @ Jamilah Ramli²

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: a20e0201f@siswa.umk.edu.my

ABSTRACT

Futures cross - market and cross - cycle arbitrage is a speculative behavior that uses the price difference of different markets to arbitrage the price difference. Among them, the cathode copper of Shanghai Futures Exchange and New York Futures Exchange has a large price difference fluctuation, so there is the possibility of arbitrage. In cathode copper trade, tariffs and transportation fees are the main costs of trade. By adding the market price of cathode copper products in New York to the main costs such as tariffs and transportation fees, the profit of imported cathode copper can be calculated. Based on practical experience and mathematical statistical research, this paper establishes a cathode copper arbitrage model, and uses the price data from 2017 to 2022 for back testing. The results show that the model has good profitability. In addition, this paper also provides a method to assist in analyzing the fundamentals of single variety spot, which provides a reliable guarantee for the safety of arbitrage opening. However, due to the existence of various risks, such as market risk, transaction risk and fund management risk, as well as the irrationality of the model design itself, such as transaction cost, deviation, etc., the model will inevitably encounter many problems in the real transaction. Investors can perfect and improve the model on the basis of this research to make it more suitable for the actual situation of the futures market and the individual needs of investors.

Keywords: Commodity Futures, Cathode Copper, Arbitrage.

INTRODUCTION

Product overview and Market Overview

The cross-border futures arbitrage theory has long existed. Theoretically, cross-border arbitrage trading is nothing more than relying on trade or the logical basis of production is to smooth out the price differences in different markets through trade calculation. However, in practice, the author observed that the market background and theoretical model that cross-border arbitrage transactions need to rely on are far more than that simple, and many factors such as exchange rate, tax, subject matter quality, delivery standard, transportation, time lag and so on need to be considered. During this period, changes in market structure and even policy risks usually have a greater impact on cross-border arbitrage strategies at home and abroad. Different commodity futures often have commonalities, and the cathode copper futures market focuses on the various characteristics of the bulk commodity futures market, providing good materials for the study of cross-border arbitrage strategies in the commodity futures market.

Theoretical basis

The cross-border arbitrage of commodity futures is based on the spot logic: when the same commodity price exists in two different markets. There is an obvious difference. If the cost of the commodity flowing from one market to the other is lower than the price difference in the two markets, that is, the price difference can cover the flow cost of the spot commodity. It will be profitable to move (export) the commodity from one market to another market, which will attract spot traders to truly realize the above-mentioned flow of commodities through trade flows, thus causing changes in the supply and demand structure of the two markets. This in turn leads to a narrowing of the price gap until trade flows become unprofitable.

Existing problems

In real trading, there are many factors that can affect the trend of futures price difference in different markets at home and abroad. First of all, whether the above-mentioned trade flows are smooth is the key to cross-border arbitrage. This paper will take cathode copper as an example to analyze the realizable conditions of cross-border spot trade and cross-border futures arbitrage trade at home and abroad under different market structures and policy backgrounds, and verify them with a large number of empirical analysis, including the changes in the import and export environment and structure of cathode copper at home and abroad in the past five years and the theoretical and empirical analysis of the price correlation between the two markets. Secondly, tax rate, exchange rate, premium and freight are important indicators that affect import profits. These indicators have a great impact on import profits in the process of cross-border arbitrage at home and abroad. In order to stabilize arbitrage profits, it is necessary to lock them in properly. Thirdly, in the spot trade of commodity import and export, there are many variables other than the price, which will also greatly affect the income of inter term arbitrage, including the quality of the subject matter, delivery standards, transportation delays and many other problems. These problems seem to be outside the price, but they may also affect the arbitrage results, which must be paid attention to. In previous studies, many researchers evaluated the entry opportunity and profit space of arbitrage based on statistical methods, including some use the statistical spread level, and some use the statistical ratio fluctuation range. These actually lack the spot basis, because under the background of different tariff policies, different price range levels, freight rates, premium discounts, exchange rates and so on, the timing (spread level) of cross-border arbitrage can be very different, and cannot be measured only by the constant spread standard.

RESEARCH METHODS

The research methods of this paper mainly include observation and empirical analysis. Based on the careful observation of the cross-border arbitrage trading results in the cathode copper futures market at home and abroad, the accounting methods of spot import costs and arbitrage positions in different channels will be integrated. Compare the actual observed cases with the theoretical models, hoping to get new discoveries from them, and at the same time rise to the theoretical level to extract valuable insights and conclusions. In the process of empirical analysis with cathode copper futures as an example, empirical analysis tools such as equilibrium analysis, static analysis, dynamic analysis, quantitative analysis and logical deduction will be used to strengthen the practicality and effectiveness of research results, find common parts of cross-border arbitrage strategies for commodity futures, and make the research conclusions universal and applicable.

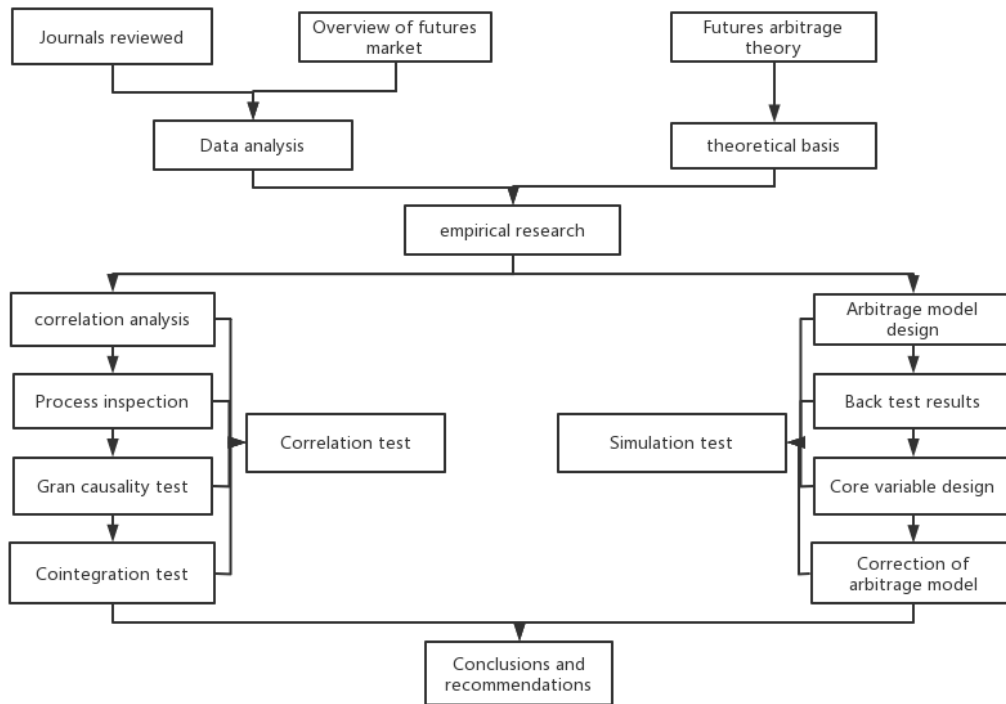


Figure 1: Research Flow

Objective of empirical research

The ultimate goal of the research on cross-border arbitrage strategy of commodity futures in this paper has two aspects. On the one hand, the author hopes that Through a large number of empirical analysis to test the effects of cross-border arbitrage strategies under different backgrounds, we hope that the research conclusions can contribute to the theory of commodity futures arbitrage strategies; On the other hand, the author also hopes that the arbitrage strategy conclusions obtained through the research have practical significance and can be effectively used in actual futures investment to help investors make profits.

Arbitrage model

1. Cross border arbitrage selection and contract introduction

Select copper cross-border arbitrage as the research object As mentioned above, the logical basis of cross-border arbitrage of commodity futures is based on spot trade as the background and ultimate driving force Then the factors to be referred to in the arbitrage process should also be based on the real spot trade cost. Therefore, cross-border arbitrage with real trade flow protection must strictly calculate the income of traders in real trade in order to make a relatively accurate evaluation of the entry opportunity and profit space of cross-border arbitrage. In the real cross-border arbitrage transactions, the feasibility and profit margin of arbitrage are measured by calculating the forward import profit. Common ideas include cross-border arbitrage of copper futures based on the New York metal exchange and Shanghai Futures Exchange, which are based on trade financing of copper traders.

2. Introduction to copper cross-border arbitrage futures contract

Although there are many cathode copper futures in the international market, their transactions are not active and most of China's import enterprises import cathode copper consistent with domestic standards. Therefore, we choose cathode copper futures of Shanghai Futures Exchange and New York Futures Exchange as the discussion objects of cross-border arbitrage. In actual arbitrage trading, arbitrage traders also choose the contracts of these two exchanges. The rubber futures of the New York Futures Exchange is the pricing center of the international cathode copper bulk trading. The major traders in the international market all use the futures contract to trade at a point price plus an upward discount. Copper mining enterprises in major producing countries such as North America also use the futures for hedging. The cathode copper contract futures contract of Shanghai Futures Exchange is one of the most active commodity futures in China. The subject matter of the cathode copper contract of Shanghai Futures Exchange is in compliance with class a copper (Cu-CATH-1) in the international standard GB / t467-2010. The cathode copper imported also meets this standard and can be delivered. Each contract is 5 tons. Since the night market, trading has become more active and market changes have been reflected in time. Cathode copper delivery warehouses are distributed all over the Chinese market, and warehouses are also designated delivery warehouses, which facilitates the delivery of imported cathode copper.

Table 1: cathode copper contract of Shanghai Commodity Futures Exchange

Cathode copper (CU2210) contract	
Trading hours	9:00-10:15, 10:30-11:30, 13:30-15, 21:00-01:00 from Monday to Friday in BeiJing District
Contract unit	5t / lot
Quotation unit	yuan (RMB) / ton
Transaction code	CU
Delivery month	October 2022
Minimum price change	10 yuan / ton
Delivery grade	In accordance with class a copper (Cu-CATH-1) in international standard GB / t467-2010
Delivery place	delivery warehouse designated by Shanghai Futures Exchange
Last trading day	within three trading days of the 15th day of the contract month



Figure 1: Shanghai Copper Price

The subject matter of the cathode copper contract of the New York Futures Exchange is the cathode copper conforming to class a copper (Cu-CATH-1) in the international standard GB / t467-2010, which is consistent with the domestic standard of China. Each year's futures contract is divided into 12 months, which is the main contract for cathode copper pricing. It is quoted in US dollars / pound, and each contract is 25000 pounds, about 11.34 tons. The rubber trading time is converted to 18:00 (t-1) - 17:00 Eastern time from Monday to Friday. The delivery place is mainly in North American ports, which is basically consistent with the real trade delivery place.

Table 2: cathode copper contract of New York Futures Exchange

Cathode copper (CU2210) contract	
Trading hours	Monday to Friday 18:00 (t-1) - 17:00 est
Contract unit	25000 lbs
Quotation unit	USD / lb
Transaction code	HG
Delivery month	October 2022
Minimum price change	US \$12.50
Delivery grade	In accordance with class a copper (Cu-CATH-1) in international standard GB / t467-2010
Delivery place	NYSE designated delivery warehouse
Last trading day	The last trading day of the month before the delivery month

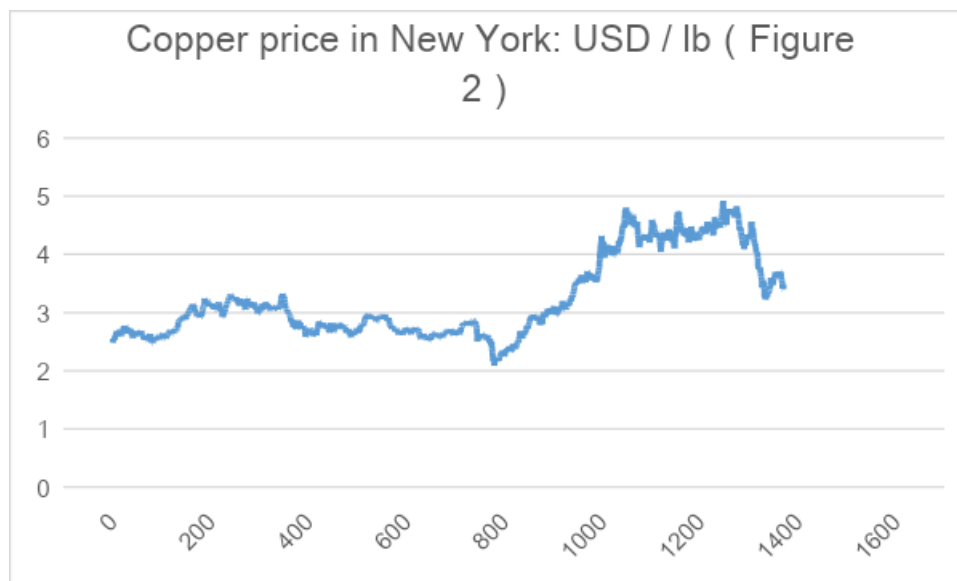


Figure 2: Copper Price in New York

Basic model of cross-border arbitrage

Get arbitrage model from real spot trade. Since the design of cross-border arbitrage model is based on the spot background and fundamental support of traders' imports, we first introduce the method of international traders to calculate the profit of cathode copper imports, and extract a suitable arbitrage calculation model from this method. For the import of cathode copper, first of all, the futures panel is also used to point the price. Here, we take the accounting of the import profit of cathode copper imported by the importer on August 1, 2022 with a shipping date of 9 months as an example. The FOB price is obtained by adding the panel point price, the far month discount quotation and the quality premium, and the CIF price is obtained by adding the Shanghai freight and insurance premium. After import customs declaration, in addition to paying taxes, we should also consider the cost of issuing letters of credit, quality inspection fees, loading and unloading and short-distance transportation fees. In the case of physical delivery, we should also consider the bagging fees, losses and capital occupation interest fees. In this way, we can get the final cost of import to the New York commodity futures exchange for delivery and compare it with the cathode copper futures of Shanghai Futures Exchange.

Arbitrage design and analysis

1. Based on spot trade

As mentioned above, the logical basis of cross-border arbitrage of commodity futures is based on spot trade as the background and ultimate driving force then, the factors to be referred to in the arbitrage process should also be based on the real spot trade cost. So true for cross-border arbitrage with trade flow protection, it is necessary to strictly calculate the income of traders in real trade. Make a relatively accurate evaluation of the entry opportunity and profit space of cross-border arbitrage.

2. Factors affecting arbitrage

In spot trade, there are many factors affecting the profit of bulk commodity import, including trade policy restrictions and taxes Rate, exchange rate, discount, freight, quality of subject matter, delivery standard, transportation delay, etc. First and foremost what we want is trade

policy restrictions, which determines whether arbitrage can be carried out and the main logic of arbitrage application.

Table 3: method of calculating import profit

date	2022.08.01
contract	2022.10
Futures premium/discount	-1%
exchange rate	real time
FOB	1638
Sea freight	real time
insurance premium	0.3%
CIF	629
Import tariff	10.5%
Cost of letter of credit	0.45%
Quality inspection expense	
Transportation loss	0.09%
Unloading cost	5
Road transportation fee	4
Bagging fee	8
interest	Annualized 6%

Test and inspection of cross-border arbitrage model

1. Data collection and processing data processing

Data collection after determining the independent variables of the basic model of cross-border arbitrage, we collected the data of the above independent variables. The closing price of each contract of Shanghai cathode copper futures was collected from the official website of Zhengzhou Commodity Exchange, and the data is daily data from 2017 to now (Figure 1); The closing price of each contract in the history of New York cathode copper futures was collected from the terminal system, and the data is the daily data from 2017 to now (Figure 2);

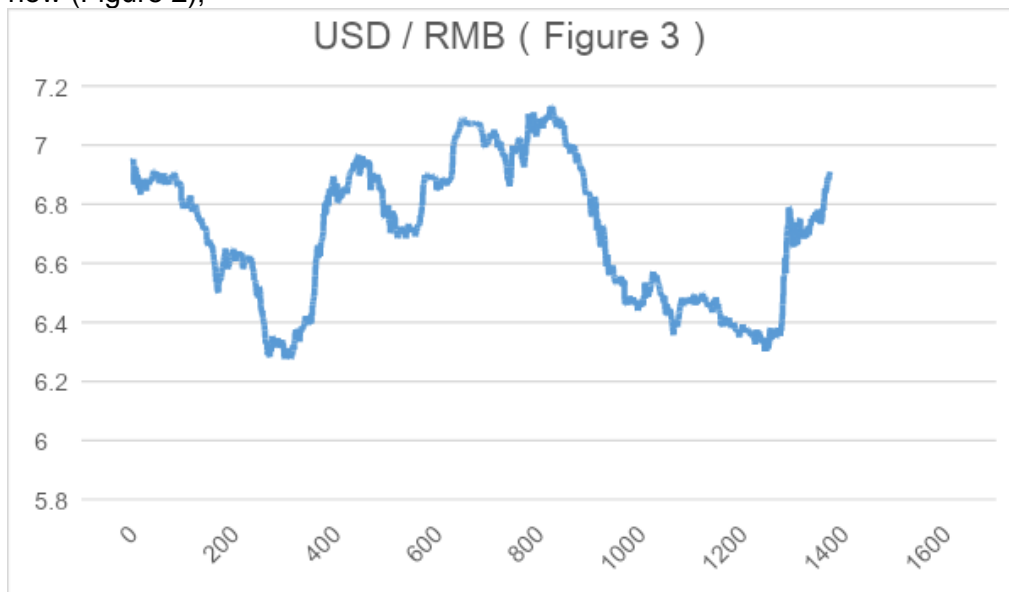


Figure 3: USD/RMB

The exchange rate price of RMB against US dollar is collected from the people's Bank of China, and the data is daily data (Figure 3).

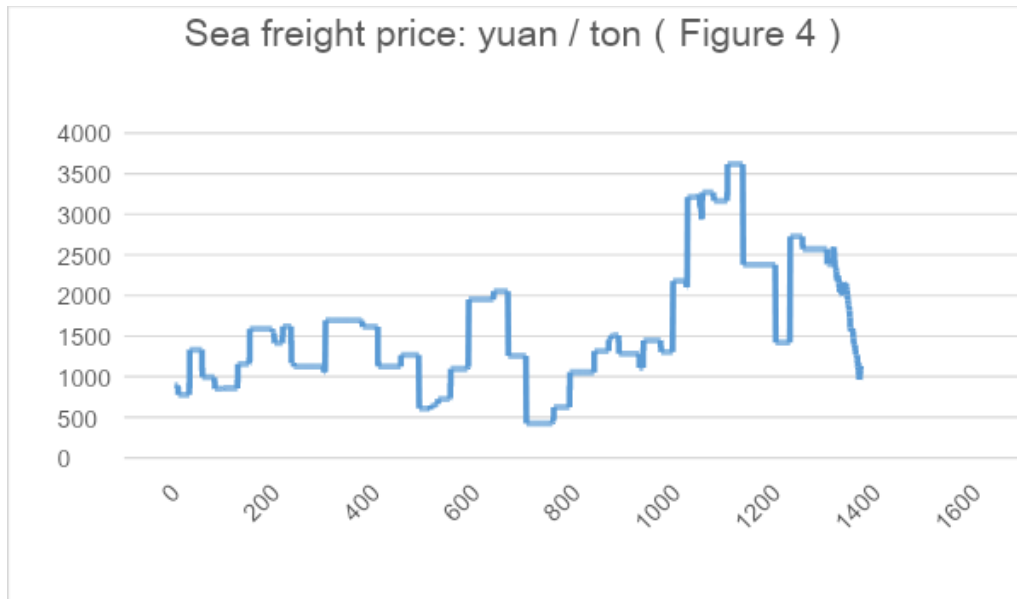


Figure 4: Sea Freight Price

The sea freight quotation is collected from the Baltic Sea shipping index statistics office, and the data is the daily data since 2017 (Figure 4); other data are collected from Reuter's terminal system, and the data are daily data.

2. Model improvement

However, our application of the above calculation method in arbitrage calculation is too cumbersome, so we try to Simplify slightly. In the above calculation, in addition to the unavoidable quotation, premium and freight, the part with the largest weight. That is, import tariff, exchange rate and freight. Although insurance accounts for a small proportion, its calculation is relatively fixed, while other expenses such as short-distance transportation, bagging, interest, unloading, quality inspection and letter of credit are relatively small or fixed. We can use constant variables to measure them.

$R(T) = \text{Profit (Figure 5)} = \text{Shanghai copper price} - (\text{U.S. copper price} * \text{real-time exchange rate of U.S. dollar to U.S. dollar} + \text{sea freight} + \text{tariff} + \text{other expenses})$

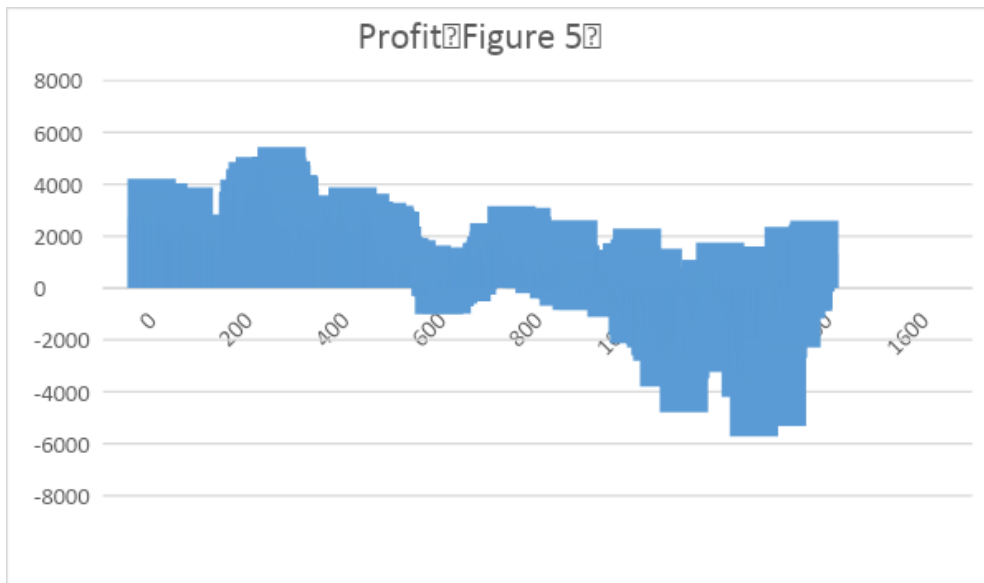


Figure 5: Profit

3. Actual test of cross-border arbitrage

For the arbitrage observation value test, under the processing of the above methods, we have obtained a total of 1371 samples of four groups of data. Taking the import profit $R(T)$ as the observation value, the expression of $R(T)$ is as follows:

Through testing, it is found that $R(T) > 0$ has strong constraints on the observation value during the observation period, which is also reflected in the group of data. It is difficult for $R(T)$ to be lower than zero for a long time, and after $R(T)$ is higher than zero in a certain area, it will basically eventually fall back; On the contrary, in the interval of $R(T) < 0$, the observation results do not have significant extremum constraint characteristics, and the range of $R(T)$ extremum is uncertain. However, in recent years, the absolute value of extremum has generally decreased.

Arbitrage effect analysis

We will conduct a practical test from the actual arbitrage opportunities in history, and take $R(T) > 0$ as the entry standard to conduct a practical test on the arbitrage opportunities that occurred in the contract from 2017 to 2022. We believe that when the closing price shows an entry signal of $R(T) > 0$, it will intervene in the arbitrage operation of "buying the cathode copper contract of the New York commodity exchange and selling the corresponding cathode copper of the Shanghai Futures Exchange" (in actual trading, it is often intraday operation, not the closing price, here only the relatively clear closing price is used as the statistical standard), and the return on price difference is used as the observation standard for closing profit. For the arbitrage signal given every time $R(T) > 0$ in the history in Figure 5, we have obtained a total of 690 trading opportunities for four pairs of contracts in the historical observation period. Because the timing of profit liquidation is often decided by the fund manager, Here, we only give the maximum closing price difference (the lowest position reached by the return of the price difference before the contract delivery) after the intervention of arbitrage trading in history and the price difference level that persists until the contract delivery (the last closing opportunity or the price difference entering the final delivery) as the closing bottom line. Generally speaking, the $R(T) > 0$ index of the contract pair is more obvious for cross-border arbitrage, and the final profitability is also relatively good. The rate of return and frequency are both high (Figure 6), which can be used in real arbitrage operations.

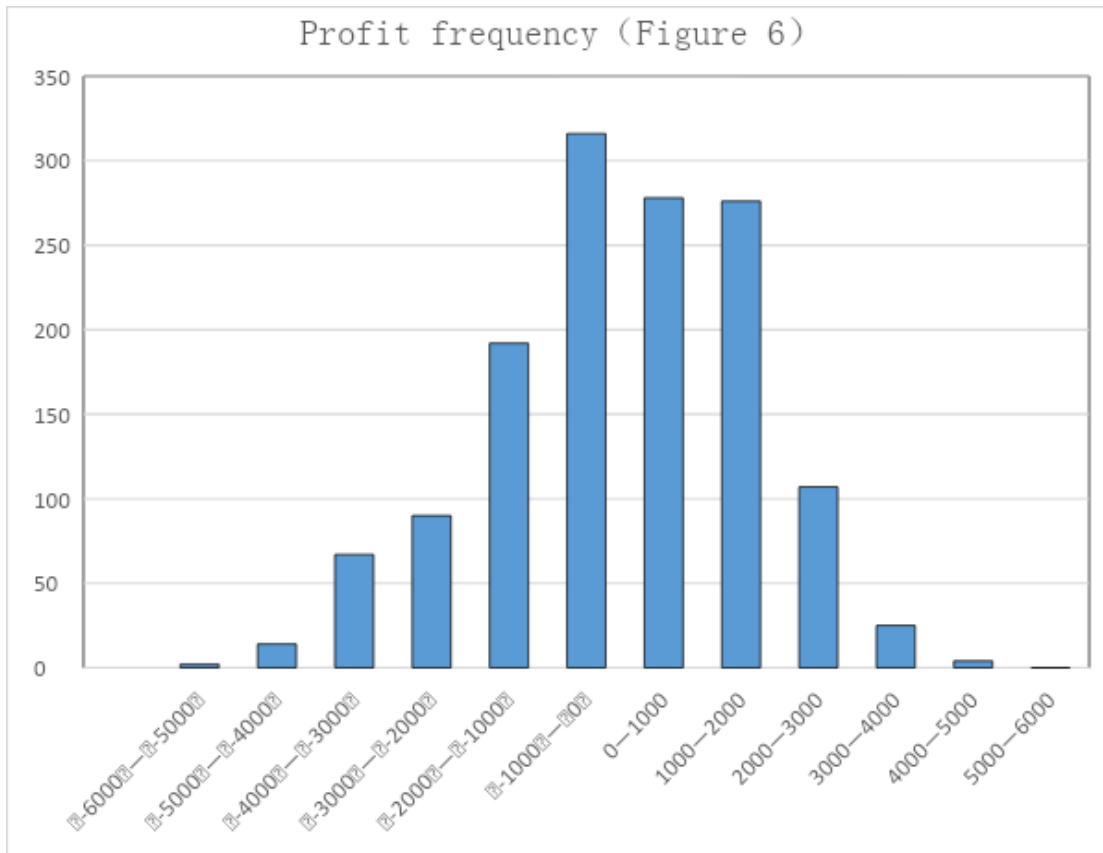


Figure 6: Profit Frequency

SUMMARY

Cathode copper futures are excellent materials for cross-border arbitrage research at home and abroad because of their active transactions, universal subject matter and high participation of spot traders. Through the research on cross-border arbitrage of cathode copper futures in Shanghai Commodity Futures Exchange and New York commodity futures exchange, and with the help of the calculation method of import profits in the spot market, a cross-border arbitrage model of cathode copper under the background of unrestricted import is proposed. It is expected that it can be used for reference for the cross-border arbitrage of most domestic commodity futures. We take the formula in the text as the final cross-border arbitrage calculation model. The main variables include the cathode copper price of Shanghai Futures Exchange, the cathode copper price of New York Futures Exchange, the forward premium quotation, the forward freight price and the forward exchange rate. These variables can all be found in the actual work. This model uses import profit as the observation index, and the main variables are domestic and foreign prices, freight, exchange rate, and discount. It is similar to most imported agricultural products, making this method applicable to most bulk commodities, and can be used for reference for the study of cross-border arbitrage strategy of bulk commodity futures listed in the future.

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The Effect of Safety Leadership, Capacity building, and safety Performance towards Safety Outcome among Malaysian Royal Navy

Choong Chin Aun¹
Mohd Ikhwan Aziz²

^{1,2} Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: choongchinaun@gmail.com

ABSTRACT

In general, the Royal Malaysian Navy (RMN) is one of the Malaysian armed composition. Thus, it is crucial to ensure that every of the Malaysian armed forces stays in a safe working environment. Apart from that, it will sustain the Malaysian security and peace all the time. In which, from statistical data published by RMN safety department displayed a significant number of deaths and fatal injury cases during operation and normal working situation in RMN. Hence, there is a need improvement of safety leadership, capacity building and safety performance towards better safety outcome in RMN. Next, the determining factors will be analysed with IBM-SPSS (Statistical Package for the Social Science) as a tool of analysis. Among the total number of 3,727 RMN leaders or policy implementers, only 348 were chosen as unit analysis for research sampling with simple random sampling as a method. Finally, the generated data shown results all the factors were significant towards safety outcome in RMN. The finding of this result has substantiated significant contributions to the field of safety in RMN as well as Malaysia Arm Forced either in safety outcome improvement that should generate safe working condition. Thus, this paper primary objective to improve safety and healthy working environment in RMN.

Keywords: Safety Leadership; Capacity Building; Safety Performance; Safety Outcome; Royal Malaysian Navy.

INTRODUCTION

The Organization for Economic Co-operation and Development (OECD) describes the occupational injury as “Any serious injury, disability or death caused by accident at work” (Ganesh & Krishnan, 2016). According to the International Labor Organization (ILO) (2020) every day, people die from work-related injuries or illnesses in which it recorded more than 2.78 million deaths worldwide per year. Additionally, around 374 million non-fatal work-related accidents are reported to last year, resulting in more than four days of work absences. The human cost of this everyday misfortune is high, and the economic impact of inadequate safety and health policies in workplaces are estimated at an annual average of 3.94 per cent of global GDP.

Developed countries have the highest fatality rate for injuries where the top common accident types were “fall from a higher level” and “struck by” (Choi, Guo, Kim, & Xiong, 2019). Safety and health at work are critical on social, legal and financial grounds. Occupational injuries are a significant concern for society, with historical evidence alerting each year to the high incidence and seriousness of such events. In which, the International Labor Organization (ILO) declares

that the risk of fatal work accidents in developing countries is nearly twice as high as in developed countries, suggesting a possible association between the fatality rates and the level of development (Baradan, Dikmen, & Akboga Kale, 2019). The studies about the Occupational accident in the workplace has exposed the adverse effect of these threats on their victims, families and co-workers (Dembe, 2004), in both cognitive and behavioural outcomes (Goncalves et al., 2008).

The RMN is the one component of the Malaysian Armed Forces. It is well-known for the RMN mission to protect the straits settlement and interest of Malaysian maritime. RMN has been responsible by the Malaysian government to ensure safety and peace of Malaysian maritime from the outsider intruder. Apart from that, RMN function is including the capabilities to enhance the national domestic security to a diversified of incidents such as catastrophic events (i.e. floods, and bush event). Throughout this, RMN personnel seems to be a significant asset to move in every inch of the RMN operation. In which, they are the most valuable resource in the RMN given armies where it represents the professional, hierarchy organisations character, highly structured, and stand with the high level of discipline and motivation. By their righteousness of capacity, the training and operation in the field is a life-threatening environment. At the same time, they have to remain motivated to achieve individual and shared goals.

However, when it comes to safety, they have to operate the field mission with the immediate environment, in which, as they need to calculate the risk effectively to minimise risk failure operation which to ensure their safety outcome. In the same vein, the daily task at their operation base also has come to the attention of safety. Where, at the operation, the navy personnel also exposed to several hazards such as ammunition, deadly weapon, engineer machine operation, and intense military training. In which this hazard exposer might lead them to the fatal accident and would catalyst the life-threatening to the navy personnel. Therefore, when it comes to safety measure, the RMN needs to take serious action to ensure the navy personnel safety were safe at all the time, either on the mission field or operation base. A capacity building of safety measure, leadership involvement, compliance, would lead to better safety outcome. By having this safety combination of the pillar, it would postulate the formulation of safety environment practice in RMN. Consequently, on that particular matter, this research intends to focus a study on occupational safety and health among the RMN personnel. Since there is a lack of transparency in the safety and health practice in RMN, besides, this research would propose an improvement in formulation safety outcome model for RMN for better practice.

Concurrently, according to Hamid and Shariff (2017) study, between 2010 and 2015, a total number of 61 accident and injury cases were recorded during food preparation among Navy Cooks in the RMN ships' galley. In the same vein, Syed Aziz, (2012) reported that the statistical data from the Ministry of Defense's Record and Pension Department (JRP) showed that 289 army personnel were death in duty from 2000 to 2011, with an average of 24 death annually. Therefore, the main problem of the RMN in safety is to gain better safety outcome that substantiated from leadership, and organization capacity itself (capacity building) including with RMN personnel (safety performance). Hence, integrated and combination factors need to be postulated in RMN safety practice to generate better safety outcome result. Those factors are leadership style, capacity building, safety performance, and safety outcome. These factors will be further identified and examine to determine its function in this research. So, the need to model development for safety outcome in RMN would have more inclusive and comprehensive result for better future safety compared to previous practice. For that reason, this research is deemed necessary to be further examined and carried out for better health and safety among RMN personnel. In general, the main objective of this paper is to develop a model for better safety outcome in RMN.

SAFETY LEADERSHIP

Safety leadership was one of the divisions of leadership style, where the leadership style was widely discussed in management. There is a lot of discipline to consider the leadership style, especially in the organisation part. Commonly, most of the leadership debate stand around on how to manage the workers, individual, and organisation. Apart from that, the leadership style typically concentrates on the outcome for productivity, profit, and turnover. However, in this particular research, the focus is about safety in the organisation. Thus, the emergence of a millennial era begins a different dimension of leadership style in the organisation, the phrase of “good safety is good business” widely spread (Yukl, Gordon, & Taber, 2002). From this phrase, it was stated that the importance of safety leadership in the organisation to sustain the business or organisation performance.

Currently, most of the past empirical leadership and safety research is from the energy and manufacturing industry (Ginnett, 2010; Fallucco, 2018). But still, there is safety leadership has been discussed in the military organisation (Winn, 2014). The author has discussed the need for the leader in the development of safety in the military organisation. Furthermore, Flinn (2003) extended the need for safety leadership in the military organisation due to the dangerous activity of armed forces expose, including with the hazard exposer. A transformational leadership from autocratic or regimental leadership should be intervened with the safety leadership as part of the scope of leadership in the military organisation. Despite concentrate on discipline manner, a need for safety measure concern among leadership is a current focal point in the military in ensuring each of the armed forces stays safe (Alexander Arthur & Hardy, 2014).

The element of safety leadership should concern about the transformational and transactional value in leadership (Bass, 1994; Masood, Dani, Burns, & Backhouse, 2006). The transactional in leadership is about the relationship between leader and follower. The leader is promising in rewarding the subordinate or follower towards their performance in an agreed standard guideline given. From this situation, the leader gained compliance with mutual benefit from the subordinate together with the expected outcome of the performance (Bass & Avolio, 1993). Simultaneously, transformational leadership resides on the inspiring, charismatic, considerate and stimulating value (Bass & Riggio, 2006). Through this portray image of leadership, the subordinate would cultivate the sense of purpose towards the image of success, confident, shared goal, mutual understanding, and self-belief (Roueche, Baker III, & Rose, 2014). In summary, that revealed element of safety leadership is necessary to extrapolate the means of safety leadership in the military organisation.

CAPACITY BUILDING

Capacity building is also known as capacity development. It was first started in 1991 that the term evolved from the “community capacity building” by the United Nations Development Programme (UNDP). In the beginning, the meaning of capacity building defines as a development process that occurs in a long-term denote all relevant stakeholder. Furthermore, it divided into three different levels of the capacity building; individual level, institutional level, and societal level (United Nations Committee of Experts on Public Administration, 2006). In the same vein, Wakely (1997) defined the capacity building is about training or human resource development in combination with organisational development and institutional development. From that point, the process of capacity building for the individual would equip with the inclusive understanding and skills so that the talent could generate a compelling performance. On the other hand, Honadle (1981) described that capacity building is a concept that subsists towards

the broad range of activities that are the focus at enhancing the capability of citizens and their governments to generate further responsive and efficient services and public goods.

Hence, it can conclude that capacity building is the set of activities towards the development to improve any particular individual, organisation, institutional, or societal. In that way, capacity building can be linked to safety development by promoting standard and participation (Murie, 2007). Consequently, the capacity building would promote catalyst better sustainable development in the organisation towards improving safety outcome.

SAFETY PERFORMANCE

The term safety performance was widely used in many organisations as its function to improve performance in safety practice. Several studies have discussed the meaning of safety performance as part of the criterion measure in term of accident rates (Siu, Phillips, & Leung, 2004), occupational injury rate (Siu, Phillips, & Leung, 2004), near miss rate (Hinze, Thurman, & Wehle, 2013), safety compliance (Mejza, Barnard, Corsi, & Keane, 2003), and safety practice (Mearns, Whitaker, & Flin, 2003).

Before those indicators were mentioned in safety performance, Campbell, Gasser, & Oswald (1996) first discuss the distinction of performance component. Campbell et al. (1996) divided the element of performance into two parts, first about the determinant of performance and second, the antecedents of performance. While Borman and Motowidlo (1993) stated that component of performance explained the actual behaviour of the personals or individuals perform their task at work. In which, it segregates the performance into two main parts that are contextual performance and task performance.

They were starting in the new millennial area, as the working condition and task complexity become advance since the rapidness development of technology. The new definition of safety performance also has to be evolved. Thus, Safety performance has defined into further meaning, in which the element of safety practice and compliance advance the in this meaning (Griffin & Neal, 2000; Mejza, Barnard, Corsi, & Keane, 2003). Those combination meaning would inclusive the definition of safety performance in the way of process practice and policy improvement for compliance in the organisation. Thus, the outline of this literature defines the sub-element of safety performance into safety practice and safety compliance.

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THE STUDY FRAMEWORK

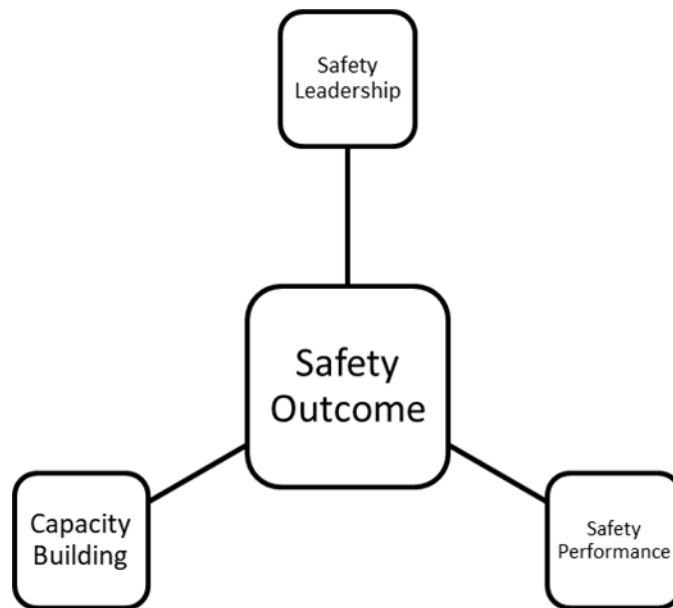


Figure 1: The Study Framework

RESEARCH METHOD

The main objectives of this study are to determine the effect of leadership style, capacity building, and safety performance towards safety outcome. For that purpose, this study use the quantitative approach to operate the research (Creswell & Plano Clark, 2007). Henceforth, this study will dwell on descriptive, exploration, and explanatory characteristics. The population focus from Commander to Lieutenant Level in RMN that aggregate at 3,727 individuals since they were the leader as well as the policy implementer in RMN.

Thus, the maximum number of sampling size for this research is proposed to have 348 samples (Krejcie & Morgan, 1970). This method is easy and practical to use as only required to refer to the table given. Apart from that, this number of sample size enough to generate the generalisation of the research from the total number of population (Draugalis & Plaza, 2009). Furthermore, this research uses another type of sampling method to complement the inclusive of the data analysis. Therefore, Hair, Black, Babin, and Anderson (2010) have suggested that the number of respondents should be between 5 to 10 times more than the number of items.

Once the sampling frame has been determined from the previous step, a Simple random sampling will be employed to remove bias generation in this study. By having so, this simple random sampling is parametric and probability-based, and thus it would satisfy the requirement to use SPSS as a method of analysis (Hair et al. 2010; Awang, 2015). This kind of method would ensure all subgroups in the population and unit analysis have an equal chance to be selected as respondents (Cochran, 1953; Hansen et al., 1953; McKay et al., 2000).

Each question will use Likert scale technique that will be measured at the 10-point scale (Hair et al., 2014; Dawes, 2008; Cummins, 2000; Norman, 2010). Each interval item in the questionnaire will be measured by examining how strongly the subject would agree or strongly disagree with the statement on a 10-point scale. In which it was suggested by Awang et al. (2016) that it is highly preferred the study could obtain a sample based on 10 Likert point scales in operating of measurement items.

All data found to be normal as distribution of the data skewed, fall range between -1.96 to +1.96 (Hair et al. 2010). Apart from that, Cronbach's Alpha analysis generated all above 0.8 value, this result showed the internal consistency of the data are at good level (Sekaran, 2016).

RESULTS AND DISCUSSION

Table 1: Correlations

		Safety Outcome	Safety Leadership	Capacity Building	Safety Performance
Safety Outcome	Pearson Correlation	1	.754**	.634**	.343**
	Sig. (2-tailed)		.000	.000	.000
	N	348	348	348	348
Safety Leadership	Pearson Correlation	.754**	1	.745**	.404**
	Sig. (2-tailed)	.000		.000	.000
	N	348	348	348	348
Capacity Building	Pearson Correlation	.634**	.745**	1	.469**
	Sig. (2-tailed)	.000	.000		.000
	N	348	348	348	348
Safety Performance	Pearson Correlation	.343**	.404**	.469**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	348	348	348	348

** . Correlation is significant at the 0.01 level (2-tailed).

Table 1 showed the Pearson Correlation Coefficient for Safety Leadership, Capacity Building, and Safety Performance towards Safety Outcome reduction. There is 348 total number of cases and the p-value for all variable shows 0.000, which is less than the maximum significant level of

0.05. Therefore, this study shows there is significant relationship towards safety outcome. The correlation coefficient of 0.754 of safety leadership towards safety outcome is the highest compared to capacity building and safety performance. Moreover, the positive correlation of the results portrayed the all the variable move in the same direction. Safety leadership and capacity building have the strong movement for safety outcome. While safety performance able to move about 0.343 with safety outcome.

Table 2: Regression

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.850	.173		4.924	.000
	Safety Leadership	.625	.051	.630	12.270	.000
	Capacity Building	.175	.059	.159	2.988	.003
	Safety Performance	.188	.066	.124	3.357	.001
a. Dependent Variable: Safety Outcome						

Table 2 indicated resulted of regression for Safety leadership, capacity building, and safety performance towards safety outcome. All the variable showed the significant level at 0.005 below, indicated that 95% of confidence level of the result. Safety leadership indicated highest significance level at 99% of confidence level, concurrent with beta value of safety leadership towards safety outcome at 0.625. Safety leadership believe to be a highest variable that comprehend towards the safety outcome value.

CONCLUSIONS

In summary, this paper has shown the evidence relationship of safety leadership, capacity building, and safety performance towards safety outcome. The result indicated that all variable positively correlated and have significance relationship. Thus, the objective of this paper has been met, which safety leadership is the highest contribution of the relationship for safety outcome. From this finding, safety leadership play a major role in the safety outcome for better result among the RMN in reducing the injury. Leadership in RMN should not only focus in management leadership or performance leadership, but also require to strengthen in safety leadership. Furthermore, capacity building also play an important role in preparing better safety workplace environment in reducing accident. Finally, performance of the RMN should not focus on real work, as the death threat exposer among RMN relatively high. Hence, improvement of safety performance should be in top notch ensuring all the RMN able to achieve high performance result with safe and sound.

In conclusion, the result from this paper justify the important of attribute safety leadership, capacity building, and safety performance towards safety outcome. However, numerous attribute can be included in future study to test better result output of safety outcome such as safety climate.

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Post- Covid19 recovery strategies: A conceptual study of Malaysian Family SMEs

Nor Syazleen Azahar¹
Sathiswaran Uthamaputhran²

^{1,2}Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: a21d046f@siswa.umk.edu.my

ABSTRACT

The infectious COVID-19 virus has ravaged our earth in 2019. This virus is to blame for Malaysia's economy decreasing drastically and the rest of the world according to Organisation for Economic Co-operation and Development (OECD). Numerous SMEs were impacted, and some of them were forced to close operations. The objective of this paper is to investigate the factors that support family SMEs' recovery ability during post-pandemic through an effectuation approach and dynamic capabilities. Technological capabilities, individual affordable losses, and controlling ability are factors to be considered for this study. To achieve this objective, we reviewed the specialized literature and proposed a new model based in Malaysia after verifying the relationship between the relevant variables. This study will look at Family- based SME companies that are already established in the domestic market and will use the quantitative method to do analysis. The findings of this paper will help the family SMEs to encounter any uncertainty like Covid-19 in the future.

Keywords: Effectuation Process; Family SMEs; Recovering; Pandemic; Government Policies; Malaysia.

INTRODUCTION

The role and contribution of small businesses as domestic market actors have received widespread attention in both small and international literature. Many countries around the globe have highlighted the contribution made by small and medium enterprises toward economic development. In Malaysia, SMEs are significant and recognized as the engine of the country's economic expansion (Ramdan, M.R.; Abd Aziz, N.A.; Abdullah, N.L.; Samsudin, N.; Singh, G.S.V.; Zakaria, T.; Fuzi, N.M.; Ong, S.Y.Y, 2022). Accordingly, SMEs in Malaysia provided 97.2% of all business growth in 2020, regardless of industry or size, and made up 38.2% of the country's GDP in 2021 (Department of Statistics Malaysia, 2020), (Department of Statistics Malaysia, 2021). However, in recent years, the abrupt appearance of Covid-19 has caused a recessionary trend in the global economy, with no one country being able to withstand its negative effects. It impacts many businesses that have restricted their worldwide chain activities, including small and medium-sized businesses. This is because of logistical constraints and limits, as well as other SMEs-related problems. The performance of SMEs declined due to COVID-19 and Movement Controlled Order (MCO) by the government. This is reflected in the 7.3 percent reduction in SMEs' GDP in 2020, which is larger than the 5.6 percent and 4.6 percent declines in Malaysia's GDP and Non-SMEs GDP, respectively (Department of Statistics Malaysia, 2021).

Thus, one of the major revival plans to bring back the business on track is through the process of entrepreneurship especially looking at how some Family SME companies survived during

post-pandemic especially can continue doing business. Some companies pursue profit making while others still suffering from the pandemic and after pandemic effects. These Family SME companies have actively brought in new ideas, new technological capabilities, and unique business models to support their business. This article will highlight the key factors that support SMEs and their relationship with SMEs' survivability during the post-pandemic time especially by looking at the family-based business which we believed survived during the post-pandemic time. There is so much gap and remained unexplored about how a company survived in the domestic market during a pandemic time. Because so little is known about the vital elements ensuring domestic survival during pandemics, it becomes more intriguing. There has to be more research in this field, especially with small enterprises and pandemics, as current models and concepts are incoherent.

LITERATURE REVIEW

Covid and the change in SMEs

A company is classified as an SME in each of the representative sectors by the Small and Medium Industries Development Corporation (SMIDEC) based on either the number of full-time employees or the yearly sales turnover. SME Corp's definition, which includes services, manufacturing, agriculture, construction, and mining & quarrying, encompasses all economic sectors. SMEs are defined as businesses with a sales turnover of less than RM50 million or 200 full-time employees in the manufacturing sector, and as businesses with a sales turnover of less than RM20 million or 75 full-time employees in the services and other sectors (SME Corp, 2022).

In 2019, the Covid -19 was reported to be found in Wuhan, China as a first case. Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus (WHO, 2022). The coronavirus disease (Covid-19) pandemic has outspread throughout the world, and it has significantly impacted the economic sector (Fendel et al., 2020; Rebucci et al., 2020). Then, the SMEs including family businesses were also significantly impacted, and many enterprises are now dealing with an unprecedented set of difficulties and demands on their operating cash flows, according to Musrrat Parveen (2020).

Due to the Covid-19 pandemic issue, SMEs now need to use technology to stay alive, remain competitive, reach out to more consumers, and give management the ability to make strategic decisions (K. G. Khai et al., 2020). SMEs in Malaysia urgently need to re-set their business models using digitization in order to survive the negative effects of the Covid-19 pandemic and to get ready for the post-pandemic economy (K. G. Khai et al., 2020). Small and medium-sized businesses including family enterprises prevail in their contribution to economic growth. In Malaysia, a sizable number of listed companies are owned by families (Mohammad & Wasiuzzaman, 2020). In a family business, the founding family and other family members generally hold crucial positions and serve on the board of directors (Lotfi & Mohammadi, 2014). Family businesses are largely regarded to be the foundation of every economy (Aronoff and Ward 1995; Hoy and Sharma, 2010; Seaman, 2015). Because of the numerous restrictions imposed by the government, which also apply to SMEs, family enterprises cannot operate as usual. Additionally, family businesses and SMEs are unable to meet client demand, which lowers revenues (A. A. Alessa, T. M. Alotaibe, Z. Elmoez, H. E. Alhamad, 2021).

Due to the relentless spread of the Covid-19 infections, Malaysia was regularly placed under lockdown. MCO issued a directive ordering the closure of all public and private facilities, with the exception of those involved in providing crucial services, as one of its preventative measures (Godwin et al., 2020). One of the factors that could affect the success of SMEs, including family businesses, during the MCO period is the Covid-19 containment policy, which calls for the

complete shutdown of business operations and places an emphasis on reducing physical contact between customers and employees (McGeever et al., 2020). SMEs are experiencing severe losses as a result of the epidemic, and many of them are currently unable to survive. Family businesses which also affected by the pandemic going through many changes in order to survive. The obvious changes is digitalization which all the business related need to do via online due to the government orders.

Family SMEs in post-pandemic time

The earliest and most prevalent type of for-profit company is the family business. It is essentially a business that is typically run by several generations of family members who are linked through blood, marriage, or adoption. Family business owners can shape the direction of their company and create long-term objectives. They frequently participate in their company's management, organization, and leadership. Family businesses, however, may also include non-family members as co-owners (M. A. Camilleri and M. Valeri, 2021).

Few studies have been done on the sustainability of the family-based business following the pandemic; most studies in the past have concentrated on other industries including hospitality, tourism, and others. Many authors asserted that a family business involves relatives who are influencing or controlling the strategic course of a corporation. Others talked about the activities of family firms and illuminated the distinctive, interdependent, synergistic resources and talents that result from family involvement and relationships (Chrisman et al., 2005; Habbershon et al., 2003). Another study attempts to learn more about how family business methods have changed (Rivo-López, E., Villanueva-Villar, M. Michinel-Ivarez, M. Reyes-Santas, 2021).

Newer family enterprises have succeeded in challenging settings after the pandemic ended. Older people have endured events that have changed the world, such as wars, recessions, and natural disasters (PwC, 2020). The condition of SMEs during the post-pandemic is still not stable because they are still in the recovery stage. However, the usage of digital platforms continues since the consumer is comfortable with the new method of purchasing goods which is online. All the sectors in Malaysia slowly return to their normal conditions. The tourism sector becomes better since the endemic announcement and all the international gates open in stages. Through this study, the researcher wants to figure out whether the effectuation process and global SMEs recovering from the pandemic have any connection with government policies as the mediator.

Underpinning theories

Effectuation and dynamic capabilities theory

Decisions in economics and management may be debated at various levels, including the individual, firm, industry, market, and economy (Sarasvathy, 2001). As a result, Sarasvathy conducted research to learn how organizations are surviving, enduring, and excelling in their sector. According to Sarasvathy, the effectuation as a process of choosing amongst potential effects that can be produced by a given set of means and recommend to be used for uncertain situations. Since many businesses failed as a result of the epidemic, it is important to investigate effectuation, a topic that is not frequently discussed or studied in Malaysia. This theory will assist entrepreneurs to utilize any sources that they have in order to survive and recover from the pandemic effects. Researchers think this theory is relevant to be used in this study because entrepreneurs need to know how to use existing resources than find new resources to recover from the pandemic.

Other than effectuation, in this study another theory is dynamic capabilities which chosen as a supporting theory. In a seminal study, Teece et al. defined DC as "the firm's ability to integrate, build, and reconfigure internal and external competence to address quickly changing conditions" (Teece et al. 1997, p. 516). This theory has always been used by the previous researcher to explore its relevance for business model innovation (BMI). This theory is chosen because of the unexpected changes that happen due to pandemics that lead to innovations. When businesses operate in contexts where technological change is systematic and new products and services need to be developed to address market shifts, DC is particularly important for innovation strategy (Pisano and Teece, 2007). The researcher believes that the dynamic capabilities theory is most suited to support the effectuation theory, which is the major theory, which is why it was chosen. These two theories can be used to determine how entrepreneurs are surviving and recovering from the effects of COVID-19. Therefore, understanding this idea will help researchers in the future.

Affordable losses and survivability of the family business

Affordable losses are always tied to effectuation theory because it is a pillar of the concept. Business people often look for ways to reach their target markets with the least amount of time, effort, and financial expenditure, according to the affordable losses theory put forth by (Sarasvathy, 2009). In order to optimize profits, effectuation focuses on testing as many strategies as possible with the limited resources at hand. It establishes the maximum loss that can be tolerated (Sarasvathy, 2001). Many experienced entrepreneurs prefer not to use the traditional route to enter any markets because they will find the firm's flaws along the way after approaching the nearest potential clients from various demographic backgrounds. In the most extreme circumstance, the affordable loss principle translates into the zero resources to market principle (Sarasvathy, 2009). (Sarasvathy, 2009). Direct and genuine selling may be preferred over market research because it may open up a lot of new opportunities in other industries.

SMEs must immediately adjust to the situation during the pandemic. Since the MCO became effective, SMEs and family businesses have switched to digital marketing methods. The Malaysian government has launched a number of measures to promote SME digitization in light of the significance of the PERIHATIN Economic Stimulus Package, which includes financial assistance specifically targeted at SMEs (Prime Minister's Office of Malaysia, 2020). In order to maximise operational effectiveness and cost, SMEs must arm themselves with the necessary digital solutions and technology because the market has also become one without borders (K. G. Khai et al, 2020).

Control ability and survivability of Family SMEs

Sarasvathy elaborates on the processual logic of effectuation as an inversion of the logic of causality to show how the entrepreneurial opportunity process is predicated on control rather than prediction (S. Bhowmick, 2011). The entrepreneur starts with a set of accessible means and searched around to see what effects she can achieve with them before enhancing them with those of others who are willing to join her search, frequently changing the effects that can be produced. In successful circumstances, this iterative process converges into a genuine opportunity, and the entrepreneur does everything within their power to maintain control of the situation.

The effectuation principle's core argument that entrepreneurial action in such situations is based on control, which eliminates the need for forecasting, is the understanding that it is impossible to anticipate the future in the face of uncertainty (S. Bhowmick, 2011). Control is the major issue

of entrepreneurial effectuation, which is non-predictive as opposed to causality. Sarasvathy (2008) elaborates on the significance of non-predictive control in effectuation using the "affordable loss idea" and incisive analogies like the "crazy-quilt principle," the "lemonade principle," and the "pilot-in-the-plane principle." These concepts clarify effectuation reasoning and contain the non-causal actions of the entrepreneur previously described, such as setting fair loss limitations, forging strategic alliances, and profiting from occurrences.

SMEs and family enterprises can use the resources that are accessible when they know how to regulate the situation. Control is one of the elements of effectuation theory, according to Sarasvathy's idea of effectuation, in which corporations will employ all available means to accomplish their objectives.

Technological capabilities and survivability of Family SMEs

Technology capabilities are essential for businesses to have a competitive advantage, claim Burgelman et al. (2004). Since they may meet customer expectations and achieve more great company financial performance with this organizational link, new technologies have significant significance for SMEs in open innovation processes (Jean, R.J., 2007). Covid19 altered the way that commerce was conducted on a worldwide scale by moving all of the selling and buying operations online. A large percentage of SMEs are using this type of business strategy to attain sustainability in their environments (Kneipp, J.M.; Gomes, C.M.; Bichueti, R.S.; Frizzo, K.; Perlin, A.P, 2019).

Understanding the connection between technological and digital capacities has been the focus of recent investigations. According to Zhen et al. (2021), management skills affect digital aptitudes and business performance. However, in order to be effective, technical capability requires several financial and human resources (Salisu, Y.; Abu Bakar, L.J, 2019). Since they may meet customer expectations and achieve more great company financial performance with this organizational link, new technologies have significant significance for SMEs in open innovation processes (Jean, R.J., 2007).

Due to the coronavirus's ban on direct selling, the majority of SMEs underwent a digital transformation. SME managers must consider their awareness of and capacity for digitalization in order to speed up an organization's processes (K. G. Khai et al., 2020). Similar to this, SMEs with more advanced technological tools and a better understanding of their markets use digital tools like social media (Facebook, WhatsApp), online marketing (websites, e-commerce), and artificial intelligence (chatbots) to increase customer satisfaction, market share, and financial performance (Kumar, R.; Singh, R.K.; Dwivedi, Y.K., 2020).

Government policies and survivability of Family SMEs

The World Health Organization declared Novel Coronavirus (2019- nCoV) a pandemic on March 11, 2020. According to the International Monetary Fund (IMF), the Coronavirus pandemic will cause a global recession in 2020 that will be more severe than the global financial crisis of 2008-2009, Kose, A., Sugawara, N., and Terrones, M. (2020). In terms of the impact of the Covid-19 Pandemic, Malaysia, like the majority of other nations, has been severely impacted by the pandemic, forcing the Malaysian government to implement various necessary measures to mitigate the effects, particularly on the nation's economic and social activities (S. Tahajuddin, N. N. Sulaiman, 2021).

The Malaysian government responded to the coronavirus threat by implementing PRIHATIN, or the Prihatin Raykat Stimulus Package, to ease the financial burdens of people and businesses dealing with the pandemic (Ministry of Finance Malaysia, 2020), particularly with the enforcement of a federal government-issued movement control order (MCO). However, SME representatives have argued that the stimulus allocations were insufficient to assist SMEs (Fong, 2020). As a result, the federal government added features to PRIHATIN designed specifically for SMEs (Prime Minister's Office of Malaysia, 2020). Some SMEs applauded this relief (Radhi, 2020), while others noted that the stimulus only allowed SMEs to survive the MCO for an additional two months (Tan, 2020).

Aside from that, the Wage Subsidy Programme (WSP) introduced in PRIHATIN and managed by the Social Security Organisation (SOCSSO) was not adopted by some businesses because they prefer to retain the option to downsize or review salaries to optimize their workforce if the business's financial resources run out (V. Z. Yi, 2020). Several SMEs had difficulty obtaining the Special Relief Facility (SRF) for SMEs because banks prefer to work with existing customers (Free Malaysia Today, 2020). SMEs that do not file a business tax return with the Inland Revenue Board (LHDN) and do not register their companies with the Companies Commission of Malaysia (SSM) will be denied micro-grants and other government benefits. The lack of business registration prevents these SMEs in the informal sector from accessing SOCSSO, and thus cash hand-outs from PRIHATIN and the existing Bantuan Sara Hidup programme (Cheng, 2020). The government's new policies and subsidies assisted SMEs in surviving the pandemic. All of this occurred because the government requires SMEs to overcome the economic crisis and gradually recover from the pandemic.

CONCEPTUAL FRAMEWORK

Figure 1.0 below shows the conceptual framework which consists of dependent variables, independent variables, and a mediator.

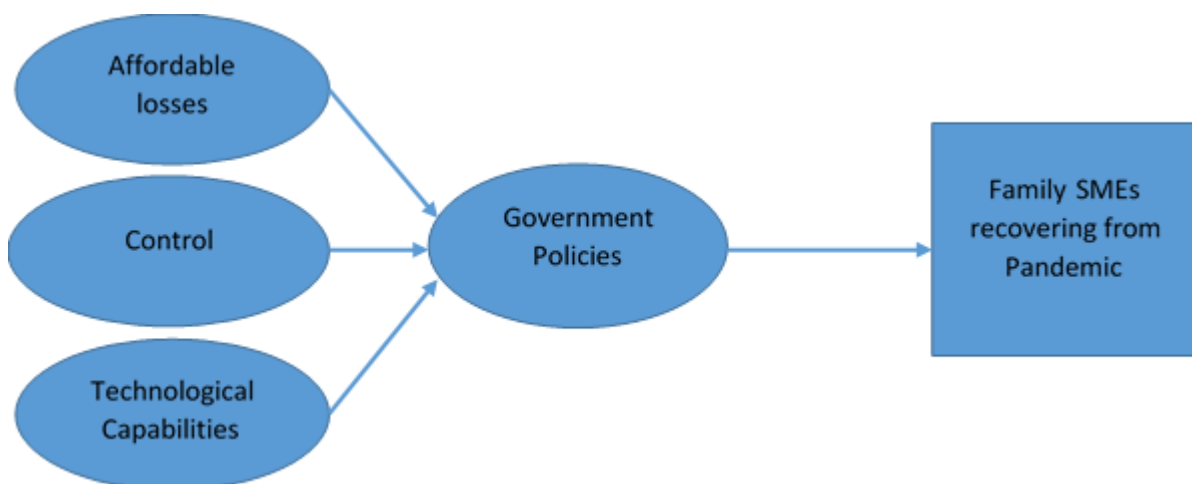


Figure 1.0 Conceptual framework

The conceptual framework is suggested in Figure 1.0 based on the literature. Studies from the past have demonstrated that effectuation theory is frequently employed to gauge decision-making. Even though this topic has been the subject of numerous studies, no research has been done on the recovery of family SMEs during a pandemic. As a result, an all-encompassing strategy is required to handle the influence of effectuation on entrepreneurs' decision-making. In

this study, Malaysian government policies would act as a bridge between the family SMEs recovering from the pandemic and the effectuation process. Following the literature review on the proposed study variables and the conceptual framework, the following hypotheses are proposed:

- H1: There is a positive relationship between affordable losses and family SMEs recovering from the pandemic.
- H2: There is a positive relationship between control and family SMEs recovering from the pandemic.
- H3: There is a positive relationship between technological capabilities and family SMEs recovering from the pandemic.
- H4: Government policies positively mediate the relationship between affordable losses and family SMEs recovering from the pandemic.
- H5: Government policies positively mediate the relationship between control and family SMEs recovering from the pandemic.
- H6: Government policies positively mediate the relationship between technological capabilities and family SMEs recovering from the pandemic.

RESEARCH METHODOLOGY

Methodology

This study will employ a quantitative design research method. The population for this study will be the family SMEs that survived the pandemic. The samples also must include family businesses. All participants must be established in Malaysia. The data of this study will be analyzed using the structural equation modelling partial least square (SEM-PLS). The detail of the data collection procedure is listed in Table 2.0.

Table 2: Data collection procedure

Target population	Family SMEs survived from pandemic
Sampling	Family SMEs
Method of sampling	Convenience sampling
Research technique	Quantitative technique
Data collection method	Distribution of questionnaire

The researchers chose Family SMEs as samplings because there are only several studies that found about Family businesses although they are one of the biggest resources of SMEs to contribute to the country's GDP. The method that will be used also convenience sampling at that moment whether via Google form or physical questionnaires. The quantitative technique will be used for this study and the data collection method is through the distribution of the questionnaires. The sampling technique that will be used is convenience sampling. The method is proper in whatever current condition.

Instrument

The information from the family SMEs that survived the epidemic will be gathered using a four-section questionnaire. Screening questions will be covered in Section A. Their ability to survive the pandemic will be covered in Section B, and their ability to recover from the epidemic will be covered in Section C. Section D will ask about the respondent's demographic profile last but not

least. The instruments of the effectuation process and SMEs recovery will be adopted and adapted from (I. Deligianni et al., 2015). Seven-point Likert scales will be employed for these items, ranging from (1= very strongly disagree to 7= very strongly agree).

Reliability and Validity

This study will conduct the reliability and validity test before conducting the actual data collection process. For improving the reliability, four criteria will be followed by the researcher which is: (1) configuring all constructs, (2) improving measurement levels, (3) using some indicators, and (4) conducting pilot studies. As follow the rule of thumb by Sekaran and Bougie (2010), reliability is less than 0.6 is considered poor, while 0.70 is acceptable and more than 0.8 is good. The scores for items below 0.70 will be deleted or filtered.

CONCLUSION

Significant academic contributions to the body of knowledge will be made while this study is still being investigated by evaluating the hypotheses, determining whether they are supported or rejected, and linking the findings to empirical data taken from the literature. From a practical standpoint, businesspeople, academics, and researchers may pay attention to the findings by, for example, using this new model to assist Malaysia's family SMEs in coping effectively with uncertainty in the future. Additionally, this study will enable the authorities to strengthen their shortcomings and alter the appropriate regulations to better support SMEs in surviving any unforeseen circumstances.

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Factors Influencing the Performance of Supply Chain Management in Products Subsidies Liquefied Petroleum Gas (LPG)

Nur Izzatul Adibah binti Mohd Shahrizan¹

Suhaila binti Abdul Kadir²

Shah Iskandar Fahmie bin Ramlee³

^{1,2,3}Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan
Correspondence Email: adibah.a19d030f@siswa.umk.edu.my

ABSTRACT

The majority of businesses today understand how crucial the supply chain is to their operations. Universal access to LPG for household to growth the socio-political and economic development by 2030. Service providers worldwide should try to improve the environment and supply chain system in order to meet these objectives. A comprehensive literature review was pushed forward to examine the LPG industry, supply chain management definition and factors that can influence the performance of supply chain management which eventually could lead harm to the LPG supplier. The literature shows that number of factors influence supply chain management performance such as environmental uncertainty, information technology, supply chain relationships and customer satisfaction. The findings of this research will help businesses discover supply chain strategies to improve performance in the Malaysian LPG cooking gas market. Further research can develop a theoretical framework on how to enhancing supply chain management performance.

Keywords: Supply Chain Management, Performance, LPG, Malaysia.

INTRODUCTION

Liquefied petroleum gas (LPG) has been declared an essential product in Malaysia under Petroleum Development Act 1974 and Control Supply Act 1961. According to The World LPG Association, global LPG industry is highly dependent on cylinders and approximately 2 billion of them in circulation worldwide. Governments around the world have utilised subsidies as one of many policy instruments to create economic, social, and environmental value (Mittal, Argarwal & Selen, 2018) and that they exist in several economic sectors such as agriculture, fisheries, energy and gas. In Malaysia, since 1983, the subsidy has been in existence as a measure to lighten the burden of the rakyat's living expenses. The cylinders, which are used as cooking gas, are available in weights of 10, 12, and 14 kilogrammes, with a national average retail price of RM1.90 per kilogramme (Ministry of Domestic Trade and Consumer Affairs). The difference in prices between subsidised domestic LPG and commercial LPG (sold at market price) encouraged intermediaries to divert subsidised LPG for commercial purposes (Mittal, Mukherjee & Gelb, 2017). The government is expected to subsidize petroleum products, liquefied petroleum gas (LPG) and cooking oil up to RM8 billion for 2022 to minimize the effect of rising commodity prices on people's standard of living (Maisarah Sheikh Rahim, 2021. Peruntukan subsidi petrol, LPG, minyak masak RM8 bilion tahun ini. Utusan Malaysia, 12 Jun.). Subsidized LPG is packaged in C10, C12 and C14 steel bottles (Jonathan, 2012). This special cylinders is dedicated to subsidized LPG. There are other cylinders in circulation with different

characteristic, namely 12kg (issued by the BHP company only), 14kg and 50kg bottles, which pack LPG without subsidy for commercial and industrial use and F14 (14kg LPG cylinder for forklift) (Sources: Ministry of Domestic and Consumer Affairs' statistical data, 2019). Universal access to LPG for household to growth the socio-political and economic development by 2030. Service providers worldwide should try to improve the environment and supply chain system in order to meet these objectives (Sangeetha A, 2020). Inadequate distribution of LPG under the control and responsibility of filling depots or distributors may be the main reason of improper LPG distribution (Santoso et. Al., 2015).

Figure 1.1 below show the supply chain of LPG in Malaysia that has six main components. These are the production process starts with oil and gas from production plant or import then the mass quantities are transported by ship, rail and pipeline to refinery plant to refining of the LPG from oil. Next, the ships, rail, trucks, and pipelines are used to transfer fully processed LPG to markets and refilling plants. The LPG is either used to fill LPG gas cylinders or it is stored in bulk LPG depots. Last but not least, delivery trucks and bulk LPG tankers are utilised to transport LPG for distribution in LPG cylinders.(Embarking Journey of Surveyor,2017) to domestic user and industrial and commercial user.

Table 1: LPG Supply Chain in Malaysia



Sources: Ministry of Domestic and Consumer Affairs' statistical data, 2019

The Structure of the Malaysian LPG Supply Chain (resources: Ministry of Domestic and Consumer Affairs)

The LPG supply chain can be separated into four levels based on ownership and business procedures, each having its own internal and external environments. Producers and importers are found upstream. Based on contracts including just B2B agreements, the manufacturers and importers sell LPG to six LPG suppliers in Malaysia, which is at the second level of the supply chain. The business between these tiers is not handled by the Malaysian government.

Six LPG suppliers in Malaysia will refill at their own plants or sell to third parties where to become a third-tier member, the company is required to submit an application to the LPG supplier, who will approve or reject the application and apply for a license from Ministry of Domestic and Consumer Affairs where under the provisions of the Control Supply Act 1963. PETRONAS

monopolizes filling plants in Malaysia where it owns eight filling plants throughout Malaysia. They sell the filled LPG cylinders to the businesses at the fourth (and last) floor.

The LPG cylinders is then sold to customers at the fourth (and final) level of the supply chain who utilise the LPG cylinders for domestic cooking. The fourth level's businesses purchase bottled LPG from the third level. According to the terms of the transaction, full cylinders from the third level companies must be exchanged for empty cylinders from the fourth level enterprises. Similar to third level membership, a corporation must submit an application for licensing in the fourth level to the Ministry of Domestic and Consumer Affairs along with a letter of support from the primary supplier. There are auxiliary firms that provide logistics and transportation in addition to the companies in these four categories.

In addition to the official structure of supply chain levels described above, the Malaysian LPG supply chain also recognizes one additional, unofficial level. Sub-agents are the companies operating at this level. This level's existence causes a number of issues. The supply chain is not designed to include the service that this level offers, so the cost of that service is passed on to customers. This fee is the cause of the government's planned LPG retail price being violated. According to many sources, this level includes the businesses that actually give customers access to the subsidies. Despite being unlawful, this level really plays a crucial role in the distribution of the LPG that is being subsidised. This level will be formalised in this study order to represent an actual functioning supply chain.

This research is highlight the factors influencing the performance of supply chain management of controlled product on LPG in Malaysia. The study considers that the four factors have the significant influence on supply chain management performance. The factors of supply chain management which involved environmental uncertainty, information technology, supply chain relationships and customer satisfaction may have a significant effect that related to supply chain management performance.

According to Zhalechian et al. (2017), supply chain performance evaluating the supply chain's manufacturing strategy, demand changes, timeliness, and cooperation mechanisms. The objective of this paper is to examine the factors influence supply chain management performance of controlled product on LPG in Malaysia. The findings of this research will help businesses discover supply chain strategies to improve performance in the Malaysian LPG cooking gas market.

LITERATURE REVIEW

Supply Chain Management (SCM)

Supply chain management understood as the identification of the strategic nature of specific coordination within the organization and across network partners in supply chain to improve organizational performance and the overall SCM performance (Tarigan et al., 2019, Ardiano et al., 2020). With the aim of minimising costs, supply chain management entails managing, regulating, planning, controlling, and developing items from design and purchasing to production and delivery to the final consumer (Afolayan, et al., 2018, Putra, Tarigan & Siagian, 2020). In order to increase productivity, supply chain management's short-term strategic objectives are to decrease cycle times and inventories, while its long-term objectives are to increase profits by increasing market share and customer satisfaction (Mabrouk et. al, 2020).

Based on the literature of SCM, there are many factors that affect SCM performance and in this research are environmental uncertainty, information technology, supply chain relationships and

customer satisfactions. Efficiency and responsiveness are the two components of the SCM performance indicators.

Supply Chain Performance

Supply chain performance is a crucial aspect of an organization's successful operation in supply chain management literature (Fatorachiana & Kazemi, 2020). Therefore, the development, implementation, and monitoring of strategies are all aided by the timely and effective evaluation of the supply chain (Kamble & Gunasekaran, 2019). Najmi and Makui (2012) analyse flexibility, dependability, responsiveness, quality, and asset management to measure supply chain performance. Similar to this, Bourlakis et al. (2014) take into account performance measures for quality, responsiveness, adaptability, and efficiency. According to Dreyer et al. (2016), a different method of measuring performance gains takes into account diversity, innovation, timing, cost, and availability.

Supply Chain Efficiency and Responsiveness

The supply chain is crucial for understanding corporate strategy as well as for thinking about operational effectiveness (Andrew Cox, 1999). According to Nikfarjam et. al., (2015) Supply chain efficiency is one of the key performance variables that can have a substantial impact on the growth of a supply chain and result in competitive advantages. Efficiency in the supply chain is described as cost savings in the areas of production, planning, sourcing, and customer delivery and responsiveness is described as the velocity at which a supply chain provides products to the customer (Prahasto et. al., 2010). Depending on the organization's power to reduce waste and fully utilise resources, efficiency pertains to the ability of a corporation to provide goods and services for immediate consumers at relatively low overall cost (Saurav Negi, 2020). According to channels, Quick time-to-market, the ability to scale up or down within certain time constraints, and the ability to quickly internalise client preferences are all signs of responsiveness (Adivara et. al., 2019).

Environmental Uncertainty

For the past few decades, operations and business research have viewed uncertainty as a phenomenon that is inextricably tied to the widest range of company activities (Wernerfelt and Karnani, 1987; Buchko, 1994; Courtney et al., 1997; Miller and Shamsie, 1999; Lopez-Gamero et al., 2011, Zimmermann et. al., 2019). The external factors that could potentially influence a firm's performance are all included in the corporate environment, including suppliers, customers, competitors, governmental organisations, and social pressure groups (Daft, 2010; Wagner & Hollenbeck, 2014; Robbin & Judge, 2013; Astuty et. al., 2021). Companies must develop to comprehend and adapt to environmental changes in order to meet such unexpected changes (Wang et al., 2011; Mabrouk et. al., 2020). Understanding and responding to the environment effectively is essential for company to improve its supply chain advantage.

Information Technology

Systems are essential to organizational growth because they help organizations cut costs, boost productivity, efficiency, and effectiveness, enhance the quality of their goods and services, and improve decision-making (Tarafdar & Qrunfleh, 2016). Earl (1989; Sufian, 2010) proposed that the company strategy should be the source of the information sharing strategy. This implies that information technology should make it easier to implement the company plan, whatever it may be, and aid in achieving its objectives (Sukati et. al., 2012). The usage of information technology in the supply chain management process is extremely appropriate that can produce a better

supply chain practice. Information technology is defined as a comprehensive set of information resources that can be utilized for business process to meet its objectives and needs (Tarigan et. Al, 2019). Useful information technology connections increase integration between supply chain partners in terms of material flow (Jiputra et. al., 2020) and according to Adivar et. al., 2019, the continued growth and improvement of the supply chain have been significantly influenced by increasing efficiency through emerging technology. Realizing information sharing among supply chain businesses can enhance the overall efficiency and synergy of the supply chain's operation besides allow businesses to take prompt action to gain a competitive edge (Han & Zhang, 2020). Therefore, companies are investing in technical advances to provide efficient communication channels and collaboration procedures to ensure effective information sharing. As a result, improved information sharing will boost supply chain performance (Govindan et. al., 2017, Fatorachiana & Kazemi, 2020).

Supply Chain Relationships

Syncing supply chain management procedures is primarily concerned with customer satisfaction. In essence, all supply chains compete with one another for consumers of the provided goods and services. According to Handfield, R., & Nichols, 2002, making suppliers a part of the business strategy is one of the keys to good supply chain management in order to satisfy the expanding market. A strategic supplier partnership, as used in this study, is described as a long-term cooperation between an organisation and its suppliers that influences the strategic and operational capabilities of each participating company to aid in the realisation of meaningful recurring benefits (Li et al., 2005; Li et al., 2006; Monczka et al., 1998, Sukati et. al., 2012,). Effective integration between the organisation and its suppliers is necessary for strategic supply chain relationship; businesses typically have long-term relationships with suppliers who add value. Relationship with suppliers and relationship with customers are considered in this factor (Sáenz et al., 2018).

Customer Satisfactions

In marketing literature, the interaction between buyers and sellers has been explored, and it is considered that this contact leads to satisfaction (Anderson & Narus, 1990, Hsin Hsin Chang et. al., 2014). Retailer satisfaction with the distributor is tied to the built-in logistics system, which allows for the availability of all products required by retail (Jiputra et. al., 2020). Besides the fact that satisfaction affect morale of channels, it also plays a role in how well the activity of the channels operate collectively (Lai, 2007; Anisimova & Mavondo, 2014).

RESEARCH METHOD

This quantitative study plans to adopt survey as the methodology. As per discussed in the literature, there are four elements in identifying the factors influencing the performance of supply chain management in LPG in Malaysia. The questionnaire composed by several parts including the measurement of environmental uncertainty, information technology, supply chain relationship and customer satisfaction. These four elements were adopted from Prahasto et. al. (2010) and Mabrouk & Jarraya (2020) with minor adjustments to fit, suit, and maintain the applicability of the study's environment. Additionally, data on the respondents' gender, age, number of years in business, and brand of LPG product will be obtained in order to create a descriptive conclusion for the article. The sending of a questionnaire through email to the intended respondents will yield the quantitative and primary data. The respondents will be Malaysian LPG sellers. The 5-point Likert scale will be used to measure every variable. With five separate scale rates ranging from (1) for strongly disagree to (5) for strongly agree, it is used to

gauge how much people agree or disagree with the provided statement. From the survey conducted, it is expected to achieve the objective of the study.

CONCLUSIONS

Even though this is a conceptual paper, it is anticipated that the information contained within will supplement existing literature, be useful for researchers' research, and have a significant impact on all LPG players, educational institutions, and the ministry as policy makers regarding the control product of LPG in Malaysia. Furthermore, the results open a door to the investigation of the connection between the variables put forth and the elements affecting the effectiveness of supply chain management in LPG product subsidies, specifically in Malaysia. Future empirical study will require the exploration of a wider range of literatures in order to gain more in-depth understanding.

ACKNOWLEDGEMENTS

I thank Allah SWT, the Most Gracious and the Most Merciful, for giving me with the strength to complete this paper. My sincere gratitude goes out to my supervisor and team for all of their help with this paper's preparation, including moral support, teamwork, and direction. Additionally, I would want to express my gratitude to my superior, for the constructive advice during completing this paper.

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Performance Of Public Sector Infrastructure Projects in Malaysia: The Role of Project Governance Through Stakeholder Management And Benefit Management

Mohd Nor Ismail¹
Razli Che Razak²

Faculty of Entrepreneurship and Business, University of Malaysia Kelantan, Malaysia.

ABSTRACT

It is widely acknowledged that the elements of stakeholders' management, project governance and benefit management are the recipe for success factors in project delivery. Nonetheless, its functionality in measuring the performance of public sector infrastructure projects yet to be fully endeavour and explored. However, since the last decade whether in projects, management portfolio or programme the governance of public sector projects has become a popular topic to be discussed and to ponder with. It has gaining wide popularity to discuss among policy makers focusing on how to attain the success in designing, selecting, or approaching and implementing government funded public sector infrastructure projects. When we talk about managing the benefit of the project we shall focus on the actual results in relation to the expectations so that to define whether the benefits are delivered to the customers or stakeholders. Though it is a delicate process with high complexities, this research try to explore the relationship between roles of project governance through stakeholders' management and benefit management in enabling the public sector infrastructure projects in Malaysia successfully executed.

Keywords: Stakeholders; Management Portfolio; Designing; Governance; Infrastructure

INTRODUCTION

Background of the Study

Malaysian government has initiated numerous development projects since the independence. The projects were planned and executed continuously in progressively developing the nation and for benefit of the people. Unfortunately, majority of the projects have failed due to one reason and another, sometimes for unclear reasons. Time, cost, project scope and quality are pertinent issues that need to be significantly address in project deliverables. Practitioners and research scholars have made various effort and endeavoring on how to improve the performance of projects by zooming on project team member's capability, inventing the techniques and developing the tools for project management and its base (Besner & Hobbs, 2012). Infrastructure projects are distinctive, extraordinary, innovative, productive and complex in their own field. Project cost overruns seems to be another dominant factor in attribution to these failures. Since early 1900s project cost overruns has been prevalent issues especially in when we consider large scale projects. With the advancement and availability of cost estimation and control techniques yet the cost overruns problem are still persistently increased for the last seventy years (Flyvbjerg, Bruzelius, & Rothengatter, 2003). Fortunately, the assessment of projects success has enter new dimension by considering stakeholder management and emphasizing on governance, benefit management. Obviously, this will enhance their ability to

achieve the strategic management goals over periods of time. The notion of governance has also been linked to the projects in the last few decades and some of the relevant aspects have been addressed, i.e. guidelines have been developed to support and guides the project by 'governance of project management' (APM, 2004; PMI, 2016a). As such, the industry are in dire needs to explore the methods in enhancing project management and performance. These are very much related to project governance as a catalyst to improve the project performance. Effective project governance can give significant impact on profit as shown by a lot of studies (Crawford et al., 2008). The outcome of the research studies have shown that the project with effective project governance can escalate the profit up to 20% if compared to project without governance (Wilson & Pollard, 2009).

Biesenthal and Wilden (2014) found that the successful project delivery is very much related to enhancement and prioritizing of project governance. This conclusion is made after analyzing 62 articles published in non-project management related journals and 34 published articles in the top project management journals. Project management scholars have recommended that project governance as a new methods to solve the problems in project management (Cicmil & Braddon, 2012; Flyvbjerg, 2013; Garland, 2009; T Williams & Samset, 2012). The importance and necessity of project governance is gaining more popular in recent years. By adapting project governance, project initiative can be executed successfully if we compare to ineffective project governance that will resulting in project failure (Garland, 2009). The salient features of project governance is to resolve and mitigate the conflicts. Thus, it will establish the reliable project performance by developing methods and measures separate sets of institutional arrangements (Henisz, Levitt, & Scott, 2012). Formal and informal institutional together with mechanism process are normal combination for project execution. It has strong relationship within different project stakeholders (Levitt, Henisz, Scott, & Settle, 2010). The project governance must be effective in ensuring the development of infrastructure project to be successful. Ineffective governance will result in failure of huge capital projects (Flyvbjerg et al., 2003). Moreover, the degree of uncertainties and complexities are commonly encountered in infrastructure projects. Nowadays, infrastructure is very vital in many parts of the world especially in developing countries. They are distinctive and strongly related to unique social bonding together with consideration of environmental rules and regulations (Guo, Chang-Richards, Wilkinson & Li, 2014).

Nowadays, construction industry has been considered among the massive industries around the world. This industry has contributed around 10% of global economy index (Savita Sharma & Goyal, 2014). Hence, the fulfilment of infrastructural needs is a pivotal role in leveraging the economic growth of many countries in the word. But it has been observed that the uncertainties involved in this project are not being addressed and managed professionally (Savita Sharma & Goyal, 2014). Infrastructure is considered the pillar of development in most parts of the world, every nations have made this sector among the priorities in tabling the annual budgets. The allocation and investment in the infrastructure segment is imperative in boosting the economy and elevating the living standards of people in that particular country (Chi, Ruuska, & Zhu, 2016). Across the globe, infrastructure projects are developed continuously and have shown significant impact in increasing foreign direct investment (FDI) to the country (Chi et al, 2016). Infrastructure project involve various factors such as human and non-human. The elements of uncertainties and lengthy timelines with attribution to numbers of stakeholders (Choudhry, Aslam, Hinze, & Arain, 2014). Infrastructure project involves complexities and uncertainties because of stringent environmental rules and regulations imposed by the government. Social consideration due to polar uniqueness in Malaysia has contributed to the complexities of infrastructure project. So with the complexities that exists the projects are subject to series of conflicts and eventually resulting in failure. Generally, infrastructural projects are very much related to interaction

between social and people itself. This will involve the highly transient human systems. If we consider mega infrastructural projects, the attribution factors that govern are uncertainty, complexities, long life cycle and numbers of stakeholders. Thus it will considerably impact the economy, community, environment and technological development (L. Zhai, Xian, & Cheng, 2009). The main characteristics of infrastructural development projects are complexities, unquantifiable externalities and negotiated compromises, and large irreversible investment (Levitt et al, 2010). Hence, in order to make the delivery successful the crucial important factors are good decision making, identifying the dilemma, prudent decision making, developing options or alternative solutions and recognizing the likely impacts of the projects (Priemus, Flyvbjerg, & van Wee, 2008). Specifically, the governance mechanism will assist in mitigating the conflicts and risks that give the impact on targeted achievements and expected results of projects activities. Hence, the efficiency of infrastructure projects can be enhanced by by managing the ambiguities, resolving it in integrated manner so as to achieve the success of the project via effective governance. In discussing the role of project teams for infrastructure project, the team has to manage complex activities such as managing the stakeholders. The stakeholders have power and passionate interest in the particular project (Hietbrink, Hartmann, & Dewulf, 2012).

Most of the time the fragmentation exist because various stakeholders participate in the implementation of the project. Various stakeholders involved in the initiation of the implementation process of public sector infrastructure project. For the project, effective stakeholder management has increasingly essential (Parnell, Driscoll, & Henderson, 2011). Stakeholder management has been considered to be extremely important for attaining project success (Beringer, Jonas, & Kock, 2013). To ensure project success, it is very important to involve the stakeholders in the projects and also understand their needs and requirements (Aaltonen, Jaakko, & Tuomas, 2008). On the other hand concept of benefits management has been widely acknowledged as useful approach nowadays. It combines the forces that clustering all the management strategies (Bradley, 2016). Benefits Management, also known as Benefits Realization Management, was previously being used in enhancing the success of Information Technology projects (Chih & Zwikael, 2015). It is known that large sum of money has been spent on project unfortunately most organizations ignored to practice of benefit management. On the other hand the benefit management can be used as a base for effective and enhancing performance of the organizations (Zwikael & Smyrk, 2015). It can also identify and recognize the responsibility of project owner in achieving better benefits acquired from the project. But the truth is many organizations failed or at least struggling to adapt holistically the benefits management and approach resulting they are unable to harvest the return of investments (Brame & Barlow, 2010; Breese, Jenner, Serra, & Thorp, 2015). Project Management Institute (PMI, 2016b) in terms of high level maturity benefits realization remains at 17% and constantly stable for the period from 2014 to 2016. It is also reported by PMI that approximately 50% of organizations reaping frequent benefits in tandem to strategic objectives. Normally benefits are acknowledged at initial stages of the projects but slowly faded and less managed at later stages (Ashurst, Doherty, & Peppard, 2008). By applying the process of assessment and comprehensive benefits management, the organizations are able to reap the maximum return of investments (ROI) (PMI, 2016c).

Through practicing benefits management the organizations can identify and define the project needs and its acceptance criteria. Risk identification, proper engagement of stakeholders and the process of benefits realization can also be attained (Bradley, 2010). Moreover, the investments objectives when venturing into the projects can be achieved (Coombs, 2015). Benefits management are useful tools in measuring the overall project performance and yield positive impact on the successful project investment (Cooke-Davies, 2002). Similarly, according to PMI (2016c) proposed that benefit management is good practice in measuring the

performance of management and investment performance. In achieving satisfying project performance goals the benefit management has to be combined with other management program and portfolio (Bryde, 2005; Serra & Kunc, 2015). Combination of benefit management strategy couple with corporate governance process will elevate the ability in managing success criteria (Serra, & Kunc, 2015). To achieve expected outcome, the establishment of governance structure in maintaining the focus on project shall be emphasized (Zwikael, Smyrk, 2011). Project governance is considered most significant factor in achieving project effectiveness in corresponding to approach of benefit management (Bradley, 2016; Doherty, Ashurst, & Peppard, 2021; Hesselmann & Kunal, 2014; Paivarinta, Dertz, & Flazk, 2007; Sankaran, Remington, & Turner, 2008). Effective benefit management can be attained by applying comprehensive governance framework which provides the accountabilities (Ahlemann, Hesselmann, Braun, & Mohan, 2013). Lately, much attention has been focus in literatures with regards to infrastructure projects for public sector performance measurement. In recent years due to high demand in improvement, accountability and organization effectiveness in public sectors, has driven the project management environment to become more vital and essential in public sector performance effectiveness measurement. Indeed we are in dire need for better understanding of project management practices with regards to project governance and benefit management with regards to developing countries. In Malaysia, Economic Planning Unit (EPU) under the Ministry Of Finance has been in charge of the appraisal of public sector infrastructure projects. The government has put enormous effort to build infrastructure projects but the available resources does not meet the demand of effective initiation to such implementation process of that particular project.

Problem Statement

In many countries, national economy are usually generated by high magnitude development of public sector projects. If the economy is strong and GDP is high, many development projects can be initiated by the government to lift the standard of living. Unfortunately, the records has indicated that numerous projects are not well managed even though the principles of established project management has been followed (Patanakul, Kwak, Zwikael, & Liu, 2016). This public sector projects come with enormous budgets, numerous stakeholders, lot of uncertainties and long life cycle resulting the projects are challenging to plan, difficult to be manage effectively and executed (Patanakul, Kwak, Zwikael, & Liu, 2016). In previous studies there are many evidence mentioning that public infrastructure projects have poor performance in schedule, cost and deliverable quality Patanakul, 2014). Furthermore, many surveys and studies indicate that success rate of deliverables for infrastructure projects remained at lower phase (Sirisomboonsuk, Gu, Cao & Burns, 2018). According to Kwak, Walewski, Sleeper and Sadatsafavi (2014) the factors affecting the unsatisfactory performance of government projects are mainly attribute to interdependence of different elements, structural complexity and ambiguities in goals and means. All governments in the world are facing limited budgets constraint especially in developing countries (Chin & Zwikael, 2015). Nowadays, the government, consultants, project managers and contractors are feeling dismal and in great distress due to ineffective project performance. It is easy to understand because if the performance is not effective or satisfying then it will incurred the cost implications at least. Hence researchers, technical authorities and Project Management Institute (PMI) have combined their effort make the improvement on performance of governmental projects via “Government Extension to the PMBOK Guides” which focus on government projects (Patanakul et. Al., 2016). Moreover, the literatures on portfolio, project management and programme are lacking in terms of holistic treatment to the theme i.e. governance framework (PMI, 2016a). Most of the research published in project governance are qualitative studies and there are few places of evidence of the quantitative relationship between project governance and successful project implementation

(Joslin & Muller, 2015). In terms of developing economies, the execution of public sector infrastructural project has been radically emphasized. After all the project management professional in developing countries have paid less attention even the public sector infrastructure projects are significant (K.Khan, Turner, & Maqsood, 2013).

As what normally encountered in developing countries, the issues that are differentiating to the existing setting such as complex process, scarcity of resources and skills, numerous stakeholders, weak procurement systems and bureaucratic red tape are very typical (Ahsan & Gunawan, 2010). Poor record of stakeholder management in construction industry occurred in many countries in the world (Olander, & Landin, 2005). As such, there are requirements to study, examine and analyze the stakeholder management and impact on performance of public sector projects. Like other developing countries, Malaysia also facing serious issues related to project management. Although various researches on project management has been done, it is found that the research on project governance in public sector are insufficient and insignificant. Although the Malaysian government are making efforts at different levels to improve the performance of the development projects via various programme but no significant improvement has been achieved so far in the performance of projects (RM Ahmed & Nor Azmi Mohammad, 2014; A.Khan et.al., 2019). Project failure usually occurred due to ineffectiveness in the organizations mostly at all levels (RM Ahmad & Nor Azmi Mohammad, 2014). For public sector infrastructure projects in Malaysia the average planned time to complete the projects are 24 months but in reality it takes about 30 to 50 months for handing over or CPC to be issued (RM Ahmad & Nor Azmi Mohammad, 2014). Top level management normally not much involve in working procedures because the existence of gap in working environment. This gap arises due to extensive centralization and layers of management (Haque & Anwar, 2012). Unsatisfactory performance in public sector infrastructure projects are mainly due to conflicts of interest between stakeholders i.e. the funding agencies, consultants, project directors and contractors. The ineffective governance also attributed to the unsatisfactory performance (RM Ahmed & Nor Azmi Mohammad, 2014; A Khan et.al., 2019). Considering studies in Malaysia's planning system, it has indicated that the governance of public sector infrastructure projects have acute weaknesses. These drawbacks involved in stakeholders' management, inappropriate planning and governance aspects. As such, rigorous strategies must be applied to overcome the problems and create the improvement to ensure the projects are successfully carried – out (RM Ahmed & Noor Azmi bin Mohamad 2014). Construction industry develop with high demand on new technology and different management approach. As such, the customization of stakeholders in managing the projects shall be in tandem with this growing demand. So the needs of standard approaches with regards to project governance must be exercised as every projects is targeted to be successfully completed (R. Maller, Zhai, and Wang, 2017). Currently, large sum of moneys has been invested by organizations on projects hoping that they can reap maximum return. The organizations also hope to reap the benefits from the projects, minimize the failure and eventually the organizations will end up with success.

Recently, a few scholars has carry out the research and some investigation in determining the project success and its relationship to benefit management (Serra & Kunc, 2015). Unfortunately, there are literatures scarcity in finding whether benefit management does somehow or rather effect the project performance. Recent literatures do not fully explore with regards to governance mechanism, the adaptation and implementation of benefit realization practices (Doherty et al., 2012; Hesselmann & Kunal, 2014). Similarly, very few empirical studies that investigate the relationship between project governance, project performance and benefit management of public infrastructure projects. So the main focus of this study is to investigate the interrelationships between project performance of public sector infrastructure projects, benefit management and project governance in Malaysia. Apart from the affiliation of project

governance and project performance, the present of stakeholders that govern the issue and play a vital role. Stakeholders can be determinant factor and giving an impact if the researcher wish to find the attribution between project governance and project performance. Unfortunately this factor has seemingly neglected in most literatures. Multicultural and multiracial communities in Malaysia are significantly complex. It is also differs in public sector organizations and cultural conditions compared to other developing countries and economies. As to researcher's knowledge, there are limited studies that have been theoretically and empirically tested through the moderation of stakeholder management in public sector infrastructure projects. Thus, the moderation of stakeholder management is another gap, that this study aims to fulfil and the contribution to project performance. Moreover there is a deficiency of theories related to project governance which discusses the complex link between the project and the organization and classifies the procedures through which project governance improves the project success (Musawir, Serra, Zwikael, & Ali, 2017). This research gap is a salient factor for identifying this study and highlighted the need to develop a mechanism for project governance and performance through stakeholder management and benefit management in public sector infrastructure project.

LITERATURE REVIEW

Project governance has become an essential topic for debate in project literature, and organizations have used this approach to meet organizational goals and objectives. Organizations initiate projects with the best of intentions to succeed, but due to the governing and managing issues, many projects fail, and the reasons are often unclear (A. Khan et al., 2019). Traditionally, the outcomes of projects have been measured in terms of completing them within the constraints of scope, time, cost, and quality. However, increasingly, assessments of projects are being expanded to governance, to include their ability to achieve strategic goals over considerable periods. The term "governance" is derived from the Greek verb 'Kubernao,' which means to steer. It is defined as the "act of governing or directing the policies, management, and activities of an organization at the highest level, with the authority, credibility, and responsibility to do so." Irrespective of an industry or sector, establishing a governance process is important and ideally the first step in a project's development.

Governance

Governance is defined as "the use of institutions, structures of authority, and even collaboration to allocate resources and coordinate or control activity in society or the economy (Klamegg, Williams, Magnussen, & Glasspool, 2008). Governance is a system by which an entity is governed, directed, and controlled (McGrath & Whitty, 2015). It plays an essential role in determining organizational functioning. From IT governance to e-governance, from public governance to corporate governance, governance can mean differently to diverse people (Kelly, 2010). Governance structures, define and create subsystems for operating procedures and are devised to ensure the common direction of the distributed effort (Schroeder, Pauleen, & Huff, 2012). Meso, Datta, and Mbarika (2006) have further emphasized that governance raises the issues associated with economic and social responsibilities and collective actions for power dependence among related institutions. According to Hjelmbrekke, Klamegg, and Lohne (2017), governance is basically about leadership selection, incentives, control systems, and monitoring. In an international context, governance means how power is used to cope with the country's social and economic resources for development. Governance mechanisms can be categorized as internal and external governance, and it is essential to differentiate between them because they have different governance mechanisms and the authority for their management also belongs to different groups (Weir, Laing, & McKnight, 2002). External governance framework

sets criteria, activities, and other obligations, which the society expects to follow from the organization (Weir et al, 2002). Internal governance is a set of mechanisms and procedures used to organize, manage, and govern within the organizations. Project governance recommendations have started to address the connection between internal governance and the achievement of the intended objectives (Kelly, 2010). As an internal governance mechanism, project governance provides the structure to set the objectives of the project and the means of achieving the objectives and monitoring the performance.

Governance incorporates different stakeholders from NGOs, business, and government to work together to attain common goals (Stoker, 1998). The concept of governance raises the issues related to economic and social responsibilities and collective actions for power dependence among related institutions and getting the things done not depending upon the governmental machinery (Meso, Musa, Straub, & Mbarika, 2009). Garvin (2009) has stressed the motivation of stakeholders for project goals towards achieving good governance. An attribute of good governance has the aptness to navigate the projects through different uncertainties and unexpected events (Miller & Floricel 2000) The academic-research perspective has also befitted that governance is an important concern of sponsors for mega investment and, subsequently, it affects the project outcomes (C Sharma, 2012). In a nutshell, governance is a function of developing strategies, overseeing needs and objectives, making decisions concerning projects and following up on performance across the organization. The common objective of governance systems is the elimination of project failure and possible repetition of these systems in future public projects (Guo et al., 2014). Corporate governance is the most common field of governance which deals with the explanations of objectives, the ways to attain the objectives and examine the progress.

Corporate Governance

According to the definition of Organization for Economic Co-operation and Development. Corporate governance involves a set of relationships between a company's management, its board, its shareholders, and other stakeholders. It also provides the structure through which the objectives of the company are set, and the means of accomplishing those objectives and monitoring performance are determined" (OECD, 2004). Corporate governance also offers the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined (Johnston, 2004). Through corporate governance, the managers are held accountable to legitimate stakeholders through laws and practices (Jacoby, 2005). Corporate governance is a system where companies are strategically directed, managed, and controlled in an entrepreneurial and ethical way (Hilb, 2011). It is the process by which the companies defend the interest of the stakeholders, i.e., board members, business executives, employees, stakeholders, companies, customers, and the community that organization operates (Pemsel & Wiewiora, 2013). According to Bekker and Steyn (2007), corporate governance has failed to tackle the flaws encompassing the public accountability on projects because of its focus on shareholder protection, which implies that the corporate governance itself is not sufficient. Project governance is a subset of corporate governance, concentrating on the areas of corporate governance related to project activities (Weaver, 2007).

Project Governance

The project is defined as "a temporary endeavor undertaken to create a unique product or service" (PMI, 2017). Ali (2010) stated that having specific start and ending points, projects are distinctive in their output, temporary in nature and are carried out to organizational strategic objectives Projects do not operate in a closed system and exist within the organization, which

requires the data from the organization and outside, and deliver the competencies back to the organization (PMI, 2013). Hence, the projects are carried out at all the levels, by involving a single unit of an organization or across the organizational boundaries (Kerzner, 2013). The conventional approach to evaluating project management has assessed outcomes in terms of project scope, budget, and schedule (PMI, 2013). However, increasingly, evaluations are being expanded to include the concept of project governance. The term project governance has been used in the context of project management (Bekker & Steyn, 2007). In projects, governance takes place at groups of projects and at portfolios of projects, where the stress is on collective governance, which is viewed as governance of projects (R. Müller & Leconte, 2014). McGrath and Whitty (2015) have described project governance as "the system by which a project is governed, directed, and controlled. Project governance is involved in management and governance functions for individual projects and their deliverables (Too & Weaver, 2014). Bekker and Steyn (2007) identified that "Project governance is a set of management systems, rules, protocols, relationships and structures that provide the framework within which decisions are made for project development and implementation to achieve the intended business or strategic motivation." So, project governance can support a good operational environment and provide a guarantee for project success. In early stages, neither the plans nor the formal contracts to govern the actions and relationships of the parties are involved, but there is still a belief that some governing processes is at play (Hellström, Ruuska, Wikström, & Jäfs, 2013). Klakegg et al. (2008) have cited that project governance should flow from the higher management level to down at the project level. Hence, the project governance discusses the framework, functions, and processes which guides the project management activities to create a unique product, service or result to meet organizational, strategic, and operational goals (PML, 2017).

There are vast differences to understand and define project governance (Bekker & Steyn, 2009). Sometimes it depends on the author's field of research and technical background (Bekker, 2015). There is a lack of unanimity on a standardized definition of project governance. Project governance is defined as "the value system, roles and responsibilities, procedures, policies which support projects to accomplish organizational objectives and foster execution for the best interest of all stakeholders, internal and external, and the corporation itself (Muller, 2011). Garland (2009) has defined as "the framework within which project decisions are made." One of the essential functions of project governance has always been the strategic alignment of the objectives and its increasingly being specified more clearly (Samset & Volden, 2016). In Project Management Institute's (PMI) practice guide for the governance of portfolios, programs, and projects, the strategic alignment is also included in the definition of project governance: "the framework, functions, and processes that guide project management activities in order to create a unique product, service, or result to meet organizational strategic and operational goals (PML, 2016a) Project governance has been recognized and established to meet organizational strategic and operational goals, and also to provide guidance and overseeing the project management activities. It focuses on guidance, decision making, and improves opportunities for project success through a well-organized approach to project management (PMI, 2016a). The challenging objectives of the project triple constraints have made the implementation of projects very tough, and there is a need for project governance to guide and run the management of project execution and to make sure appropriate stakeholder engagement (PML, 2016a).

It is not possible to have one governance framework for all the projects because the projects have different levels of uncertainty, complexity, and risk but a general categorization by domains, functions, and processes of project governance can be tailored to any particular project (PMI, 2016a). The related functions and processes are grouped into the following four governance domains (PMI, 2016a); 1) Governance alignment; 2) Governance risk; 3) Governance performance; 4) Governance communications. Whereas, the governance supporting processes,

activities, and tasks are categorized into four functions, i.e. oversight, control, integration, decision making (PMI, 2016a). Likewise, the Association for Project Management (APM) also supports strategic alignment as an important standard of good governance (APM, 2012). The complications in project governance suggest that a single theoretical viewpoint is not sufficient to comprehend the fundamental mechanisms through which it improves project success. The structure of governance would ultimately depend on the work setting of the project and the kind of acts involved (Hoetker & Mellewigt, 2009, Zwikael & Smyrk, 2015). Understanding of project governance may exist in at the confluence of various theories and take into consideration the different project context (ul Musawir et al., 2017). It is a set of management systems, rules, protocols, relationships, and structures which provide the framework for decision making for project development and implementation to accomplish the envisioned business or strategic motivation (Bekker & Steyn, 2007). Project governance can support an excellent operational environment for the success of projects as it is considered as a critical success factor in project execution (Garland, 2009). It provides structure to implement projects and increase the probability of project success (Jeffrey K Pinto, 2014). There is a deficiency of theories related to project governance which discourses the complex link between the project and the organization and classifies the procedures through which project governance improves the project success (ul Musawir et al., 2017).

The primary aim of an effective project governance mechanism is to bring into line the project goals with the organization's strategy and objectives (Biesenthal & Wilden, 2014). The project governance ensures that the essential outputs and outcomes generated by the projects are leading towards the anticipated benefits identified in their individual case (Sankaran et al., 2008). Project governance is considered as a critical success factor in project execution (Garland, 2009). Later, this argument was also supported by (Jeffrey K Pinto, 2014), who stated that the governance of projects provides structure to execute the projects, thus increasing the probability of project success. Furthermore, Levitt, Hennisz, and Settel (2009) identified two different types of challenges in infrastructure project governance, which appears during the project initiation, implementation, and operational phases. The first is "opportunism in the presence of displaced agency - i.e., conflicts between the incentives of the parties leading the decision-making in each of the successive and interdependent phases of design, construction, and operations that lead to sub-optimal investment and may lead them to pursue their self-interest with guile. The second is political and regulatory risk-i.e., ex post political interventions in operational decisions". The Project Governance prerequisite is to explore how resources and risks are to be assigned among stakeholders to define the control measures for achieving targeted objectives, which are defined by legal and regulatory mechanisms to ensure better utilization of public funds (Klakegg, Williams, & Magnussen, 2007).

The conceptualization of project governance has been driven from a "project management" point of view and the majority of authors on project governance, who are from the project management background, are attempting to construct a project governance framework through a bottom-up approach (Bekker, 2015). Abednego and Ogunlana (2006) have advocated for the integration of concepts about good project governance and the project management approach. They further proposed the characteristics of good project governance, which are as follows:

- a) Active participation, which is the right decision at the right time;
- b) Contract fairness- meaning the rule of law to be enforced impartially
- c) Transparency, where information must be freely available and implementation of the decisions must be according to the rules and regulations;
- d) Responsive, decisions made must be implemented within a stipulated period;
- e) Project monitoring and control to achieve strategic goals to meet and exceed the satisfaction of all the stakeholders;

- f) Equality between all involved parties, where all parties have the same opportunities to improve and maintain their well-being.
- g) Effectiveness and efficiency through optimal utilization of resources and sustainable utilization of natural resources, and
- h) Accountability must be enforced through the rule of law and transparency and should be in the form of public participation and user's satisfaction

To ensure good governance and achieve these characteristics, four fundamental principles are identified (Garland, 2009). Those four key principles are, the identification of single-point accountability, explicitly, service delivery focus of project governance, and separation of project governance from organizational governance and the separation of stakeholder management from project decision-making. The identification of single point accountability safeguards the clarity and timeliness of the decision-making Service delivery focus and ownership regulate project ownership. Separating the stakeholder management from the decision-making activities will prevent ineffective decision making and possible chokehold between decision-making bodies and stakeholders. Separating the structure of project governance from organizational governance will decrease the number of project decision layers, as the project decision path will not be mingling with the organizational line of command Furthermore, the overall success of the project delivery can be achieved through the synchronization and control of the processes, engaging all the stakeholders and resolving their conflicts of interest, also by people in decision making from beginning to end. The model helps in identifying the accountable person by making the decision path clear. According to the model organizational decision making is not playing its part in project decision making, which needs to be addressed. By the augmented use of project governance from a strategic perspective, the efforts for aligning project outputs to a general strategy can be easily secured (Hjelmbrekke, Hjelmbrekke, et al., 2017).

According to Bekker (2014), there are three schools of thoughts on the project Governance, firstly the single-firm school which is involved with governance principles related to internal organizational project and practice these principles at a technical level, secondly the multi-firm school which addresses the governance principles related to two or more than two organizations participating on a contractual basis on the same project which focus their governance efforts at technical and strategic level, thirdly the large capital school considers projects as temporary organizations which create their own entity and establishes governance principles at an institutional level. Bekker (2014) also stated that the hierarchical positioning in the organization and the type of project determines the meaning of project governance. There are three major types of project governance based on stakeholder involvement in the literature (Ruuska, Ahola, Artto, Locatelli, & Mancini, 2011). The first type of project governance emphasizes on analysing a single firm's governance scheme with its multiple projects, which is the final decision-making body and has control over policies, processes and activities of projects, the second type ponder multi-firm projects where different organizations involved in contractual agreements where the involved firms have their vested interests in the project and the main stress is to safeguard the intellectual property, the third type deliberates the projects like hybrid or network structures which are involved in various interconnected actors depending on the existence of one topmost hierarchical authority, which is always the lead sponsor or underwriting firm (Ruuska et al., 2011).

Dimensions of Project Governance

Initially, project governance was divided into four dimensions (APM, 2004). These four dimensions are 1) Portfolio direction, 2) Project sponsorship, 3) Project management effectiveness and efficiency (renamed to project management capability in 2011 by APM), and 4) Disclosure and reporting. Short description of these dimensions are as follows:

Portfolio direction

Portfolio direction ensures that the identified projects are within one portfolio, and it has been evaluated and directed to align with the key business objectives and constraints of the organizations (APM, 2011). Numerous researchers have studied the importance of project portfolio management. Martinsuo and Lehtonen (2007) have studied the contribution of single project management on project portfolio management efficiency. Miguel (2008) has explored the relationship of new product development with portfolio management and found that portfolio management is of importance for the existence of the studied firm. The primary purpose of the project portfolio management is to maximize the financial value of the portfolio, to linking the portfolio to the firm's strategy, and to balance the projects within the portfolio by the firm's capacity (Meskendahl, 2010).

Project sponsorship

Project sponsorship has been discussed quite a lot times in project management standards documents such as in PMBOK Guide published by Project Management Institute (2013) and in Association for Project Management (APM), 2011. According to PMI (2017). "The project sponsor is generally accountable for the development and maintenance of the project business case document." APM (2011) has described project sponsorship as a vital link between the top-level management of the organization and the management of the project with decision making, directing, and representational accountabilities. In all kind of governance, top management and sponsors have played a significant role, and they have ensured the necessary support and the governance requirement for project governance (Crawford et al., 2008).

Project management effectiveness and efficiency

This dimension makes sure that the project teams have the capabilities to attain the project objectives and the capability is dependent on the factors such as skills, experience, available resources and the access to tools and process (APM, 2011). According to Hyväri (2006), the technical side of the project management tools and techniques have well developed and utilized, and he suggested to emphasize developing leadership skills. For the success of the project management, the human factor is equally important along with the effective resources and instruments (Curran, Niederganel, Picker, & Leker, 2009).

Disclosure and reporting

This dimension ensures reliable information, availability of reports in time for the decision-making process, and also the access of necessary project reports to legitimate project stakeholders (APM, 2011). Open culture and disclosure are the requirements for effective reporting (APM, 2011). Hesitance by the project team members in reporting the real status of the projects is also considered as an important factor in project failure (C Park, Im, & Keil, 2008). Time urgency and flaws in the responsibilities have a significant impact on the willingness of an individual to the disclosure of bad news (C. Park et al. 2008). Higher authorities must keep an eye on the favorable status report. There should include independent verification of the information for the accuracy of project reports (APM, 2011). Sirisomboonsuk et al. (2018) have pointed out different aspects overlapping in project sponsorship and project management effectiveness and efficiency dimensions. They have combined these two dimensions into one have measured the project governance in three main dimensions, ie., a) Portfolio direction (PD), b) Project sponsorship and project management effectiveness & efficiency (SEE), c) Disclosure & reporting (DR).

Effective Project Governance

Effective project governance is a process of selecting the right project concept making the right decisions, and meeting the expectations of the key stakeholders (Weaver, 2007) It includes activities like analyzing the trigger problem, evaluating the user's needs, assessing the possible impacts of different alternatives, examination the alignment of project objectives with governmental policies/ strategies and allowing the involvement of relevant stakeholders in the project preparation and decision-making processes Project failure can be eradicated by executing the projects right again and again is the primary focus of effective project governance (Weaver, 2007). According to Garland (2009), the degree to which a project governance framework could solve problems related to project failure is also one of the measures of the effectiveness of project governance Ineffective project governance, the project owner, and board play an important role in addressing various issues by providing the necessary resources and top management support (Paivarinta et al., 2007). Effective governance process ensures input from the essential stakeholders and "confers legitimacy upon project decisions and outcomes. Good governance has the aptness to navigate the projects through different uncertainties and unexpected events. Weaver (2007) has summarized the effectiveness of project governance as setting the "right objectives" then asking the "right questions" and making the "right decisions." In this regard, to improve the effectiveness of project governance, the following requirements are needed (Shiferaw, 2013)

- Specifications and distribution of rights and responsibilities amongst the diverse stakeholders
- Outlining the rules and procedures for decision making
- Describing the need for a strategic framework to select the "right" projects to carry out
- The right set of skill development
- Promoting the optimal use of resources
- Observing the performance
- Need for accountability across the board for the stewardship of resources.

Elements of the Project Governance Framework

The project governance framework is comprised of five elements: stage-gate approval process, stakeholder representation, formal roles and responsibilities, quality assurance, and contracts and sign-off (O'Leary, 2012) Narayanan and DeFillippi (2012) have also characterized and recommended those five elements to be included in developing a project governance framework, and have added two other elements, ie the degree of outsourcing and information technology as focal points of governance. Short description of the five elements are as follows

➤ *Stage-gate approval process:*

In this stage suitability of the project, the proposal is examined for the next stage of its development (Garland, 2009), Jonny Klakegg (2009) stated that the stage-gate approval process is a unique process where the projects are scrutinized based on predefined critical stages.

➤ *Involvement:*

In the decision-making process and project shaping, there must be a representation of key stakeholders. So, the process of a project governance structure needs to recognize the different parties and their perspectives about the project initiative (Miller & Lessard, 2008). Involving the stakeholders while decision making at the crucial predefined decision gates is vital for at least four reasons (Coenen, 2002: Innes & Booher, 2004), Le, they (i) protects legitimate actions, (ii) helps in decreasing the risk of conflict (1) helps in getting more knowledge and information from

different sources and generation of new ideas from the participants; (iv) learn about the environmental problem through the involvement of people and organizations.

➤ *Formal roles and responsibilities:*

It is pertinent to recognize and describe the duties and responsibilities of stakeholders who are engaged in the project conception and decision-making processes. Mostly, in public sector development projects, the stakeholders include the general public, government functionaries, authorities, project sponsors, environmental agencies, and different parties in the market. Hence, during the formation of the project governance framework, it is very imperative to describe the roles and responsibilities of stakeholders to lessen the confrontations and to resolve the conflicts (Miller & Lessard, 2008).

➤ *Quality assurance:*

This system makes sure the acceptable quality in compliance with agreed objectives, and also resolve the issues which may arise during the project development (Christensen, 2011) Similarly, it facilitates in collective decision making by fulfilling the agreements set in the initial plans by providing an independent view (O'Leary, 2012). Hence, it is essential to develop a quality assurance system in a project governance framework to scrutinize the projects at strategic decision points in their life cycle and also provide a guarantee for successful development in the next stage (Commerce, 2007).

➤ *Contracts sign-off:*

In this stage, official documents and agreements are used with agreed points of reference to resolve any issues or at the time of disagreement within the governance process (O'Leary, 2012). He further stated that the signed off deliverables and contracts are imperative to indicate the exit from one phase to the next phase. Each one of these elements can reveal disparities across organizations and among project classes within the same organization. Relationship-based governance typically focusses on non-hierarchical elements, such as leadership, motivation, incentives, resource allocation, alliances, stakeholder's management, informal relations, and communication.

➤ *Project Governance Framework*

The project governance framework is a set of decision-making processes and ensures creativity and discipline through collecting and analyzing the information (Miller & Lessard, 2008). Likewise, it is an organized structure which is established as an authority within the institution, having established rules and processes to ensure the accomplishment of projects goals (Klakegg et al., 2008). Therefore, governance framework is a structure for decision-making having predefined procedures, principles, and rules which are useful for selecting the appropriate project, undertaking its right direction, and accomplishing the project's objectives. The project governance framework makes it possible the scrutiny at the appropriate level and time to make sure the involvement of stakeholders interests from the start and also acknowledges the recommendations from independent sources for best practices, ie., legal, accounting, policy and financial issues (H. Treasury, 2007). This indicates that the framework for effective project governance is dependent on the governance structure, processes, systems support, and also in what way the main elements of project governance are structured in a framework to execute the appropriate project concept and to exercise the best possible decision (O'Leary, 2012). Garland (2009) has described the following criteria for effective project governance framework

- Well defined objectives
- Facilitate the decision-making process in the right direction
- Transparency in the accountability process and be accountable
- Differentiation between the governance structure and organizational structure
- Make it sure that the relevant stakeholders are part of the process

- Boosting the efficient and effective execution of the project

Janicke, Jörgens, Jörgensen, and Nordbeck (2001) have generalized the necessary changes in governance frameworks of the public investment projects into four main broader issues ie:

- a) The logical amalgamation of policies and strategies;
- b) The strategic task for a public organization, ie, Parliament,
- c) Extensive involvement of civil society in the process of planning and decision-making;
- d) The vision for problems and subsequent strategies.

As an operational approach, project governance framework is necessary for the implementation and resource allocation for the projects. Through better use of project governance in strategic perspective, the efforts for aligning project outputs to general strategy can be easily be achieved, and it is basically about leadership selection, incentives, control systems and monitoring (Hjelmbrekke, Hjelmbrekke, et al., 2017). Effective governance of the infrastructure development projects has become a need and significant challenge which defines the success of the projects. There are several cases where big infrastructure projects provide typical examples of cost overruns due to unique site conditions, delays and hidden costs (Sha, 2011) and conflicts among the groups (Ogunlana, 2010). There are two features of infrastructural development projects which have made them ideal for the understanding of socio-political governance. Firstly, the infrastructure projects are produced by multiple counterparties through a complicated series of interlinked transactions and secondly, the significance concerning catalytic functions in the development process, and nations security and comfort has made infrastructure development process politically salient (Levitt et al, 2009) Infrastructure projects are involved with projects related to transportation, access to water, and sanitation, which are directly related to the societal lives (Santosh Kumar Delhi, Mahalingam, & Palukuri, 2012).

A comparative analysis depicts that project governance offers a structured mechanism to detect and address the risks when they occur (Guo et al., 2014), Garland (2009) stated that project governance is a process for decision making and established framework, models, and structure for their enablement and considered as a critical success factor in project execution. Project governance should incorporate the project quality management system, project, and company strategy with regards to project selection (Burcar Dunović, 2010). According to L. Zhai et al. (2009), key features of mega infrastructure projects are; longer life cycle, uncertainty, complications, a large number of stakeholders as well as their effect on the economy, community, technological development, and the environment. Jonny Klakegg (2009) has argued that the presence of governmental stakeholder may create further political uncertainties for the project. Governance prerequisite is to explore how resources and risks are to be assigned among stakeholders to define control measures for achieving targeted objectives, which is defined by legal and regulatory mechanisms to ensure better utilization of public funds (Klakegg et al., 2007). Project governance provides a framework and structure to articulate and attain the objectives which are in the way of monitoring the performance of the projects (Turner, 2009). Patel (2007) noted that project governance classifies the space for daily project activities.

Validation of Instruments: Bottom 40 Next Generation Model for Sustainable Entrepreneurship

Wan Fariza Azima Che Azman¹
Raja Suzana Raja Kasim²

^{1,2}Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: e19e0069f@siswa.umk.edu.my

ABSTRACT

This paper seeks to examine the influence of entrepreneurship orientation, entrepreneurship intention, strategic competitiveness and technology adoption for sustainable entrepreneurship amid post COVID-19 crisis in Malaysia. Based on findings from previous studies on entrepreneurial orientation, entrepreneurial intention, strategic competitiveness and technology adoption, it was proposed that these are significant factors which require further examination on its influence factors on sustainable entrepreneurship. The focus of this study is to validate the research instruments that will be framed in the study. The basic theory of the model development uses the Resource Based Theory (RBT), Dynamic Capabilities Theory and the Technology Acceptance Model (TAM) developed by Davis. This is a quantitative research, and the analysis will confirm the instruments' degree of validity. This analysis's findings can be utilized to collect data from a survey in accordance with the research.

Keywords: Sustainable Entrepreneurship; Entrepreneurial Orientation; Entrepreneurial Intention; Strategic Competitiveness; Technology Adoption.

INTRODUCTION

The emerging and next generation technology appears to be critical and permeates every business in the world today. Technological evolution which provides innovative solutions for improvement of lives, transform industries and protect environment would offer convenience thus has a close relationship towards the implementation of sustainable entrepreneurship initiatives such as sustainable development goals agenda (SDGs). Not apart from the financial world, Financial Technology or in short is called as FinTech is a combination of information and financial technology. FinTech appears to have emerged in the financial industry. FinTech is a relatively new industry and disruptive industries entering financial filed, challenging established banking model but somehow does not necessarily mean putting banks out of business. In fact, FinTech mean cooperation or some form of cooptation between banks and startups (Gill, 2016).

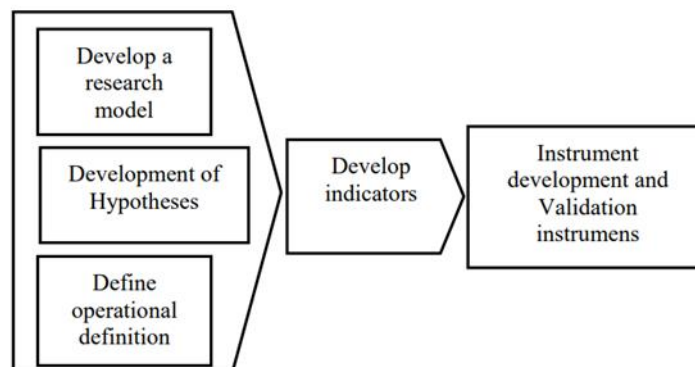
Financial technology innovation is bringing financial services to previously underserved groups and market segments, as well as transforming the way individuals engage with finance in the modern era (Gill, 2016) and provide enterprises with the ability to compete (Fernando & Touriano, 2018) especially the Bottom 40 enterprises. As demand on Shariah compliances and Islamic financial inclusion is increasing, the growth of Islamic FinTech in Malaysia has brought various parties to sustain their competitive advantage as well as achieve sustainable entrepreneurship. Nevertheless, there is lack of sustainable strategy among various Small and Medium Enterprises (SMEs) (Olorunshola, 2019; Tarnanidis, Papathanasiou & Subeniotis, 2016), Furthermore, there is limited research associating Shariah related business in

sustainability while only few Islamic FinTech in the world practicing sustainability (Salim, Abojeib, & Baharom, 2020).

Meanwhile, the exploration of low-income markets as part of the strategy helps SMEs to develop while facilitate programs that bridge the gap between entrepreneurs and established company (Pralhad & Hammond, 2002). According to prior research, there are certain highly essential factors that influence the companies to pursue sustainable entrepreneurship. Therefore, this paper seeks to examine the use of Islamic FinTech service from the sustainable entrepreneurship side of its providers, while exploring the relationship between entrepreneurial orientation, entrepreneurial intention, strategic competitiveness and technology adoption towards sustainable entrepreneurship by providing FinTech services on its attempt to develop the Bottom 40 next generation model.

RESEARCH METHOD

The validation of instruments was planned to be conducted accordingly and involved several stages. Firstly, the research model is being developed to define the relationship between variables through hypotheses development. Then, the operational of each variable in this paper is framed to develop research model. Furthermore, each dimensions are validated, each elements are measured by validating the instrument, and the item being constructed. An analysis of reliability of each of the items used in the model is then examined. Figure 1 depicts the stages.



(Source: Fernando & Touriano, 2018)

Figure 1: Research Method

RESULTS AND DISCUSSION

Research Model Development

This paper develops a model based on the Resource Based Theory (Penrose, 2009; Barney et al., 2011), dynamic capabilities theory (Teece, Peteraf & Leih, 2016) and Technology Acceptance Model (TAM) which developed by Davis et al. (1989). RBT is first developed by Barney is widely acknowledge and most prominent theories for describing, explaining, and predicting organizational relationship (Zimuto & Maritz, 2019). It was triggered by Penrose (2009) which explains how and why firm-based resources can exploit sustained competitive advantage by gaining higher competitiveness over time (Utami & Alamanos, 2022). Previous studies have mentioned that Entrepreneurship Orientation (EO) act as the driver of business

success, yet, sustainable. Dess et al. (1997) state that there is significant relationship between EO with firm resources and capabilities. According to Adam, Fuzi, Ramdan, Isa, Ismail, Hashim, Ong, & Ramlee (2022), EO act as a foundation plan to develop the competitive strategies in order to sustain. Barbosa (2016) also mention that EO (e.g; innovativeness, proactiveness and risk-taking) is the determinant of SMEs business survival, which result in the development of corporate resources and capabilities (Covin & Lumpkin, 2011; Covin & Miller, 2014).

RBT also addresses internal firm issues such as Entrepreneurial Intention (EI) (Henao-García, Arias-Pérez & Lozada-Barahona, 2020). Some studies make it clear that entrepreneurship is mainly intentional process (Urbano et al., 2013), which include attitudes, perceived behavioral control and subjective norms (Zampetakis et al., 2017) in the pursuit of sustainable entrepreneurship (Yasir, Mahmood, Mehmood, Babar, Irfan & Liren, 2022). Meanwhile, dynamic capability can impact MSMEs' valuable, rare, non-imitated, and non-substituted resources (VRIN) to gain a competitive edge in a rapidly changing business environment (Adeniran, 2012). It is an organization's ability to integrate, develop, and restructure internal and external competencies in order to quickly overcome environmental changes (Teece, Pisano & Shuen, 1997; Teece, 2016; Teece et al., 2016). This theory is utilised to focus management's attention on the efficient and effective deployment of internal resources as well as develop a competitive strategy on the external business environment (Dadzie et al., 2012; Hitt, Ireland & Hoskisson, 2015 in Alaba, Abomeh & Akpobome, 2021).

On the other hand, TAM was developed based on social psychology theories such as the "theory of reasonable action" (TRA) by Ajzen & Fishbein (1980) and the "planned theory of behavior" (Ajzen, 1985) to suggest a causal relationship of "beliefs-attitudes-behavior" to explain and predict the acceptance of technology among potential users as well as focus on how the technical specifications of virtual stores affect individual perception and, finally, the use of that technology (Chen et al., 2002). The TAM, being a well-established theoretical model, may help to explain and predict user behaviour in the context of next generation. The TAM was appropriate for examining the impact of numerous factors, such as culture, on the PU and PEOU of next generation, particularly among SME business owners in the financial services industry in Malaysia. The TAM was suitable for this study because business owners can use it to better understand consumers' online behaviour and improve their business strategies for marketing their products. TAM has been utilised successfully by many academics to learn why and how individuals opt to employ a given technology (Faqih, 2016; Peng et al., 2015; Rahman et al., 2016; Saprikis et al., 2018).

The Relationship between EO, EI, SC, TA and SE

Attempts on sustainable entrepreneurship, this paper involves Industry 4.0 which will need to understand the relationship between EO, EI, SC and technology adoption. Previous study are debating the relationship between them. Figure 2 depicts the direct relationship between the dimensions.

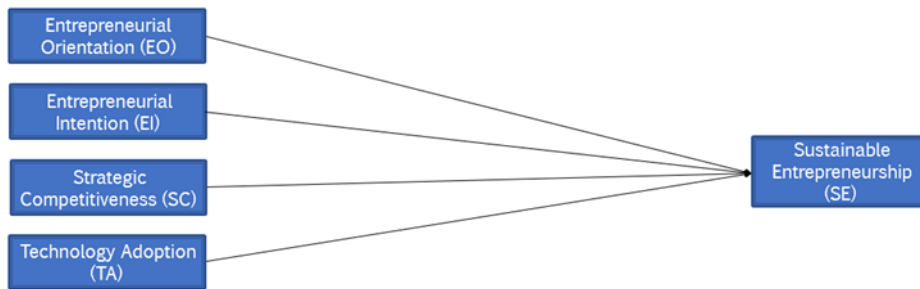


Figure 2: Relationship between EO, EI, SC, TA and SE (Direct Relationship)

This paper seeks to examine the influences of EO, EI, SC and TA on the sustainable entrepreneurship. This paper applies an independent relationship expressed by Covin & Slevin (1989), Azjen (1985), Porter (1980) and Davis et al. (1989). The research model can be seen in Figure 3.

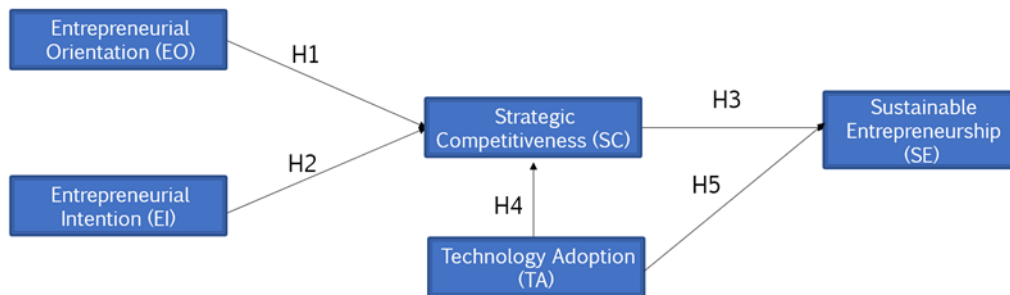


Figure 3: Research Model Developed

Development of Hypotheses

Development of hypotheses adapted to the development of research model. In this research model, the relationship between variables were describe by four (4) independent variables; EO, EI, SC, and TA, and one (1) dependent variable; sustainable entrepreneurship. Table 1 below define each of the dimensions in research model.

Table 1: Definition of Dimension in Research

Variable	Definition	Ref.
Entrepreneurship Orientation	An entrepreneurial process that involves innovativeness, proactiveness and risk-taking characterized by entrepreneurs or entrepreneurial firms to act entrepreneurially and is used in an effort to defeat their competitors.	Miller, 1983; Covin & Slevin, 1989; Lumpkin & Dess, 1996; Covin et al., 2011; Adam et al., 2022
Entrepreneurship Intention	Entrepreneurial Intention represents the attitude, perceived behavioral control and subjective norm which reflect the person to carry out an entrepreneurial behavior.	Azjen, 1991; Liñán & Chen, 2009; Yasir et al., 2021; Romero-

		Colmenares & Reyes-Rodríguez, 2022
Strategic Competitiveness	Strategic competitiveness is defined as how the company plans to use cost leadership, differentiation, and focus strategies to compete and maintain its competitive advantage in the business environment in which it operates.	Porter, 1980; Alaba et al., 2021
Technology Adoption	The acceptance, intention to use, integration, and attitude toward use of new technologies in society.	Davis, 1989; Chuang & Kao, 2016; Fernando & Touriano, 2018; Hansen et al., 2018
Sustainable Entrepreneurship	The process of recognizing, developing and exploiting entrepreneurial opportunities that create social, environment, economic value and bottom 40 value.	Hockerts & Wustenhagen, 2010; Pacheco et al., 2010; Shepherd & Patzelt, 2011; Prahalad & Hammond, 2002; Tarnanidis et al., 2016; Adomako et al., 2021

Sustainable entrepreneurship, which is a manifestation of firms' entrepreneurial orientation toward the three Ps (profit, people, and the planet), can exhibit entrepreneurial behaviour that ranges from more conservative to more entrepreneurial, depending on the dimensions of innovativeness, proactiveness, and risk-taking (Nicolopoulou, 2016). The balancing of sustainability and development is dependent on organisational and environmental contexts and must be addressed concurrently over time (Shepherd & Patzelt, 2011). Furthermore, a sustainable entrepreneurship posture consistent with EO must be maintained over time (Covin & Slevin, 1991), in the sense that firms must engage in entrepreneurial behaviours with some consistency over time (Covin & Lumpkin, 2011). Recently, there has been a growing alignment of the concept of sustainable entrepreneurship with the pursuit and exploitation of opportunities that address the triple bottom line; therefore, the concept of sustainable entrepreneurship cannot be discussed outside of the EO (Dean & McMullen, 2007; Shepherd & Patzelt, 2011; Pinkse & Groot, 2015).

According to Hesselbarth & Schaltegger (2014), sustainable entrepreneurs act as change agents by developing sustainability as a success factor in their working environment, integrating sustainability criteria into business processes, and transferring the vision of sustainable development to society. Nevertheless, becoming a successful sustainable entrepreneur does not happen immediately. Individuals who have the intention of becoming sustainable entrepreneurs are referred to as would-be (sustainable) entrepreneurs (Baron & Ensley, 2006; Dimov, 2007).

Based on Alejandro (2015), EO have a close related to competitiveness where it could create a unique, low prices, and opportunities that cannot be match by competitors to become successful. Sustainable competitive advantage is a major challenge for many companies, therefore, competitiveness strategy must be considered (Tambade et al., 2019). Hernández-Perlines et al. (2016) state that the international entrepreneurial orientation on the adoption of a competitive strategy as a mediating impact improves performance. Meanwhile, FinTech is regarded as the new technology adopted in order to support the on-going business as well as achieving sustainable entrepreneurship. Based on Jaziri & Miralam (2019), FinTech systems improves the performance quickly and could add value to the entrepreneurs. This achievement shows that

technology adoption may contribute to the sustainable entrepreneurship. Thus, this study build hypothesis as follows;

H1: Entrepreneurship Orientation has a positive impact on Sustainable Entrepreneurship.

H2: Entrepreneurial Intention has a positive impact on Sustainable Entrepreneurship.

H3: Strategic Competitiveness has a positive mediating impact on Sustainable Entrepreneurship.

H4: Technology Adoption has a positive impact on Strategic Competitiveness.

H5: Technology Adoption has a positive moderating impact on Sustainable Entrepreneurship.

Table 2: Expert Review Demographic

Designation	Qualification	Experience in Education/ Entrepreneurship	Area Of Expertise
Associate Professor	PhD (Technology Management)	16 years	Entrepreneurship and SMEs.
Deputy Head of Department	PhD	15 years	Entrepreneurial Development, industrial relation initiatives, social community research, and student entrepreneurship start-up with industrial players.
Deputy Dean	DBA	13 years	Management (organisational behaviour, entrepreneurship and Small Business and Management) and strategic innovation development of SMEs and micro industries.
Founder & Group CEO	Master of Science	8 years	DataTechnology, digital transformation, and AI-powered solutions
Strategic Officer	Master	3 years	Financial Technology

Table 2 above below shows demographic of expert review contributed to this paper. Expert review one, two and three are from academic background, while the rest are from industrial background. Expert reviewer was selected based on their experiences and expertise in their field of study and practical knowledge.

Table 3: Expert Review Analysis (N =5)

Construct	1	2	3	4	5	Percent Validity *4 & 5
EO (11 items)	2 (100%)	4 (100%)	3 (54.5%) 4 (9.1%) 5 (36.4%)	3 (9.1%) 4 (9.1%) 5(54.5%)	3 (63.6%) 4 (18.2%) 5 (18.2%)	80.0%
EI (15 items)	1 (100%)	3 (100%)	1 (13.3%) 3 (6.7%) 4 (6.7%) 5 (73.3%)	3 (13.3%) 4(26.7%) 5 (60.0%)	2 (6.7%) 3 (73.3%) 4 (13.3%) 5 (6.7%)	60.0%
SC (15 items)	3 (100%)	3 (100%)	3 (13.3%) 4 (13.3%)	3 (46.7%) 4 (13.3%)	3 (40.0%) 4 (60.0%)	60.0%

			5 (73.4%)	5 (40.0%)		
			1 (8.7%)			
TA (23 items)	2 (100%)	2 (100%)	2 (8.7%)	3 (8.7%)	3 (100%)	40.0%
			4 (43.5%)	4 (91.3%)		
			5 (39.1%)			
			2 (5.3%)			
SE (19 items)	2 (100%)	4 (100%)	3 (21.0%)	3 (5.2%)	4 (100%)	80.0%
			4 (21.0%)	4 (52.7%)		
			5 (52.7%)	5 (42.1%)		

Note: Only construct 4 (Relevant) and 5 (Very Relevant) are calculated.

Table above shows the expert review analysis from five (5) expert review. Based on the analysis, entrepreneurial orientation shows 80% of validity which exceed the criteria to be used in this research. Besides that, entrepreneurial intention shows 60% validity which meet the criteria to be used for real data collection. Meanwhile, strategic competitiveness is argued to be used as mediating variable in this study due to the fact that, strategy competitiveness is regarded as the external competencies to integrate, develop, and restructure to be able to quickly overcome environmental changes (Teece et al., 2016).

Technology adoption shows a low percentage validity with only 40%, which left argued to be tested as the moderated variable in the research as it could enhance the business strategies adopted by the firm. Last but not least, sustainable entrepreneurship instruments have exceeded the criteria to be used in this research. Overall, the instruments in this research may be used in this research with a minor modification.

CONCLUSIONS

This paper validates the instruments in developing Bottom 40 next generation model for sustainable entrepreneurship amid post COVID-19 in Malaysia. There has been validated by expert so that it can be used to see the value of the influences of the elements of entrepreneurship orientation, entrepreneurship intention and strategic competitiveness as well as technology adoption on sustainable entrepreneurship. The adopted and adapted instrument has been validated and will be reevaluated to meet the validated instrument's criteria. These instruments can be used in research data collection using real data and larger samples through online or face-to-face.

ACKNOWLEDGEMENTS

This research was supported by the Fundamental Research Grant Scheme from the Ministry of Higher Education Malaysia [Grant Code: R/FRGS/A01.00/00756A/004/2017/000429].

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PERANAN AGENSI DALAM PENGURUSAN RISIKO KOPERASI

Erdy Izwan Bin Asli¹
Noorul Azwin Binti Md Nasir²
Azira Hanani Binti Ab Rahman³

^{1,2,3}Fakulti Keusahawanan dan Perniagaan, Universiti Malaysia Kelantan
Corresponding emel: erdy.angkasa@gmail.com

ABSTRAK

Suruhanjaya Koperasi Malaysia (SKM), Institut Koperasi Malaysia (IKMa) dan Angkatan Koperasi Kebangsaan Malaysia (ANGKASA) adalah tiga agensi penting dalam gerakan koperasi Malaysia. Ketiga-tiga agensi ini mempunyai peranan dan tanggungjawab yang saling menyokong antara satu sama lain termasuk Pengurusan Risiko dalam pentadbiran koperasi. Artikel ini akan menerangkan Pengurusan Risiko sedia ada yang telah dibangunkan oleh tiga Agensi utama dalam gerakan koperasi iaitu SKM, IKMa dan ANGKASA.

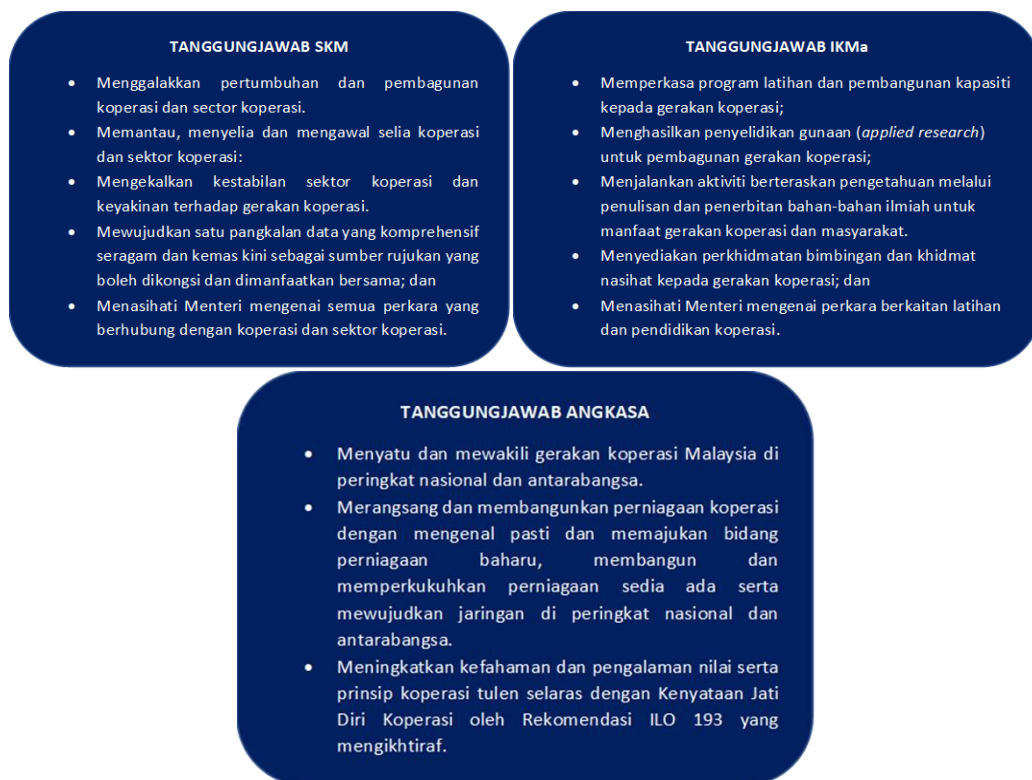
Kata Kunci: Suruhanjaya Koperasi Malaysia; Institut Koperasi Malaysia; Angkatan Koperasi Kebangsaan Malaysia; Pengurusan Risiko

PENGENALAN

Berdasarkan International Cooperative Alliance (ICA) koperasi ditakrifkan sebagai kumpulan individu secara sukarela berkumpul untuk memenuhi kepentingan bersama dalam keperluan kewangan, kemasyarakatan dan kesenian. Di Malaysia pula Koperasi ditakrifkan sebagai suatu pertubuhan orang berautonomi yang bersatu secara sukarela untuk memenuhi keperluan dan aspirasi ekonomi, sosial dan budaya mereka yang sama melalui suatu perusahaan milik bersama dan dikawal secara demokrasi yang berdaftar di Akta ini (Akta Koperasi 1993, 2021). Koperasi telah diperkenalkan pada tahun 1922 dan bermula sebagai Sharikat Bekerja Bersama-sama Jimat Cermat Dan Pinjam-Meminjam. Bilangan koperasi telah meningkat kepada 14,657 buah sehingga tahun 2021 dan menjana perolehan melebihi RM18 bilion (SKM, 2022). Ini berdasarkan statistik yang dikeluarkan oleh Suruhanjaya Koperasi Malaysia melalui Laman Web mereka. Gerakan koperasi terus berkembang dengan baik dengan menjalankan pelbagai kegiatan seperti pertanian, perladangan, perkhidmatan kredit, pengangkutan dan perumahan. Kebanyakan koperasi tidak hanya menumpukan hanya kepada satu kegiatan sahaja, malahan mereka boleh mempelbagaikan kegiatan bagi membolehkan koperasi mencari pendapatan dan juga memberi perkhidmatan kepada anggota. Individu yang membentuk koperasi adalah terdiri daripada kakitangan kerajaan, badan berkanun, kakitangan swasta, pesara, siswazah, pelajar sekolah penduduk taman perumahan, peniaga kecil, nelayan, petani, pekerja ladang, kumpulan professional dan sebagainya.

Dalam gerakan koperasi terdapat tiga agensi utama yang memainkan peranan masing-masing iaitu Suruhanjaya Koperasi Malaysia (SKM), Institut Koperasi Malaysia (IKMa) dan ANGKASA. Bagi memastikan peranan dan tanggungjawab bagi ketiga-tiga agensi tidak bertindih, satu Memorandum Aspirasi Koperasi Malaysia telah ditandatangani pada 12 Februari 2022. Memorandum Aspirasi Koperasi Malaysia ditandatangani adalah untuk menunjukkan komitmen ketiga-tiga agensi dalam menjadikan gerakan koperasi sebagai penyumbang berkesan kepada

pembangunan sosial ekonomi negara yang makmur, inklusif dan mampan. Aspirasi Koperasi Malaysia ini juga adalah mengiktiraf SKM sebagai penggalak pembangunan dan badan kawal selia, IKMa sebagai institusi Pendidikan dan latihan koperasi dan ANGKASA sebagai badan puncak yang memelihara kepentingan gerakan koperasi di Malaysia. Selain itu Aspirasi Koperasi Malaysia ini menunjukkan tekad ketiga-tiga agensi melaksanakan fungsi dan peranan secara holistik dalam mentransformasikan gerakan koperasi menjadi sektor yang berdikari, berdaya saing, relevan dan menyumbang secara signifikan kepada ekonomi negara dengan fokus kepada pembangunan ekonomi, pendidikan, kebajikan anggota dan komuniti serta prihatin kepada persekitaran. Dalam Aspirasi ini juga telah menentukan tanggungjawab ketiga-tiga agensi seperti berikut:



Rajah 1: Tanggungjawab Agensi-agensi Koperasi

PENGURUSAN RISIKO

Risiko merupakan suatu kejadian atau peristiwa yang memberi impak kepada pencapaian atau objektif sesebuah organisasi. Risiko juga adalah kombinasi dari kebarangkalian berlakunya kerosakan, kecederaan, kerugian atau kejadian negatif lain akibat kelemahan dalaman atau luaran yang boleh ditangani melalui perancangan awal. Pengurusan risiko pula didefinisikan sebagai penyelarasan aktiviti organisasi secara bersepadu melalui penetapan hala tuju dan kawalan dalam menghadapi risiko. Secara umumnya objektif pengurusan risiko dalam suatu organisasi adalah melindungi aset dan sumber-sumber berharga organisasi dan ia juga boleh meningkatkan reputasi atau imej sesebuah organisasi. Selain itu pengurusan risiko ini boleh mewujudkan proses bagi mengenalpasti, menilai, mengukur, memantau, mengawal dan menangani risiko bagi suatu aktiviti atau projek yang diceburi oleh suatu organisasi serta menyediakan satu rangka kerja pemulihan perkhidmatan yang komprehensif yang dapat digunakan ketika berlakunya insiden atau krisis. Dalam menguruskan risiko secara sistematik

lima Prinsip mesti dilalui bagi melengkapkan suatu kitaran lengkap proses risiko (Standards Malaysia, 2011). Lima Prinsip tersebut adalah

Jadual 1: Prinsip-prinsip Risiko

Prinsip Pertama	Mengenalpasti risiko
Prinsip Kedua	Menganalisis risiko
Prinsip Ketiga	Menilai risiko
Prinsip Keempat	Rawatan Risiko / Pelan Mitigasi / Pelan Kawalan
Prinsip Kelima	Pemantauan Pelan Rawatan

Merujuk kepada Malaysian Standard MS IEC/ISO 31010:2010 terdapat 31 kaedah bagi menganalisa risiko iaitu proses dalam prinsip kedua:

KAEDAH MENGANALISA RISIKO			
Brainstorming	Structure << What if? >> (SWIFT)	Cause-and-effect analysis	Monte Carlo simulation
Structured or semi-structured	Scenario Analysis	Layer protection analysis (LOPA)	Bayesian statistics and Bayes Nets
Delphi	Business impact analysis	Decision tree	FN curves
Check-lists	Root cause analysis	Human reliability analysis	Risk indices
Primary hazard analysis	Failure mode effect analysis	Bow tie analysis	Consequence / probability matrix
Hazard and Operability studies (HAZOP)	Fault tree analysis	Reliability centred maintenance	Cost / benefit analysis
Hazard Analysis and Critical Control Points (HACCP)	Event tree analysis	Sneak circuit analysis	Multi- criteria decision analysis (MCDA)
Environmental risk assessment	Cause and consequence analysis	Markov analysis	

Rajah 2: Kaedah Menganalisa Risiko

PENGURUSAN RISIKO DALAM KOPERASI OLEH AGENSI

Dalam gerakan koperasi masa kini pengurusan risiko boleh dibahagikan kepada beberapa peringkat iaitu peringkat tadbir urus koperasi oleh SKM, peringkat pengurusan dalaman agensi dan juga peringkat pentadbiran koperasi. Di peringkat tadbir urus koperasi, SKM mempunyai kuasa di bawah Seksyen 86B Akta Koperasi 1993 untuk mengeluarkan arahan, garis panduan,

surat pekeliling, atau notis berkenaan dengan mana-mana peruntukan Akta koperasi 1993. Oleh itu SKM telah mengeluarkan 29 Garis Panduan (GP) bagi menjelaskan secara terperinci peruntukan Akta. Daripada 29 GP ini terdapat 11 GP yang secara terus menerangkan berkenaan pengurusan risiko yang perlu dilaksanakan oleh koperasi.

Jadual 2: Garis Panduan Pengurusan Risiko

Bil	Garis Panduan (GP)
1	GP 6 : GARIS PANDUAN MENGENAI KEMUDAHAN KREDIT OLEH KOPERASI
2	GP 7 :GARIS PANDUAN MENGENAI PEMBIAYAAN ISLAM OLEH KOPERASI
3	GP 9 : GARIS PANDUAN MENGENAI PENGAMBILAN SIMPANAN KHAS DAN DEPOSIT ATAU PENERIMAAN PINJAMAN
4	GP 10 :GARIS PANDUAN MENGENAI SKIM PELABURAN KHAS
5	GP 15 : : GARIS PANDUAN MENGENAI SKIM PEMBIAYAAN MIKRO OLEH KOPERASI
6	GP 16 : GARIS PANDUAN PELABURAN WANG KOPERASI DI BAWAH SEKSYEN 54 AKTA KOPERASI 1993
7	GP 17 : GARIS PANDUAN MEMBENTUK, MEMPUNYAI, MEMPEROLEH ATAU MENUBUHKAN SUBSIDIARI
8	GP 20 : GARIS PANDUAN MENGENAI FEDERASI KOPERASI KREDIT
9	GP 24 :GARIS PANDUAN PELABURAN HARTA TAK ALIH
10	GP 25 : GARIS PANDUAN AKTIVITI PAJAK GADAI ISLAM (AR-RAHNU)
11	GP 27 : GARIS PANDUAN TADBIR URUS KOPERASI

Jadual 2 menunjukkan kesemua GP yang berteraskan kepada aktiviti telah pun mempunyai maklumat berkaitan dengan pengurusan risiko yang boleh dirujuk oleh koperasi bagi menjalankan aktiviti yang ada mereka. Aktiviti koperasi yang telah dibangunkan Pengurusan Risiko adalah berkaitan dengan kemudahan pembiayaan, pelaburan, pelaburan dalam harta tak alih, Ar-Rahnu, penubuhan federasi dan penubuhan subsidiari. Aktiviti-aktiviti ini adalah aktiviti yang memberi kesan yang besar kepada perubahan hala tuju koperasi yang juga melibatkan pengaliran dana yang besar. Namun begitu panduan risiko yang terdapat dalam GP yang dinyatakan di atas sebahagian besar adalah memberi fokus kepada bagaimana melaksanakan pelan kawalan sepertimana dalam Prinsip keempat. Sebagai contoh dalam GP 6, 7, 9, 10,16,17,24 dan 24 menekankan pewujudan tiga perkara iaitu:

- Rangka kerja dan tatacara yang mencukupi bagi mengenal pasti, memantau dan mengawal risiko;
- Prosedur operasi pembiayaan yang mencukupi dan berkesan; dan
- Proses kawalan dalaman untuk menilai, mengukur, mengawal, memantau dan melaporkan segala jenis risiko.

Dalam GP 27-pula iaitu Garis Panduan Tadbir Urus Koperasi menerangkan tentang strategi dan dasar pengurusan risiko. Selain itu terdapat juga kaedah bagi mengenalpasti risiko mengikut kategori sepertimana yang terdapat dalam Prinsip Pertama Pengurusan Risiko. GP 27 ini juga menekankan supaya koperasi mewujudkan Jawatankuasa Pengurusan Risiko yang akan mengawasi aktiviti pihak pengurusan kanan dalam pengurusan kredit, pelaburan, pasaran, likuiditi, operasi, perundangan dan risiko lain serta memastikan proses pengurusan risiko diwujudkan dan berfungsi. Selain daripada itu terdapat juga GP yang menggariskan perkara-perkara yang boleh dijadikan sebagai kawalan untuk menangani risiko yang timbul dalam pentadbiran termasuk aktiviti perniagaan koperasi. GP berikut dengan jelas menetapkan had bagi suatu perkara untuk memastikan koperasi tidak terdedah kepada risiko kerugian, kecairan tunai dan integriti. Antaranya adalah seperti berikut:

- GP2 menetapkan dividen hendaklah tidak melebihi 10% setahun daripada syer atau yuran kecuali dengan kelulusan bertulis terlebih dahulu daripada SKM (GP2, 2012).
- GP6 menetapkan kelayakan maksimum peminjam tertakluk kepada amaun ansuran bulanan tidak melebihi enam puluh peratus (60%) daripada gaji hakiki bulanan peminjam (GP6, 2009).
- GP16 menetapkan bagi koperasi bukan kredit yang aktiviti utamanya dalam undang-undang kecilnya ialah selain pelaburan, had pelaburannya hendaklah tidak melebihi 20% daripada jumlah kumpulan wang anggota (GP16, 2011).
- GP17 menetapkan Lembaga Pengarah subsidiari hendaklah tidak lebih daripada satu pertiga jumlah anggota Lembaga koperasi (GP17, 2011).
- GP25 menetapkan jumlah pemberian pembiayaan Ar-Rahnu oleh koperasi kepada setiap penggadai hendaklah tidak melebihi RM50,000.00 atau tidak melebihi 70% daripada nilai marhun, mengikut mana yang rendah (GP25, 2013).

Selain daripada ketetapan di atas SKM juga mengawal risiko dengan mewajibkan perkara-perkara berikut mendapatkan kelulusan SKM sebelum pelaksanaan dibuat. Perkara tersebut termasuklah:

- GP16 menetapkan pelaburan dalam bon atau debentur mana-mana koperasi lain, mana-mana sekuriti lain atau subsidiari perlu kelulusan (GP16, 2011).
- GP17 menetapkan koperasi perlu mendapat kelulusan SKM bagi membentuk, mempunyai, memperolehi dan menubuhkan sesuatu subsidiari (GP17, 2011).

Dalam pentadbiran, SKM telah memperkenalkan PRISKOP atau Penyelia Risiko Koperasi pada tahun 2012. PRISKOP adalah bertujuan menerangkan Rangka Kerja Penyeliaan Koperasi yang berkonsepkan pemeriksaan PRISKOP kepada anggota Lembaga, Jawatankuasa Audit Dalaman, pegawai, pihak pengurusan koperasi dan pihak-pihak yang berkepentingan (Penyeliaan Risiko Koperasi PRISKOP, 2012). Selain itu penggunaan ZScore juga diperkenalkan bagi menilai tahap kekuatan sesebuah koperasi. Selain dari SKM, IKMa juga memainkan peranan dalam Pengurusan Risiko dalam gerakan koperasi. IKMa satu badan yang dipertanggungjawabkan untuk memperkasakan program latihan dan pembangunan kepada gerakan koperasi telah membangunkan satu modul pengurusan risiko untuk warga koperasi dalam Kursus Wajib. Kursus Wajib merupakan kursus yang diwajibkan kepada semua anggota Lembaga Koperasi (ALK) dan Jawatankuasa Audit Dalaman (JAD) (GP5 SKM).

Seterusnya ANGKASA sebagai badan puncak gerakan koperasi di Malaysia telah memperkenalkan Pengurusan Risiko Rasuah kepada gerakan koperasi. Pengurusan Risiko Rasuah ini adalah bertujuan untuk menangani isu-isu tidak berintegriti dalam gerakan koperasi. Mengikut data yang dikeluarkan oleh Suruhanjaya Pencegahan Rasuah Malaysia (SPRM) terdapat peningkatan tangkapan oleh SPRM terhadap Lembaga Koperasi. Pada tahun 2020

terdapat empat tangkapan yang dibuat dan meningkat kepada tujuh pada tahun 2021 (SPRM, 2022). ANGKASA bertindak menyediakan program taklimat dan konsultasi kepada koperasi yang ingin membangunkan Pelan Pengurusan Risiko Rasuah. Untuk itu juga ANGKASA telah menandatangani perjanjian persefahaman (MOU) dengan SPRM pada tahun 2017 bagi menjalankan pelbagai aktiviti berkaitan integriti kepada koperasi termasuk Pengurusan Risiko Rasuah.

Dalam aktiviti perniagaan ANGKASA memperkenalkan program inkubasi iaitu satu program di bawah peranan ANGKASA iaitu merangsang dan membangunkan perniagaan koperasi. Program ini adalah satu pelan kawalan bagi mengurangkan risiko kerugian kepada koperasi dalam suatu aktiviti perniagaan. Program inkubasi ini adalah program di mana ANGKASA sendiri perlu menceburi suatu bidang perniagaan terlebih dahulu sebelum bidang perniagaan tersebut dipromosikan kepada koperasi. Ia bertujuan untuk ANGKASA mengetahui dan membangunkan modul termasuk Pelan Pengurusan Risiko bagi aktiviti perniagaan tersebut dan ia akan menjadi rujukan kepada koperasi apabila mereka melaksanakan aktiviti tersebut nanti.

RUMUSAN

Secara amnya gerakan koperasi di Malaysia telahpun diperkenalkan dengan Pengurusan Risiko oleh tiga Agensi iaitu SKM, IKMa dan ANGKASA. Ia adalah untuk membantu koperasi menangani risiko yang integriti dari sudut perniagaan, pentadbiran dan juga integriti. Ketiga-tiga agensi ini menggunakan medium pengedaran GP, membangunkan modul kursus dan mengadakan taklimat serta konsultasi. Namun beberapa perkara boleh ditambahbaik bagi memastikan pelaksanaan Pengurusan Risiko ini lebih holistik dan efisien. Bagi memastikan pengurusan risiko dijalankan dalam tadbir urus koperasi, penambahbaikan boleh dibuat dengan menjadikan laporan Pengurusan Risiko dibentangkan dalam Mesyuarat Agung Koperasi bagi setiap tahun. Perkara ini boleh mengikut contoh yang dikuatkuasakan oleh Suruhanjaya Syarikat Malaysia (SSM) yang mewajibkan syarikat membentangkan perihal risiko dan ketidakpastian yang dihadapi syarikat sepermana yang dinyatakan dalam Seksyen 252, Akta Syarikat 2016. Selain itu pihak Agensi juga perlu menyediakan satu format untuk digunakan oleh koperasi terutama koperasi sederhana dan kecil. Ia perlu bagi membolehkan pengurusan koperasi boleh menguruskan risiko mengikut lima Prinsip Pengurusan Risiko yang telah ditetapkan oleh Standard.

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A Review of Data Envelopment Analysis (DEA) Approach in Nonprofit Organizations

Nuzul Akhtar Baharudin¹
Hazriah Hasan²
Mohd Zulkifli Muhammad³

^{1,2,3}Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: akhtar.a18e021p@siswa.umk.edu.my

ABSTRACT

The primary objective of this article is to review DEA models on the effectiveness of nonprofit organizations. This paper reviewed and summarized the application of DEA that measures the efficiency of nonprofit organizations. Thus, to achieve a review of DEA application in nonprofit organizations, 10 scholarly papers published between 2010 and 2021 have been analyzed. Therefore, the selected papers have been categorized according to the author(s), publication year, the study scope, time duration, application area, study purpose, results, and outcomes. The results of this review paper showed that DEA has the potential to be a useful evaluative tool for future analysis of efficiency issues in nonprofit organizations.

Keywords: Data envelopment analysis (DEA); Efficiency; Nonprofit organizations (NPO).

INTRODUCTION

The definition of DEA is a mathematical programming model applied to observational data and a new method for deriving empirical estimations of relationships such as production functions and/or productive production potential surfaces. Farrell (1957) established a mathematical model employing a single input-output technique for the measuring of technical efficiency. It is an empirical analytical method and is widely useful as a tool for performance evaluation. Charnes, Cooper, & Rhodes (1978) then established data envelopment analysis (DEA) in extending Farrell's work on measuring efficiency. This method was developed as a management tool to provide benchmark for evaluating the performance of decision-making units (DMUs), and its primary motivation is to improve the efficiency of DMUs. As according to Lee & Kim (2012), Charnes, Cooper, and Rhodes introduced DEA as a tool for measuring the efficiency of diverse units undertaking multiple input and output transformations. Vakkuri (2003) also confirmed that it is the most advanced and sophisticated method and data-driven technique for measuring and assessing the performance of DMUs. In addition, the number of studies on the theory and applications of DEA has increased rapidly in recent years. This fact justifies the wide applications of DEA as a nonparametric performance evaluation with a broad range of implementation areas across various disciplines and a widely utilized tool for benchmarking a set of entities (Akay, Ertek, & Büyüközkan, 2012).

According to Banker & Maindiratta (1986) and Bauer (1990) in Vakkuri (2003), there were two problems raised in measuring the efficiency of NPOs. First, the concept of organizational performance in economics is built on the concept of standards, which raises a dilemma. Second, in organizational contexts with multiple objectives, inputs, and outputs, it is difficult to measure performance with sufficient clarity. This problem is particularly vital in NPO because outputs can

only rarely be evaluated in terms of their market value. Therefore, DEA analysis provides unique solutions to the two problems described above. This method focuses on differences in company performance, allowing it to overcome the first problem with the evaluation standard. As a non-parametric approach to performance evaluation, the DEA does not make assumptions on functional forms. The DEA uses the efficient frontier as the standard against which organizations' relative performance is evaluated. Due to its ability to accommodate multiple inputs and outputs, DEA can solve the second problem. It is also useful since it takes returns to scale into account when evaluating efficiency, allowing for the concept of increased or decreased efficiency based on output levels and size.

The fundamental purpose of a nonprofit organization (NPO) is not profit maximization. In the book *Managing a Nonprofit Organization* (Wolf, 2012), the term nonprofit organization (NPO) refers with those legally constituted, non-governmental entities incorporated under state law as charitable or not-for-profit corporations established to serve some public purpose and are tax-exempted by the Internal Revenue Service (IRS). Religious institutions, universities, museums, homeless shelters, civil rights groups, labor unions, political parties, and environmental organizations, healthcare organizations, charitable organizations, voluntary agencies, aid agencies, foundations, trade unions, cooperatives, social enterprises, humanitarian disaster relief agencies and organizations of the third sector are examples of vast diversity of NPOs (Moxham, 2009);(Boris & Eugene Steuerle, 2006). As we know, the funding source for NPOs is public donations. They aggressively seek cash to meet administrative expenses, and the activities of NPOs.

Efficiency is related with achieving an economic goal in the sense of obtaining the optimal cost-benefit ratio (Ruhli & Sauter-Sachs, 1993). Ku-Mahamud, Ghani, Kasim, & Abdullah, (2010), stated that efficiency measurement is concerned with determining how well an organization effectively employs its resources to generate output. According to Ecer, Magro, & Sarpça (2017), efficiency is the achievement of a goal at the lowest possible cost. Ultimately, efficiency theory is concerned with the link between resources employed and results achieved. Therefore, it is an ideal that guides how an organization decides to use its funds and resources to maximize its value. Numerous studies have been carried out to measure the efficiency and performance of non-profit organizations (NPO) using a multiple of inputs and outputs, and a large portion of the existing research specifically highlights the usefulness of DEA. Therefore, the goal of this study is to analyze previous research on measure the efficiency of NPOs using the DEA approach. The review of the literature that has been published on this subject was conducted systematically. The remainder of this writing is structured as follows: a description of the methodology, analysis of the DEA used to evaluate NPO effectiveness, and recommendations for further research.

RESEARCH METHOD

This paper conducted a review of the literature by searching for, collecting, and analyzing pertinent published articles on the application of the DEA approach in NPO. The author began the review by discussing the three-step search strategy: identification, screening (inclusion and exclusion criteria), and eligibility. The beginning stage is identification. Identification entails looking for synonyms, similar terms, and variants of the study's key terms, which are: data envelopment analysis, efficiency, and nonprofit organizations. At this stage, the major objective is to expand the search functions of the database to locate additional relevant articles for the review. Firstly, identify the keywords used in the search. Finally, the author enhanced existing keywords and built a comprehensive search string by employing phrase searching, wildcards,

truncation, Boolean operators, and field code functions. Scopus and Web of Science were the two major databases used for this study. See (Table 1).

The author selected these two databases because Scopus is one of the largest abstract and citation databases of peer-reviewed journals in high-level subject areas such as life sciences, social sciences, physical sciences, and health sciences. Furthermore, it is user-friendly. Similarly, Web of Science is a subscription-based website that provides access to multiple databases containing extensive citation data for a variety of academic fields, such as science, social science, the arts, and the humanities. Therefore, existing papers on NPO efficiency which applied DEA approach were reviewed to provide an outlook towards the next generation of NPO efficiency. In this study, the author reviewed in published papers between 2010 and 2021 which used DEA models in measuring the efficiency of NPO. Following a search of these two databases, Scopus, and Web of Science, eleven scholarly publications were chosen for this review.

Table 1: The Search String

Databases	Keywords used
Scopus	TITLE-ABS-KEY(("data envelopment analysis" OR "dea" OR "DEA") AND ("nonprofit organi?tion*" OR "non-profit organi?ation*" OR "NPO*"))
Web of Science (WoS)	TS=("data envelopment analysis" OR "DEA" OR "dea") AND ("nonprofit organi*ation*" OR "non-profit organi*ation*" OR "NPO*"))

This study screened all 41 relevant articles using automated criteria selection based on the database's sorting function. To ensure the review's quality, the author included only journal articles containing empirical data. Additionally, the review contains only English-language articles to avoid reader misunderstanding (Table 2). This procedure excluded 21 articles because they did not meet the inclusion. Consequently, the remaining articles were utilized for the third procedure, which was determining eligibility.

Table 2: The Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Document type	Article journal (empirical data)	Article review, chapters in the book, book series, book, conference proceeding
Language	English	Non-English
Timeline	2010 - 2021	< 2010

Eligibility refers to the author's manual review of the retrieved articles to ensure that all articles that passed the screening procedure meet the eligibility requirements. This was performed by reading the titles, abstracts, and conclusions/discussions of the articles. This procedure

excluded eleven articles due of its emphasis on DEA-based measurements of NPOs. Thus, a total of ten articles were selected.

RESULT

Ten articles were acquired by the review. The remainder of this paper focuses on DEA-based efficiency measurements of NPOs. In line of this, the author of this study has identified seven different application areas, including educational efficiency, managerial efficiency, efficiency and quality performance, operating efficiency, relative efficiency, instrument efficiency, and program and fundraising efficiency (Table 3).

Table 3: Distribution papers based on application areas.

Application fields	Number of papers	Percentage (%)
Educational efficiency	1	10
Managerial efficiency	1	10
Efficiency and quality performance	1	10
Operating efficiency	1	10
Relative efficiency	2	20
Instrument efficiency	1	10
Program efficiency and fundraising efficiency	3	30
Total	10	100

Educational efficiency

Educational efficiency refers to the accomplishment of stated education objectives at the lowest possible cost. Esmaeili (2018) was the author of a previous published paper selected for this review that measured the efficiency using the DEA approach. The scope of the study was the educational groups of the Farhangian University, Guilan Province. There were seven educational groups or department involved in the study, which were math, physics, counseling, developmental sciences, Arabic literature, Persian literature, and social studies. Timeframe of the study was between 2013 and 2014, and the purpose of this study was to evaluate the performance of educational groups focused on output centered DEA. The variables used included the professor's teaching experience documentation, their educational compilations, and students' grade point average. The result was that the physics educational group had the highest priority in performance and efficiency, which means the department is more educationally efficient than other departments.

Managerial efficiency

The objective of managerial efficiency is to maximize the ratio of outputs to inputs. Coupet (2018), chose managerial efficiency in his study because it most directly depicts the type of efficiency that resource dependence suggests could be hindered by federal funding. 799 public and private nonprofit teaching-focused colleges in the United States were chosen for this study, and data were collected over a 5-year period from 2009 to 2013. This empirical study examines the effect of increased government financing on the efficiency of nonprofit organizations. Thus, this study emphasized hypothesis testing by first measuring the managerial efficiency of the nonprofits calculated with DEA and then measuring the impact of increases in government funding on efficiency, which was tested econometrically (dynamic panel model). The findings reveal that neither state nor federal funding increases affect the efficiency of nonprofit

universities on average. Increasing state funding had a negative effect on the managerial efficiency of public colleges.

Efficiency and quality performance

Ho, Huang, & Wu (2013) investigated the influence of management control systems (MCS) on the efficiency and quality of performance in correctional institutions. In their study, 57 Taiwanese correctional institutions, comprised of 20 prisons, 18 detention houses, 3 juvenile reformatory schools, and 16 juvenile detention and classification houses from 1998 to 2000, were selected as a sample. This study also developed hypotheses to predict a positive correlation between the tightness of MCS and its efficiency and quality performance. Each institution's efficiency score was determined using two widely known efficiency analyses: DEA and Stochastic Frontier Analysis (SFA). Results indicate that correctional institutions with tight MCS have both efficient and high-quality performance, showing that correctional institutions with tight MCS perform more efficiently than those with loose MCS.

Operating efficiency

One article was found in measuring the operating efficiency. It was written by Kalogeropoulou & Ioannidis (2012) where they examined the 26 public hospitals of the Greek National Health System (ESY) on how they manage their resources, purposely in the year 2009. This investigation of hospital operating efficiency applied DEA to measure technical efficiency. Two input and three output variables were chosen. The variables selected for the investigation are number of beds, staff, number of patient admissions, number of patient days, and number of outpatient visits. From the test of the 26 hospitals, only nine hospitals, or 35% of the total were determined to be efficient in managing their resources, while 16 hospitals, or 65%, were deemed to be inefficient.

Relative efficiency

Relative efficiency represents the comparative performance level of a decision-making unit (DMU) based on its inputs and outputs in comparison to those of other units in the collection. The author selected three published articles on this area. Firstly, the author reviewed the research conducted by Roh, Moon, & Jung (2018), whose study focused on 114 community hospitals in Tennessee from the 2002 - 2006 and applied DEA to measure relative technical efficiency. This study employed five output variables, including procedures, outpatient, inpatient, charity care, and profit, whereas the input variables were current assets, number of beds, and full time equivalent (FTE). The study discovered that medium-sized hospitals (126–250 beds) are more efficient than small (1–125 beds) and large hospitals (251 beds or more). Public hospitals in Tennessee are much more efficient than private and nonprofit hospitals, while rural hospitals are more efficient than urban hospitals.

Another study that focused on this area are conducted by Shao, Yuan & Lin (2021). In this study, 186 community and home-based elderly care service centers (CECSCs) in China were considered as DMUs in this study. This study aimed to evaluate the management performance of CECSCs in year 2018 using SBM-DEA in a thorough and systematic manner. The capital source, hardware facilities, and team composition were selected as the inputs. While service management, staff training, elderly care recipients, and organization management were the output variables selected as non-financial performance indexes for this study. In addition, they included financial position as a financial performance index to the output variables to determine

whether a company can effectively survive for a long time and continue to deliver services. 75 CECSCs out of 186 are effective and the rest 111 are invalid. They further reveal that the most efficient DMUs had well-equipped hardware facilities, a high degree of management standardization, and above-average service specialization. Meanwhile, the primary reason for DMUs with invalid efficiency values is that the current evaluation of CECSCs focuses solely on the hardware, ignoring the requirements for management efficiency. This reflects some problems in reality; that is, many CECSCs spend adequate funds to purchase hardware but ignore the operation management and service quality due to their poor reputation and low customer satisfaction.

Instrument efficiency

Perez & Cruz (2017) investigated a study that uses DEA to measure the international cooperation schemata (ICS) of the developmental projects funded by the Spanish Agency for International Cooperation for Development applied in African countries. The study's goal was to evaluate the efficiency of the ICS under the Spanish official development assistance (ODA). The sample of 48 international cooperation projects (ICS) were carried out in this study. Two African countries selected were Morocco and Mozambique. The study was conducted between 2002 and 2006 with the primary inputs were the purchases of raw materials, salaries, communications and other services, services from independent professionals, purchases of other supplies, repairs and maintenance, leasing charges and fees, and subsistence allowance. The outputs included of the number of activities, beneficiaries, areas, families, and organizations and duration in months. The result indicate that some schemata are more efficient than others when applied to international cooperation projects (ICS). Researchers discovered that permanent open-call subsidies are more efficient than non-governmental development organization subsidies. Additionally, the performance of instruments is higher on average in Morocco than in Mozambique.

Program efficiency and fundraising efficiency

Using DEA analysis, Vysochan, Vysochan, Lytvynenko & Hyk (2021) evaluate the financial efficiency of charitable organizations and its practical application in the sector of small charity in Ukraine. The tools were used to compare the efficiency of fundraising by 20 small charitable organizations in the non-profit sector of Ukraine in year 2019. The main indicator was the income from voluntary donations; the inputs were the number of staff and the administrative and other costs of maintaining the organization. Calculating the relative efficiency of fundraising activities led to the identification of the sector's top performers. They discovered that eight DMUs with a few numbers of employees and low maintenance costs were the most financially efficient and attracted the most voluntary donations. The most prominent leader was DMU15 (CO "Berezani Community Foundation"), whose fundraising activities can serve as a benchmark for most charitable organization as it was able to raise significant sums of donation in 2019.

Franco & Raja (2017) employ the non-parametric method of DEA to measure the performance of 172 Spanish foundations, framed within the sub-sectors of care foundations (80 organizations) and educational-cultural foundations (92 organizations), both of which are substantial to the national foundation in Spain for the period of 2008-2010. In this study, they utilized a method proposed by Charnes, Cooper, & Rhodes (1981) known as program or group efficiency, which distinguishes between two concepts: managerial or intra-program efficiency, which examines the performance of a given DMU in accordance to the "best practice frontier" within its group, and program or inter-program efficiency, which is able to recognize performance differences among existing programs/groups/sectors that are exclusively contributed to the nature of their productive action. The output selected was the number of direct beneficiaries and the inputs

consisted of staff costs, grants, donations and bequests, internally generated revenues, and total asset. In terms of managerial efficiency, they discovered that the care foundations were more efficient than the educational–cultural foundations. Educational–cultural foundations are more efficient than care foundations in terms of program efficiency.

The next paper reviewed was research conducted by Kim & Lee (2018). This study's objective was to develop models for analyzing the program efficiency and fundraising efficiency of 22 Korean NPOs in the sector of humanitarian assistance using DEA. The inputs for this study were the number of employees, labor cost, all contributions, and management and fundraising expenses gathered in 2017. The outputs were purposed program expenditure and the number of beneficiaries. As a result, 15 NPOs were found to be efficient in program efficiency and seven of 15 NPOs were discovered to be efficient in the fundraising efficiency. In total, four organizations were found efficient in both the program and fundraising efficiency.

CONCLUSIONS AND RECOMMENDATION

A compilation of ten papers from a published paper in the field of study was analyzed. This review gave a general overview of the research on measuring efficiency in nonprofit organizations, with a focus on the DEA approach. This review contributes to a better understanding of the research on nonprofit organizations by focusing on the various conclusions about measuring nonprofit organization efficiency and tracking changes in the organization's efficiency measurement using the DEA method. Additionally, combining several research streams and then examining the differences between them can help to extract the most crucial and pertinent ideas and give a framework for analyzing the results.

The current analysis supports several potential future research paths. Therefore, papers not included in the current evaluation could be reviewed in future studies. The review of several papers that describe the application of recently created DEA models in journals is another limitation of the paper. However, the most recent techniques that have been published in books are not covered in this review. Furthermore, this review paper classified published papers into seven different fields of application; as a result, future studies can categorize publications using DEA models in a wider range of application areas. Future research can also classify papers according to various organizations, sectors, industries, etc.

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The Influence Of Service Quality With The Carter Model On Customer Loyalty

Wahyi Busyro¹
Azwan Abdullah²

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: wahyi.busyro@umri.ac.id

ABSTRACT

The quality of service in terms of reliability, assurance, responsiveness, empathy, and physical evidence is still getting complaints from customers who feel uncomfortable and unsatisfied with the quality of service at Islamic banks. There are ATM errors that are still found, inadequate parking facilities, long queues in the transaction process, and unsatisfactory service from bank employees. This study was conducted to analyze the quality of service that has been applied by Bank Riau Kepri Sharia Sub-Branch Tembilahan to customer loyalty. Service quality as measured by the CARTER Model is compliance, assurance, reliability, tangible, empathy, responsiveness. The data collection technique used a questionnaire/questionnaire with a population of 194.664 customers and a sample of 100 respondents based on the Slovin formula with the sampling technique using simple random sampling. The research method used is multiple regression analysis (multiple regression analysis) using the help of IBM SPSS software version 17. The results obtained indicate that the quality of service compliance, assurance, reliability, tangible, empathy, and responsiveness have a significant influence on customer loyalty.

Keywords: Service Quality, Customer Loyalty, CARTER Model, Islamic Banks.

INTRODUCTION

Islamic banking is challenged to further diversify its products, to expand the funds and financing of Islamic banking. Islamic banks are expected to be able to build an image in the eyes of consumers with the uniqueness sought, so as to increase consumer loyalty. This is in line with the policy direction in the 2015-2019 Indonesian Islamic Banking Roadmap. 30 out of 34 Islamic banks (14 Sharia Commercial Banks and 20 Sharia Business Units) have a conventional Commercial Bank parent (parent/sister company). One of the strategic programs of the Financial Services Authority in the 2015 – 2019 Indonesian Islamic Banking Roadmap encourages the increase in the commitment of the parent of Islamic banks through increasing capital and business scale, improving efficiency through optimizing the role of the parent, and developing Islamic banking services to achieve a minimum share of 10% of the assets of the parent Conventional Commercial Bank, until the end of 2019, there were 8 Sharia Business Units that had asset shares exceeding 10% of the assets of their parent Conventional Commercial Banks (Financial Services Authority, 2019). The Riau General Meeting of Shareholders in 2001, approved the principle of establishing Bank Riau Kepri Syariah through the Sharia Business Unit. Starting with the Organizational Restructuring at Bank Riau Kepri by establishing a Sharia Business Unit based on the Decree of the Board of Directors No.44/KEPDIR/2002 on October 01, 2002. The acceleration of the establishment of Bank Riau Kepri Syariah was accelerated by the establishment of a Sharia Business Unit Development Team for Bank Riau with a Decree of the Board of Directors PT. Bank Riau No. 39/KEPDIR/2003 (bankriaukepri.co.id, 2021). The

development of Bank Riau Kepri from the last five (5) years is increasing, this can be seen in the table of fundraising as follows:

Table 1: Number of Customers Saving at Bank Riau Kepri Syariah Tembilahan for the 2015-2020 period

Type Tabungan	2016	2017	2018	2019	2020
Tabungan Sinar IB	89.451	98.748	109.721	120.074	141.617
Tabungan Dhuha IB	23.748	26.417	31.040	35.873	40.251
Giro IB	732	755	793	827	973
Deposito IB	1.325	1.559	1.858	1.924	2.146
Tabungan Sempel	-	4.643	4.576	6.095	7.531
Jumlah	115.256	132.122	147.988	164.793	192.518
Pembiayaan					2.164
Total					194.664

Source: Bank Riau Kepri, 2020

However, the development of the customers of the Riau Kepri branch of the Tembilahan branch is not in line with the quality of the services provided. Based on finding problems in the field is an Automated Teller Machine (ATM) machine system, errors often occur such as process failure, Automated Teller Machine (ATM) cards are rejected by the machine, make cash withdrawals at ATMs but money does not come out, and transfers to other banks often fail. Lack of Automated Teller Machine (ATM) facilities which only have three places, namely at the Branch Office, at the Sharia Sub-Branch Office, and at the Regent's office (Jumiarti, 2022). In terms of the condition of the Bank Riau Kepri Sharia Sub-Branch Tembilahan is also not strategically located very close to the road, causing the parking space that is owned is not wide, making customers uncomfortable when they want to park their vehicles if many customers come to the bank, and still in the form of shop houses that are not built. too large so that customers feel uncomfortable if too many customers are in the waiting room and there are some customers who also cannot sit in the room (Arbaiyah, 2022).

Service is the main key in financial institutions. Good service will give a good impression and image for the company. Good service can make customers come again (Pras & Sumadi, 2020). Customer satisfaction is not enough to maintain a company without loyal customers, because getting new customers costs more than retaining existing customers (Khadka and Maharjan, 2017). Customer loyalty is the key to success in financial institutions, because customer loyalty has a positive relationship with business performance. Loyalty not only increases value but can also increase the number of new customers (Idris et al., 2020). The results of research from Haron, 2020 state that the quality of service in Malaysian Islamic banking affects customer loyalty. Service quality here is measured by the Parkserv model. Banks must gain public trust by means of transaction security, quality services, fulfilling commitments and performing (Haron et al., 2020). Currently competition between financial institutions is very tight, various efforts are made to attract customers. If the customer is satisfied, it is expected that the customer will return again to make transactions. Competition in service quality requires banks to be able to provide quality products and satisfying services so that satisfaction after using can be obtained and will make customers make loans and make transactions again (Setiawan, Maria & Aziz, 2016). Based on the above background, the researcher wants to study further whether the quality of service provided by Bank Riau Kepri Sharia Sub-Branch Tembilahan has been able to meet customer loyalty. This study tries to contribute to Bank Riau Kepri Sharia Sub-Branch

Tembilahan in improving service quality by using the CARTER Model which includes six dimensions of assessment, namely Compliance, Assurance, Reliability, Tangible, Empathy, and Responsiveness. Service quality will have an impact on consumer satisfaction, where every consumer wants the products or services produced by producers to provide satisfaction to their consumers (Kotler & Armstrong, 2017). There are five service dimensions that must be met in service according to Zeithaml, Parasuraman and Berry, namely Tangible, Responsiveness, Reliability, Assurance, and Empathy (Tjiptono, 2018). Islam teaches that if you want to provide a good business in the form of goods or services, you should provide something quality for others. As explained in the Qur'an Surah Al-Baqarah verse 267, namely:

يَا أَيُّهَا الَّذِينَ آمَنُوا أَنْفِقُوا مِنْ طَيِّبَاتِ مَا كَسَبْتُمْ وَمِمَّا أَخْرَجْنَا لَكُمْ مِنَ الْأَرْضِ وَلَا تَيَمَّمُوا الْخَبِيثَ مِنْهُ تُنْفِقُونَ وَلَسْتُمْ بِآخِذِيهِ إِلَّا أَنْ تُغْمِضُوا فِيهِ وَاعْلَمُوا أَنَّ اللَّهَ غَنِيٌّ حَمِيدٌ

Meaning: O you who believe, spend (in the way of Allah) some of the results of your good efforts and part of what we bring out from the earth for you. And do not choose the bad ones and then spend from them, even though you yourself do not want to take them except by squinting your eyes at them. and know that Allah is Rich, Most Praiseworthy (Surat al-Baqarah: 267).

RESEARCH METHOD

Place and Time of Research

The research was conducted at Bank Riau Kepri Sharia Sub-Branch Tembilahan. This research was conducted from April to July 2021.

Population and Sample

The population in this study were customers at Bank Riau Kepri Sharia Sub-Branch Tembilahan, following the number of customers at the bank as follows:

Table 2: Number of Customers Saving at Bank Riau Kepri Syariah Tembilahan for the 2015-2020 period

Type Tabungan	2015	2016	2017	2018	2019	2020
Tabungan Sinar IB	78.177	89.451	98.748	109.721	120.074	141.617
Tabungan Dhuha IB	21.232	23.748	26.417	31.040	35.873	40.251
Giro IB	712	732	755	793	827	973
Deposito IB	1.075	1.325	1.559	1.858	1.924	2.146
Tabungan Sempel		-	4.643	4.576	6.095	7.531
Jumlah	101.196	115.256	132.122	147.988	164.793	192.518
Pembiayaan						2.164
Total Nasabah Tabungan dan Pembiayaan					194.664	

Sample selection using the Slovin formula, namely:

$$n = \frac{N}{1 + (N \cdot e^2)}$$

Where:

n = minimum number of samples

N = total population 194.664

e = critical value / desired accuracy limit 10% (percentage of allowance for inaccuracy due to error)

$n=194.6641+ (194.664) (0, 12)$
 $n=194.6641+ (194.664 \times 0, 01)$
 $n=194.6641+ (1.946, 64)$
 $n=194.6641.947, 64$
 $n=99,949$ atau 100 orang

Data Collection

Data collection techniques used in this research are interviews (interviews), questionnaires (questionnaires) and documentation methods.

1. Interview (interview) is a way of collecting data used to obtain information directly from the source.
2. Questionnaires or questionnaires are used in data collection techniques used by giving a set of questions or written statements to respondents to answer.
3. Documentation method is the method used to directly obtain the research location variables which include relevant books, regulations, activity reports, photographs, documentary films, and research-relevant data.
4. Analysis Method is Multiple Linear Regression Analysis is a tool used by researchers to calculate the effect of two independent/independent variables on one dependent variable (Riduwan, 2020). The equation formula used by multiple linear regression is:

$$Y = a + b_1X_1 + e$$

Description:

Y : Loyalty Customer

A : Konstanta

b_1, b_2 : Koefesien regresi

X_1 : Service Quality

e : error

Data analysis method

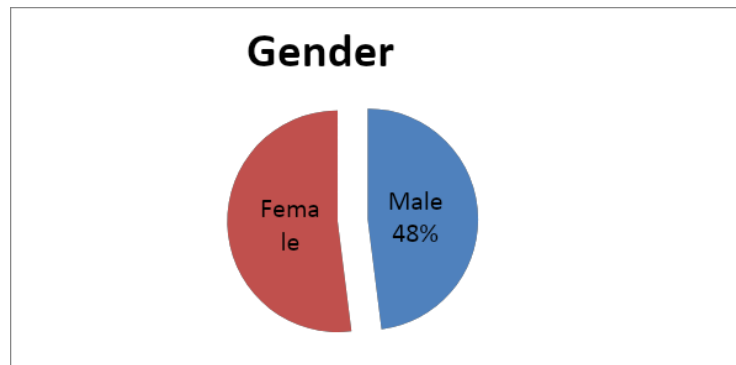
Multiple Linear Regression Analysis

Hypothesis test

Partial (t-test) According to Ghozali (2011) the t-test basically shows how far the influence of one independent variable individually in explaining the dependent variable. This test aims to examine the effect of the independent variable (service quality) on the dependent variable (customer loyalty) separately or partially.

RESULTS AND DISCUSSION

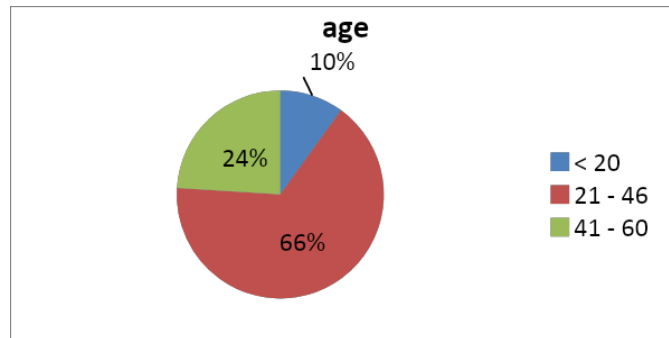
Respondent data used in this study were gender, respondent's age, education level, occupation, how long have you been a customer of Bank Riau Kepri Syariah Sub-Branch Tembilahan, how far do you travel from your home to Bank Riau Kepri Syariah Sub-Branch Tembilahan. In this study, 100 questionnaires were distributed to 100 respondents, all returned nothing was lost or damaged and all questionnaires were used for data processing. For more details, the characteristics of the respondents can be explained as follows:



Source: processed data

Figure 1: Respondents by Gender

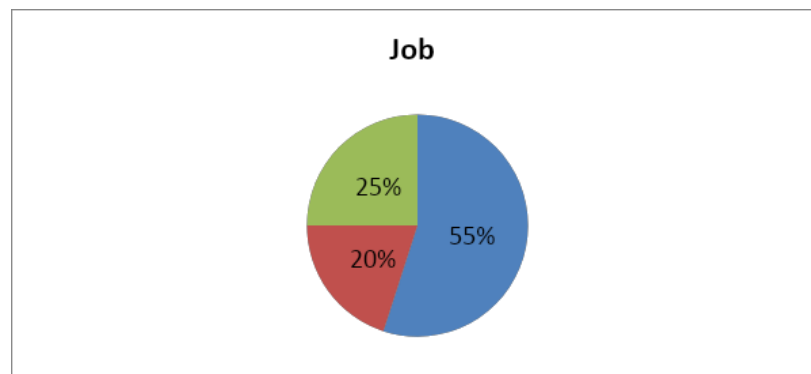
From table it can be seen that the majority of respondents from Bnak Riau Kepri Capem Syariah Tembilahan customers are women with 52 respondents (52%), while male respondents are 48 people (48%).



Source: processed data

Figure 2: Respondent by Age

From table above it can be seen that the majority of respondents are aged between 21-40 years as many as 66 people (66%). Followed by respondents aged between 41-60 as many as 24 people (24%), and aged <20 years as many as 10 people (20%). This proportion shows that customers who often visit Bank Riau Kepri Capem Syariah Tembilahan are customers aged 21-40 years, because that age is a productive age in the work environment.



Source: processed data

Figure 3: Respondent by Job

From table above it can be seen that the majority of customers work as civil servants / TNI / POLRI as many as 55 people (55%), while next are students / students as many as 25 people (25%), then private employees / entrepreneurs as many as 20 people (20%). This shows that the majority of customers of Bank Riau Kepri Capem Syariah are civil servants / TNI / POLRI.

Multiple Linear Regression Analysis

This method is used by researchers to determine the effect of the relationship of the independent variables, namely service quality (X1) and the dependent variable, namely customer loyalty (Y). The regression equation or model of the relationship between customer loyalty and the independent variables is arranged in the following function or equation:

$$Y = a + b_1X_1 + e$$

Table 3: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	19.315	4.598		4.201	.978
Kualitas Pelayanan	.325	.083	.329	4.358	.001

Note: Dependent Variable: Customer Loyalty

Source: Primary Data processed

Based on the regression equation model above, it can be interpreted as follows:
Based on the above equation, it is known to have a constant of 19.315. This shows that if the independent variables are assumed to be in a fixed state, then the dependent variable will decrease by 19.315. Service quality is worth 0.325, which means that if the quality of service increases by 1 unit, it will cause customer loyalty to increase by 0.325. To see the effect of service quality and product quality on the level of customer satisfaction significantly as well as to find out which independent variables have the dominant influence on the dependent. Based on the results of SPSS data processing, the following results are obtained:

$$t(a / 2 : n - k - 1) = t(0.05/2 : 100 - 2 - 1) = t(0.025 : 97) \text{ of } 1.984.$$

It can be concluded that the variables of Service Quality have a significant influence on customer loyalty. This is evidenced by the t-count value which is greater than the t-table value (1.984). Service is an important thing for the banking world. Good service quality will lead to a good perception of customers, the higher the level of service quality provided, the higher the level of customer satisfaction, this includes the overall quality of service, which is measured through 6 (six) dimensions, namely: Compliance, Tangible (physical evidence), Reliability, Responsiveness, Assurance, Empathy, Quality of service has an effect of 0.325 on customer satisfaction at Bank Riau Kepri Capem Syariah Tembilahan. This means that if the quality of the product is increased by 1 unit, it will have an effect on increasing customer satisfaction of Bank Riau Kepri Capem Syariah Tembilahan by 0.325. This shows that the customer satisfaction of Bank Riau Kepri Capem Syariah Tembilahan is influenced by the quality of services that are run and provided.

It can be seen in terms of compliance, employees have implemented Islamic law every day, such as praying five times a day, reading the Koran, and fasting obligatory and sunnah. The positive things that these employees do definitely encourage them to do or carry out their duties honestly, trustworthy, and correctly according to Islamic law, then it can also be seen that the bank's operational activities are in accordance with Islamic law, the contracts used are in accordance with Islamic law. Islam, explained in detail to customers who want to save or do financing. Then they also do not use an interest system but a profit sharing system for several products.

Then it can be seen from the aspect of assurance, employees are polite to customers, serve customers in a friendly manner and open the beginning by greeting and welcome, explaining and providing understanding to customers about existing products, thus making customers feel comfortable and safe. Then every month they also hold activities to train in terms of serving customers for all employees, both internal and external to the office. In terms of reliability, although there is still a shortage of employees, especially in the teller and customer service divisions during peak hours or when customers are busy, they can still solve and provide timely service, and can solve problems that customers complain about. Then, in terms of tangibles, it can be seen that even though the parking area is inadequate, the interior of the office is very clean and neat and although it still has a room that is not too big, and for the use of technological tools that help customers and employees in carrying out activities and the transaction is quite good.

Furthermore, in terms of empathy, it can also be seen that employees treat customers very well, do not differentiate between customers, and make customers comfortable so that they feel facilitated and feel comfortable with these employees. Previous research conducted by Haroon (2020) which tested service quality using the Parkserv model on customer loyalty. The study found that service quality had an effect on customer loyalty. Other studies include Shankar (2020), Boonlertvanich (2018), and Tabrani (2017). Finally, in terms of responsiveness, although it still does not have enough branches in the Tembilahan area, Bank Riau Kepri Capem Syariah Tembilahan remains fast and thorough in serving its customers, and still has a good response to customers and then there is always a willingness to help customers.

CONCLUSIONS

Service quality affects customer loyalty. In this study using the CARTER model where there are six (6) dimensions of service quality. This model is used to measure service quality on customer loyalty, including compliance, reliability, responsiveness, assurance, empathy. These six (6) dimensions affect customer loyalty.

ACKNOWLEDGEMENTS

Thanks to all parties involved in this research. Hopefully this research will be useful for academics and parties involved. Suggestions and criticisms are needed to improve writing in the future.

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Investment Model and Leadership system of private universities in China

Zeng Chun Long¹
Roselina Ahmad Saufi²

Faculty Of Entrepreneurship and Business, University Malaysia Kelantan,
MalaysiaCorrespondence email: 690627947@qq.com

ABSTRACT:

This paper 's main idea is Investment Model and Leadership system of private universities in China. Investment of the Chinese private universities generalized for five kinds of patterns include citizens' personal investment, private organization investment, stock, donated, public-private joint investment. The author analyzes the relationship between the role in the power of private universities like the private investors, the principal and other operators and producers of private university, the supervisors accredited by government. The paper puts forward the corresponding leadership forms of private colleges and universities, such as one-man leadership, board leadership, committee leadership and joint decentralized leadership, and expounds the influence of investment mode and leadership form on the internal operation of private colleges and universities.

Keywords: Private Universities; Investment Model; Leadership System; Influence.

RESEARCH BACKGROUND

In the late 1990s, after 20 years of reform and opening up, China's economy was booming, with its GDP growing 24 times from 367.87 billion yuan in 1978 to 9,056.4 billion yuan in 1999. With the rapid development of economy, the demand for talents in various industries has increased sharply. As the main position of talent training, higher education schools are far from meeting the requirements of the society. In order to ease the social anxiety of the desire for high-quality talents, the government began to allow and encourage private capital to enter the university field. Since the 1990s, private universities have emerged in China and expanded rapidly. By 2021,762 new private universities are offering professional courses and diplomas from specialized courses to master's degrees.

THE QUESTION

Private universities in China are established by investing (or injecting) private capital. The private capital mentioned in this paper refers to non-government capital, non-state-owned capital or private personal capital. Why does this capital pour into higher education to invest? There are roughly several reasons:

One is the government to encourage policies, such as can use very cheap price to buy land (even some local governments give land directly), open higher education tuition

price restrictions (means can charge high tuition), some preferential tax policies and other support private capital investment in higher education, these policies make the cost of investment in higher education is lower and may be higher returns, the capital profit makes a lot of private capital into the field of higher education.

Second, the society does have the demand for higher education talents is urgent, because China has long been the state ownership as the main body of economic operation mode, after the reform and opening up although free of private investment, but the private economy is still weak in the society as a whole, at that time, many private enterprises can not recruit suitable highly educated talents, many private capital for private universities just want to cultivate suitable for enterprises or industry talents.

Third, the utilization rate of many state-owned higher education resources was not high, but limited to the government's strict management of state-owned assets, they needed to invigorate these resources in a more flexible way. Therefore, they found ways to cooperate with private capital to enter the field of higher education, etc.

Whatever the reason, private capital investing in higher education and investing in private universities is a major event in the history of China's higher education. In terms of general knowledge or from the principle of management, who invests who owns, and makes the final decision. Therefore, the fact that private investment makes the leadership system and management mechanism of private universities different from state-owned universities, and the operation and talent training of private universities are greatly affected by this.

This paper tries to investigate the investment mode of the private universities in China, find the relationship between the investment mode and its leadership system, and then analyze the influence of the leadership system on the internal management, teaching operation and student training of the private universities.

THE INVESTMENT MODEL OF PRIVATE UNIVERSITIES IN CHINA

In general, the investment model of the private universities in China is mainly divided into the following modes from the initial funding sources:

Individual citizen investment model

The starting funds of colleges and universities belong to individual citizens, that is, some individual citizens have certain educational feelings, and hold private colleges and universities in order to realize certain educational ideals or to obtain higher return on investment. Some investors are engaged in the early training industry, by holding some non-academic education training courses accumulated the original capital, gradually grow, when the government policy open, they saw the opportunity to hold higher education diploma schools, such as Guangzhou business school in Guangdong province, the Yellow River institute of science and technology in Henan province, China well-known private colleges and universities belong to the situation. Some investors are themselves engaged in other businesses and have become rich from other businesses, thinking of giving back to society and transforming themselves to private universities, such as the Heilongjiang Sanjiang Academy of Fine Arts in Heilongjiang Province and the Xi'an Foreign Affairs University in Shaanxi Province. Some investors themselves are well-known professors or scholars in universities. In order to realize their higher education dreams, they can finance private universities, such as Private Hualian

University in Guangdong Province and Xi'an Translation University in Shaanxi Province. More private investment of private universities is considered that holding private universities is a high return of investment, and choose to invest in order to obtain high returns.

Private institutional investment model

Many private colleges and universities are funded by certain private institutions. It is divided into the following situations:

Physical enterprise investment type

For example, Neusoft Group, whose main business is a large private enterprise operating computer software and hardware, respectively. In order to obtain stable new employees, the enterprise has invested in three independent software colleges in Dalian, Liaoning Province, Chengdu, Sichuan Province and Fushan, Guangdong Province. Country Garden Group, a large private real estate company in southern China, has invested in a private university.

Education group investment type

Some private colleges are initially invested by or started by private companies and then acquired by education groups. China Education Group Holding Limited, for example, has invested in eight private universities and four private vocational education schools in China. Top Group has set up four independent information vocational and technology colleges in Shanghai, Chengdu, Suzhou and Shaoxing respectively.

Joint-stock model

Joint-stock model investment in private universities is also divided into several situations: It is the partnership shareholding system between natural persons. At the beginning of some private universities, the organizers adopted the shareholding model of financing to raise enough funds for the operation of the school. The Heilongjiang Oriental University, for example, was originally funded by four organizers, and the Pearl River University in Henan Province was originally invested by three shareholders. Second, the cooperation between enterprises. Some private universities are funded by several enterprises through the form of shares, such as some private universities in Zhejiang and Jiangsu provinces.

Donation model

One is divided into two kinds, like Guangdong Peizheng College in Guangdong Province, which was founded in 1993 with more than 80 million yuan from the alumni of Peizheng Primary and Secondary School. All the donors do not seek a return, and all the proceeds belong to the school itself. The other is social donations, such as Zhejiang West Lake University, which is funded by the Hangzhou West Lake Education Foundation.

Public-private joint venture joint investment model

Among the 265 private universities in China are invested in this mode. Generally speaking, a well-known public university and an investor or enterprise jointly organize an independent private university, which has a unique name "Independent College" in China.

The leadership system of private universities in China

Does the different investment model affect the leadership system of private universities in China? The answer is yes.

The composition of university power

As we know, the establishment and operation of the leadership system in any university is the result of the game between the four powers (or groups). These four powers refer to the ownership of universities, the operation right, the supervision right and the consumption right of universities. In colleges and universities, the utility of its leadership system and the internal operation of the system depends on the game degree and balance of the above four rights.

The exercise of power in public colleges and universities

In public colleges and universities, because the school is established by the government, with financial allocation as investment, in public universities, the government has ownership, the government through a certain program selection of professional management operation team, exercise operations, the government set up a special agency (such as the Ministry of Education, department of education), and the news media, units of choose and employ persons and the public of university operation and management and its utility supervision, exercise supervision, students are consumers of universities, they vote with their feet in the way of university education, exercise the consumption power. Only, Public colleges and universities, which are owned by the government, The government's goal is not to make a profit, Instead, higher education is offered to society as a public good (or at least a quasi-public good), The university operation and management team selected by the government and their employed teachers or employees do not consider the cost of the university operation (or at least rarely considered), Its main responsibility is to produce qualified talents according to the requirements of the government, Or do some research to achieve results, Or to provide some social services that will benefit the public, In order to make the university operate efficiently internally, It also takes into account the balance and restriction of power, The internal power leadership system of public colleges and universities is the principal responsibility system under the leadership of the Party committee, That is, the government selects a multiple committee of multiple Communist party members, Major affairs of colleges and universities are collectively discussed and decided by the committee, exercise collective leadership, Also considering the administrative efficiency, Choosing a professionally appropriate person from the committee as the principal, In charge of daily teaching or administrative affairs. Since the leaders of colleges and universities are selected and appointed by the government, they are responsible to the government, and the government has a complete set of bureaucratic operation system or rules, so China's colleges and universities are affected by this, and the characteristics of bureaucracy are more prominent. Because it is a public good, the market rules in colleges and universities is not very effective, all the college tuition fees is just a kind of

educational cost allocation, therefore, students are not by pay more fees enjoy more quality education services, but only rely on the exam scores into different colleges and universities, the influence of college power operation is limited.

The power composition of private colleges and universities

The power operation of private universities has undergone some different changes because the investment subject becomes private. First, the government can not directly select or appoint the management and operation teams of private universities. The government influence and restriction on private universities are indirect, Mainly through several ways: First, to formulate laws and policies, The Law on the Promotion of Private Education was promulgated, All private colleges and universities are required to strictly comply with it; Second, to pass the review, In other words, the government will regularly organize experts to evaluate the effectiveness of private colleges and universities, To guide private colleges and universities to run schools according to government norms; Third, through the approval and approval permit, Mainly for tuition price approval, new professional approval, enrollment approval, etc.; Fourth, the dispatch of commissioners to conduct on-site supervision, The government sends education supervisors to each private university (also the party secretary of the university), To ensure that the running of private universities is in line with government policies, regulations and political correctness. Second, the core of the power of private universities lies in the school board composed of investors or investors. Since the school is funded by the investors, the investors naturally acquire the school leadership. All the employees (including the principal) of the school are appointed by the investors, all the construction is responsible for by the investors, and the internal operation rules are formulated by the investors. In general, private universities implement the principal responsibility system under the leadership of the board of directors. The principals of private universities and their management and operation team are constrained by the investors to exercise their management or operation rights within the scope defined by the investors and are responsible to the investors. Because private universities pursue more economic benefits than public universities, students entering private universities need to pay higher tuition fees, but at the same time, they have more influence on private universities.

The Power Game Model of Private Universities

In order to have a better understanding of the power operation and the internal game of the private universities, we first do not consider the external factors, that is, the influence of the government and the public on the power operation of the private universities, and only investigate and construct a model of the operation game from the perspective of the power interaction within the private universities. Private university investors or on behalf of the board of directors of private universities, in private universities, to the school is complete control, the exercise of power is completed, but when the board hired professionals set up school management team, the board of directors must to the principal (represented by the principal represented by the operation team) authorization, the purpose is to let professional people do professional things, so as to improve the operating efficiency of the school, the principal must hire professional professors or teachers as college products "producers" to join, so as the producer of teachers also obtained the transfer of the corresponding power. In the early days of private universities, the power operation of schools was actually a process of investors gradually

transferring school power in order to obtain more efficiency. When private colleges and universities gradually develop, as the actual school operation management team and as a school product producer role of professors and teachers more and more find their human capital value, especially those who enjoy high management authority principal or have great research achievements of professor or teachers, etc., and because of the team for a long time, began to unite, have more and investors (board) bargaining chip. And as a physical or capital investment investors (board) found that if do not meet the operation team or professors some power requirements may lead to they leave school and suffer more losses, or even if they don't leave, but can not stimulate their real work enthusiasm is a great loss of efficiency or reputation. So the two sides have a new negotiation space, university operation team or professor team in addition to the normal salary, investors (board) will continue to transfer more power to them, including school team members, certain financial autonomy, teaching and research activities of "production" decision-making, etc., even the principal into the board decision-making body or give options, equity, share out bonus additional incentives, in this way, the school operation team and production team to strengthen the control of the school.

Will investors delegate power to operators and producers? Obviously not. So where is the boundary of this power transfer? Let us express it in economic terms: If we express the power of universities in R , the power of investors is expressed in IR , the power of operators and producers in MR , the interests of investors in IP , the interests of operators and producers are expressed in MP , and the utility of investor power is expressed in U . When private universities are established, $R=IR$, and all the power of universities belongs to investors. When the investor appoints the operator and the producer, $R=IR + MR$, at this time, the condition $IP > IU$ must be met, that is, the power utility lost by the investor in transferring the power to the operator and the producer is less than the investor benefits brought after the transfer of the power. When $IP=IU=MP$, the power of investors, operators, and producers is balanced.

The role of the student factor in the formation of the leadership system in private universities

In private universities, students are particularly positioned as well. It is not only the "product" of private universities, but also the "consumer" of private universities. In private colleges and universities in China, investors just in the early stage of the investment to buy the land, built the necessary classroom laboratory and teaching facilities, and hired the operation team and teachers team, when the school began to recruit students, the main part of the school daily operation funds comes from students' tuition, even some private universities rely on students' tuition degree is particularly high. Therefore, students' requirements, preferences and ideas have a great influence on school leaders. With the enhancement of students' awareness of rights, students' supervision and influence on the school are constantly increasing, which has a strong restriction effect on the decision-making and management of private university leaders.

The form of the leadership system of private universities in China

Generally speaking, the leading institutions of private universities in China are divided into two categories, as shown in the figure below:

As shown above, the private university board of directors at the top of the school power, the principal is the school operation and management of the executive, through the

organization or hire various professional personnel operation management of the school specific affairs, the school party committee is the school political organization, the secretary appointed by the government, as the government education supervision, supervise the school direction, other such as the school board of supervisors, trade unions, students and other institutions, some involving the interests of the school, employees, students to supervise the administration of school decisions and implementation. Generally speaking, the leadership system of private universities in China is the principal responsibility system under the leadership of the board of directors, but in specific forms, they are influenced by the investment mode of the schools:

One leader type

Some individual citizens to invest in private universities, the investors themselves have a certain ideal of higher education, and have the relevant experience in higher education management, often use the form of one-person leadership to establish the leadership system of the school, that is, the investors are both the chairman of the school and the principal of the school. Under this system, the administrative efficiency of schools is very high, but it often shows the disadvantages of authoritarian leadership.

Board leadership type

Under the mode of stock investment, enterprise investment or joint investment, the leadership system of private universities is generally the board of directors. Under this form of leadership system, the school is regarded as an enterprise in the operation, and the pursuit of the school profit, often ignore the normal law of higher education, the school will often form some small factions, the work of internal consumption is very large, the efficiency is not high.

Committee leadership type

The private colleges and universities with the donation mode adopt the form of committee leadership, which includes donors, social celebrities and education experts. The committee is not only a professional higher education consulting institution, but also performs the functions and powers of the school board. This kind of leadership form considers the problem of whether the board of directors is professional and fully delegating power to principals. Theoretically, it is the ideal form of leadership in private universities, but there is also the problem that principals have too much power and often lose supervision.

Joint decentralization and leadership type

Independent colleges in private universities often adopt this form of leadership. As the school is attached to a well-known university, the investors and the parent school often adopt the decentralization system, the chairman is the investor, the principal is often sent by the parent school, and the operation of the school is basically in accordance with the model of the parent school. Under this form of leadership, due to the comprehensive support of the parent school, the early development of the school is rapid. When the school grows, there are often contradictions of uneven distribution of interests. The conflict between the chairman and the principal often occurs, which loses the efficiency of the school and affects the development of the school.

From the perspective of the influencing factors

Investment purpose and intensity

The investment purpose of private university investors has a great and even decisive impact on the operation and management of the school. Some school investors to the school as a business, the purpose is to profit, therefore, the center of the school work on the one hand is to expand the scale of enrollment, charge more tuition fees, on the other hand is the cost savings, often not according to the law of higher education, ignore the school discipline development, ignore the connotation construction, attaches great importance to the short-term interests and ignore the long-term investment. Running a university requires long-term investment. Some private university investors, limited to their own insufficient capital strength or insufficient confidence in the future, can not continuously invest in the university for a long time, or even do not invest, which directly affects the development of the university.

Degree of decentralization between the board and the principal

Running a university is a very professional thing, and the products of colleges and universities are not what can be produced by one person, but need the overall strength, efforts and atmosphere. Some private university investors don't understand education, but do not want to more decentralization to professional principal, often willing to do things according to the market economy, lead to the school behavior is not for the purpose of cultivating talents, ignore the school discipline, professional infrastructure, school filled with a strong business atmosphere, professors and teachers have a strong worker mentality, cannot sink down to academic things. In some private colleges (especially independent colleges), the board of directors has a low restriction on the principals, and the principals have too much power. They often operate and manage the schools according to the style of public colleges and universities, resulting in the lack of vitality and the gradual rigidity.

Successor problem

After decades of development, many of the first-generation investors in The private universities in China are very old, and some have even passed away, which is a serious problem: investors' lack of energy or insufficient ability to succeed. When a private university does not establish an effective leadership system in advance, and relies more on the personal ability and vision of the leaders, the problem of succession becomes more prominent. Many private colleges and universities are just because of the problem of successors, and make the school development is greatly affected or even stagnated.

Government constraints

On the one hand, the government adhere to the positioning of the public goods, hope that private universities is public welfare, does not allow private university investors withdraw investment, on the other hand, and response to calls from investors, allow investors to have "reasonable return", policy is too general, uncertainty, hindered some investors, also make the investment threshold of private universities become higher, prevent new funds into the field of private universities. The government's regulation of the leadership system, operation and management, and even education and teaching of private universities is too detailed, and some interference is too much, which hinders the rapid development of private universities by using their own flexible mechanism.

From the perspective of the affected objects:

Influence school culture

Private school investors and other leaders' overall school ideas, purpose, principles, behavior and other methods will affect other employees and students of the school, and gradually form a certain value orientation and behavior mode, and precipitate down into the culture of the school. From the perspective of empirical investigation, the business atmosphere of private universities pursuing economic benefits is very strong, with employees consider more benefits and costs and economic gains and losses; and private universities pursuing talent quality have a strong academic atmosphere and will do more things from a professional perspective or technical means.

Affect the efficiency of school management

Generally speaking, when a school is small, a leadership form has the highest administrative efficiency with a committee leader; when the school scale becomes larger, the centralized leadership process often makes mistakes and repeats, but the efficiency is not high, and the professional leadership efficiency increases with the emphasis on decision-making process and work process.

Affect the connotation and development of the school

Private university running is a process of continuous development from small to large, from coarse to fine, from low academic level to high academic level, which requires long-term planning and patient continuous progress. It is particularly important whether investors and school leaders have enough vision, long-term thinking, lasting investment, and a larger landscape.

Affect the quality of talent training

The choice of investors and school leaders on school scale and efficiency, the importance and investment to education and teaching, the evaluation and measurement of students 'training quality, the attention to students' demands and service level will ultimately affect the quality of the school's overall talent training.

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A brief analysis of the disadvantages of family businesses and development strategies

Huang keng¹
Sathiswaran Uthamaputhran²

Faculty of Entrepreneurship and Business, University Malaysia Kelantan, Malaysia
Correspondence email: a20e0293f@siswa.umk.edu.my

ABSTRACT

As the main body of the private economy, how to choose a management method suitable for the family enterprise and take a sustainable development path is the key to the growth and expansion of the family enterprise, the article analyzes the disadvantages of family management from the issues of corporate culture, employment mechanism, and property rights, and puts forward a number of countermeasures and suggestions for improvement on its existing problems.

Keywords: Family Business; Family Management; Separation of Two Rights.

INTRODUCTION

The existence of family-run business is a universal phenomenon, not only in developing countries, but even in highly developed countries such as the United States, enterprises that adopt family-run business models account for the vast majority of enterprises. About 40% of the world's top 500 companies are family-owned. A family business is a governance model in which ownership and management rights are not separated, the enterprise and the family are united, and the main control of the enterprise is allocated among the family members. There is no essential difference between family management and the modern enterprise system, and it is a means of corporate governance rather than an end. Today's research on corporate governance of private enterprises is mainly carried out around the family system characteristics of private enterprises from the aspects of trust mechanism and organizational methods. As the main body of the private economy, family businesses have low operating and management costs; Strong cohesion within the enterprise; High decision-making efficiency; Incentive and constraint dualization and other incomparable advantages of other types of enterprises, but with the gradual realization of the original accumulation of enterprises, the scale of enterprises gradually expanded, and the operating time was gradually extended. Problems in family businesses are increasingly being exposed.

RESEARCH METHOD

This paper mainly through theoretical induction, logical reasoning to conduct research and exploration, specifically using the literature access method, qualitative interview method, logical reasoning method, questionnaire survey method and other research methods, through the review of a large number of existing system academic literature, management disciplines, behavioral disciplines and innovation and entrepreneurship disciplines and other aspects of the research results, first explore the problems existing in the operation of family businesses, and analyze the current stage of family business management there is too much emphasis on college relations, nepotism, property rights closed, Problems such as parental centralization and lack of

incentives for the human capital of non-family companies, and through research and analysis, a number of improvement countermeasures and suggestions are proposed.

RESULTS AND DISCUSSION

The study found that although the family-run business model has played a positive role in the development of an enterprise, its potential negative effects cannot be ignored. Only when entrepreneurs recognize the shortcomings of their own enterprises and overcome them can they make the enterprise successful. grow towards sustainable development. Through literature reading and field research, the author conducted in-depth exchanges with the managers of multi-family enterprises, gained a certain understanding of the mechanism and operation mode of family-owned operation and management, and analyzed the problems existing in the operation and management of family enterprises at this stage.

Too much emphasis is placed on blood relations

Family business is based on blood ties, as a way to unite family members, family governance is usually the pursuit of family interests as the primary goal. The growth of the enterprise is inseparable from the harmonious coexistence and hand-in-hand progress of family members and employees, which brings a strong centripetal force and outstanding work performance to the enterprise. Because employees within the family receive more trust than employees outside the family, this indirectly leads to various distributional inequities. When there is a conflict between the ability and loyalty of employees within the family and outside the family, the family business usually chooses the loyalty of the family members and gives up the ability of outsiders. This results in a lack of integrity in the governance team of a family business.

Cronyism

There is a clear commonality in the employment mechanism of enterprises that adopt family-run operations, cronyism. Family members have more trust than non-family members, non-family members are difficult to hold important positions in the enterprise, many of the family members are used within the enterprise, but there is no strict manager, family members are less constrained by standardized management, various rules and regulations are difficult to implement in place, and the degree of confusion in enterprise management can be imagined. "Nepotism" is often because an enterprise uses family members, so that external managers can not manage, and even because of the distrust of outsiders, vigilance everywhere, emphasis on family affection, not heavy ability, so that some non-family members with both ability and political integrity are difficult to reuse in the enterprise, resulting in vague definitions of individuals in terms of rights, responsibilities and interests, making the internal system of the enterprise loose and the management chaotic. In order to preserve their unshakable dominance, the managers of family enterprises implement a high degree of controlling rights in operation, and this unified property rights system makes it impossible for outside funds to participate in the shares, hindering the further development and growth of the enterprise. In order not to outflow shares, it is difficult to develop enterprises only by relying on their own capital accumulation. If enterprises want to develop, they must be able to grasp the trend of the market and effectively integrate various social capitals, and the closure of property rights will only restrict the development of enterprises. After enterprises reach a certain scale, they must take the road of opening up property rights, use various means and forms to absorb foreign participation, and realize the diversification of investment entities.

Parental centralization

Family businesses basically implement a patriarchal centralized management model, and the major decisions of enterprises are often decided by individual parents. There are even some enterprise managers who regard themselves as entrepreneurs, monopolize power, deliberately establish absolute authority, and blindly confident and arbitrary when making strategic decisions in enterprises. In fact, the status of parents as leaders and the charisma of personality are formed by their entrepreneurial experience, style, ability, authority, talent and achievements. Parents' philosophy, style, ability and experience. Knowledge and so on deeply affect the survival and development of enterprises. In the early stage of enterprise entrepreneurship, due to the excessive concentration of power, arbitrary decision-making, and excessive dependence on parents, the honor and disgrace of the enterprise and the survival of the enterprise are all tied to one person. As a result, the management level of the entire enterprise has declined, the vitality has weakened, the efficiency has decreased, the organization has been rigid, communication has been blocked, the market response has been slow, the cohesion and sense of belonging of employees have declined, internal corruption has been differentiated, the struggle for power and profit has been severe, and the factional struggle has been serious, resulting in the decline of the enterprise. In addition, parents' personal decisions are usually arbitrary, which is easy to take the enterprise in the wrong direction and ultimately affect the continuing operation of the enterprise.

Property rights are closed

In order to preserve their unshakable dominance, the managers of family enterprises implement a high degree of controlling rights in operation, and this unified property rights system makes it impossible for outside funds to participate in the shares, hindering the further development and growth of the enterprise. In order not to expel shares, it is difficult to develop the enterprise only by relying on its own capital accumulation. If enterprises want to develop, they must be able to grasp the trend of the market and effectively integrate various social capitals, and the closure of property rights will only restrict the development of enterprises. After enterprises reach a certain scale, they must take the road of opening up property rights, use various means and forms to absorb foreign participation, and realize the diversification of investment entities.

Lack of incentives for the human capital of companies outside the family

Family management with a certain degree of closure, coupled with the family business has the characteristics of family and enterprise unity, the concept of family interests of business managers is serious, some take a family atmosphere in the company, the purpose is to make employees have a sense of loyalty and belonging, so that there is a certain role in improving the cohesion of the enterprise, but this only plays a role in stabilizing the human capital outside the company, but it does not play its due role in incentives, because the family governance model is hierarchical, Coupled with the manager's concept of family interests, the formation of the enterprise is an extension of the family and other concepts of consciousness, in the enterprise is in urgent need of talent to join the time only choose to select from within the family, and employees outside the family because they do not hold the company's shares, work is excluded, empty ability but can not get the corresponding promotion, family members of the manager with their own special status, privileged behavior is serious, do not do practical things, but obtain excess benefits, which is a great blow to the implementation of the management system and incentive mechanism of the enterprise, It even seriously affects the work enthusiasm of non-family members, so that the ability of non-family members with human capital potential cannot be exerted through effective forms, resulting in a huge waste of human capital of the company, which in turn affects the continuous and stable operation of the enterprise.

Countermeasures and recommendations

Changes in the market and the situation require that family businesses should keep pace with the times in management, make timely changes, and establish a new management concept. Specifically, for family businesses to continue to develop steadily, they need to be reformed in the following ways:

People-oriented, the establishment of a scientific management system

The managers of family enterprises should abandon the old management ideas, establish a people-oriented management concept, establish a scientific management system, handle the relationship between the ability and rights of people, strictly limit family feelings outside the enterprise, so that the job position is consistent with the work ability, the work promotion is consistent with the comprehensive ability, as far as possible to avoid the influence of blood, kinship, and affection on people, scientific and rational use of talents, improve the efficiency of the use of human resources, emphasize equal cooperation, respect for the personal dignity of others, Fully mobilize the initiative and enthusiasm of employees, establish a scientific and reasonable talent selection and training system, and the corresponding remuneration and incentive system. Strengthen the education and management of family members, attach importance to the guidance and communication of non-family members, and fully mobilize the enthusiasm of employees outside the family. Make the upper and lower levels work together and coexist harmoniously to form an important pillar of enterprise development, so that the enterprise is always in an invincible position.

Gradually dilute the familial character of management

In the operation and management of family enterprises, due to the extensive participation of family members, the goals of the enterprise are confused with the family goals, which makes it difficult to implement the rules and regulations of the enterprise, and the experience and perceptual decision-making exceed rational decision-making, so that the management effect is greatly reduced. Therefore, family enterprises should gradually shift from paternalistic management to scientific management, gradually dilute the color of family management, and lay a good management foundation for the sustainable development of enterprises.

Gradually realize the separation of ownership and management rights

Because family members control the ownership and operation and management rights of the enterprise, the family business can maintain a high degree of stability in management and control like the family. However, many family members do not have professional business management knowledge, and the limitations of their own knowledge greatly limit the development of enterprises, and the high degree of unity of ownership and management rights will lead to the lack of momentum for further development of enterprises. With the development and growth of family enterprises, enterprises must implement professional management in accordance with the business philosophy of modern enterprises, separate the operators of enterprises from managers, and realize the separation of two powers, so as to make enterprises full of vitality and enhance the competitiveness of enterprises.

Under the premise of family control, the separation of ownership and management rights is realized, on the one hand, it is conducive to the selection and use of talents of enterprises, attracting professional management talents, and further improving the human resources situation of family enterprises; On the other hand, it is conducive to establishing a standardized

corporate governance structure, modernizing management, and improving the scientific nature of major decisions. At the same time, the enterprise can introduce the legal person governance structure of professional managers, and hire talents outside the family as general managers, which can alleviate the problem of poor management caused by nepotism in family enterprises to a certain extent, so that enterprise management can move from family to professional and improve the efficiency of management.

CONCLUSIONS

As a unique business model, the existence and development of family management in a long period of time is historically inevitable, and its existence has its inevitability and rationality. If a family business wants to develop and want to gain a firm foothold in the wave of economic development, it must dilute the characteristics of family from the management, and realizing the separation of ownership and management rights is one of the basic methods to dilute the characteristics of family. Therefore, in terms of management, the managers of family enterprises should understand and face up to the shortcomings of their management models, make full use of their strengths and avoid weaknesses, and carry out changes in a timely manner, so as to make the family-run enterprises invincible.

ACKNOWLEDGEMENTS

My heartfelt thanks to my supervisor. Thanks to the strict requirements of the supervisor to me, the supervisor's rigorous academic style and tireless enterprising spirit make me admire and deeply inspired, during my writing period, the supervisor often takes time out of his busy schedule to give me patient guidance and enthusiastic help in various ways

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Analysis of the impact on the loss of bank users in the context of digitalization

Chen ZaiDie¹
Fatihah Binti Mohd¹
Nurul Ashykin Binti Abd Aziz²

¹²³Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: scuchen@gmail.com

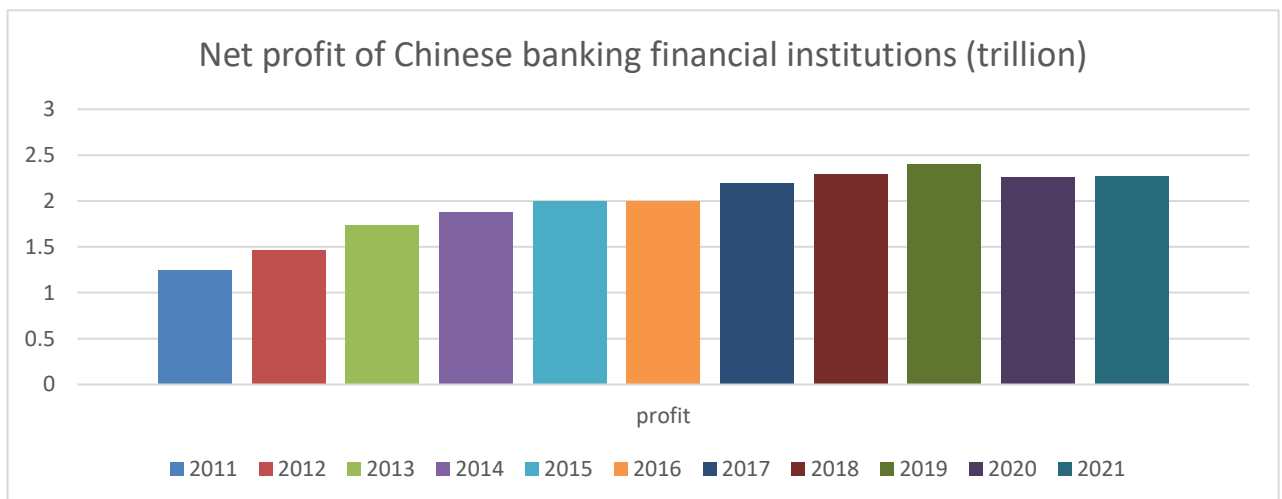
ABSTRACT

In recent years, banks have faced declining asset profitability and capital profitability. At the same time, with the development of technology, the cost of technology is increasing. In China, the state has put forward the strategic goal of digitalization. At the same time, regulators have also made clear the investment and construction of financial technology. requirements, thus creating an internal productivity-benefit ratio contradiction in the context of fintech's growing growth and declining revenue. In addition, investment in science and technology will bring competition, and competitors will continue to propose new technological means to convert customers, and plan products and services according to user needs. The core of the contradiction, if one party cannot respond to user needs in time, users will continue to lose and lose valuable customers, which is also a verification Given the contradictory explanation that fintech investment cannot bring benefits, it is the core issue if technology investment cannot improve insight into user needs. In general, it reflects the contradiction between supply and demand between user needs and the services provided by banks. At the core of solving the problem, it is necessary to form a set of users UTAUT model suitable for banks through the user behavior analysis model, consumer value model and UTAUT hybrid model, to clarify the user's social expectations, effort expectations and performance expectations indicators, and then combine bank services. Through questionnaires, we can gain insight into the needs and tendencies of different types of users and obtain different characteristic elements such as financial grade needs, gender type needs, and capital transaction needs through analysis, so as to find the key indicators that affect the changes in user needs. The research model can finally put forward the influencing factors, point out a method to improve the bank's understanding of user needs, develop products and improve services, effectively solve the contradiction between user needs and bank service supply, and indirectly improve the bank's income.

Keywords: Bank Users; Loyalty; Supply and Demand; User Behavior Analysis.

INTRODUCTION

According to the report of the People's Bank of China and the National Bureau of Statistics of China, in 2019, in the face of the increasingly complex global economic and financial environment, the pressure on the asset quality of China's banking industry has increased, and financial fraud cases of listed companies have occurred from time to time. Profit margins were maintained, but profitability declined compared to the previous year. In 2022, in the important period of China's economic transition from high-speed growth to high-quality development, facing the impact of the new crown pneumonia epidemic and the complex and severe global economic and financial situation, to ensure the optimal allocation of resources, it is necessary to give full play to the key role of finance in resource allocation. . As the core component of financial institutions, commercial banks play a crucial role in allocating scarce resources and serving the real economy. An important indicator for evaluating bank operating capabilities is the profitability of commercial banks. However, in recent years, Chinese commercial banks have bid farewell to the era of ultra-high growth, and their profit growth has declined significantly. According to the People's Bank of China's "Financial Industry Stability Assessment (2021) Report", as of the end of 2019, the return on assets of China's banking financial institutions was 0.86%, a year-on-year decrease of 0.02 percentage points, and the capital return rate was 10.39%, a year-on-year decrease of 0.70 percentage points. The overall capacity continued to decline from the previous year. As of the end of 2020, the return on assets of China's banking financial institutions was 0.75%, a year-on-year decrease of 0.11 percentage points, and the capital return rate was 8.94%, a year-on-year decrease of 1.45 percentage points. The overall profitability was lower than the previous year.



Data source: People's Bank of China "Financial Sector Soundness Assessment (2021) Report"

In May 2017, the People's Bank of China established the FinTech Committee to strengthen the research planning and overall coordination of financial technology work, big data, blockchain, cloud computing and other new-generation information technologies are set as the key research directions of financial technology, and the development tone of the above-mentioned technologies has been established from the policy level. In August 2019, the People's Bank of

China officially released the Financial Technology (FinTech) Development Plan (2019-2021), which clearly put forward the development goals, key tasks and safeguard measures of financial technology in the next three years, and identified six key tasks in the next three years. In 2020, the China Securities Association and the China Banking and Insurance Regulatory Commission will also provide guidance on the development of financial technology in the banking, insurance, and securities industries to promote the application of technology to all scenarios in the financial field. In 2021, the digital economy has become a new economic form and is developing rapidly. Along with economic development, a new generation of information technology has become the key core technology and driving force leading a new round of scientific and technological revolution. With the rapid development of technologies such as big data, cloud computing, blockchain and artificial intelligence in the financial industry, financial technology ("FinTech") has spread all over the world.

In the context of the digital development of banks, due to the pressure on profitability, the retail business has become a "new engine" for bank profit growth due to changes in stable asset returns, controllable risk systems, and increased customer volume. In 2020, the proportion of retail business in Bank of China has reached 31.4%. Among them, listed banks performed most prominently, with retail business revenue accounting for 42.3%, surpassing corporate business for the first time. The pre-tax profit of retail business accounted for 45.61% of the overall pre-tax profit, and the growth rate exceeded the revenue growth rate by 2 times. The main user groups of bank retail business span the age group of 20-70 years old, and different groups of people have different choices for the use of assets and risks. Due to the great differences in social growth, risk preference, asset preference, and educational background, it has caused its obvious stratification phenomenon. Among them, high-quality customers have basically been tapped, and it is difficult to develop "long-tail customers". Retail needs to meet the different needs of various customers and has higher requirements for marketing models. It is difficult for extensive marketing models to meet the needs. Therefore, it is the core of the research to expand the "long-tail customers" while maintaining the stability of the existing customers. Continuously increasing the competitiveness is the core of the research. It is not easy to maintain the stability of the existing customers. In the analysis of influencing factors under the background of datafication, the main core problem is the contradiction between supply and demand, and the digital-driven acquisition, processing and feedback mechanism of users' needs to form a product production system cannot well support users' needs. The big difference also directly affects the user's loyalty.

PROBLEM STATEMENT

This study is about the match between user needs and bank technology investment. Previously, many scholars and experts studied how to judge user loyalty, or improve user satisfaction, and external factors that affect loyalty, etc. For example, Ahmad Kamal Al Hawamdeh (2022) studies the impact of social responsibility on customer loyalty of Jordanian commercial banks. He Benyuan (2010) studied the influence of quality on loyalty. Therefore, this study combines the service characteristics of banks and how bank users find the influencing factors in the current competitive environment of financial technology. Baldinger & Rubinson (1996) divide customer loyalty into two aspects according to customer brand loyalty, which can be divided into behavioral loyalty and Emotional loyalty is mainly about brand cognition, association, personality, etc. The core needs to find out the influence of brand, experience, social influence and income.

In the early stage of the research, through interviews with the heads of the science and technology department of some banks, the head of the science and technology department of the city commercial bank mentioned the problem of weak user loyalty during the interview process. (2022-2025)", the China Banking and Insurance Regulatory Commission issued the "Guiding Opinions on the Digital Transformation of the Banking and Insurance Industry", and the regulatory documents were released, which pointed out the development direction and implementation path, and pointed out the direction of banks' financial technology investment. Whether the investment can achieve the growth of customers, Ba Shusong (2017) studied the influencing factors of electronic banking customer stickiness. Customer stickiness has an indirect negative impact. Scholars' researches only points out the influence of a product or a type of application. It is necessary to find out what are the core factors of overall technology investment on customer loyalty. Whether there is a problem with the compliance of the product, or the effectiveness of the service needs to be comprehensively considered on the basic dimensions of conventional adaptability, efficiency, comprehensiveness, and intelligence, and other dimensions such as extended feedback capability and advanced nature are superimposed.

Users are the main users of banks. In the middle of the research, by visiting banks with large investment scale and stable customer volume, their pain point is to meet users' technological expectations, provide personalized services in continuous update and iteration, and invest in high-cost operation and maintenance. In this mode, the needs of users will also change, so it is necessary to provide different products and services in the case of different classification characteristics of users. Zhang Qian (2018) In the research on customer satisfaction of retail banks based on The two dimensions of income and age are subdivided, and the user's satisfaction difference is judged by the user's usage. The conclusion is that in addition to providing personalized products and services, it is necessary to consider the user's income and the user's responsiveness. Therefore, Need to find out what are the key cores that affect user satisfaction and loyalty? Combined with the user's income, age, gender and other characteristics, it is also necessary to analyze the user's business usage, such as the number of banks used by the user, the amount of usage, and the number of times.

Combining the above problems, through comparative analysis, this research will use Shi Meng's loyalty analysis method, combined with the empirical research on the influencing factors of e-banking customer stickiness and the retail banking customer satisfaction research based on the characteristics of channel usage, and consider each influencing factor. The impact of bank user loyalty.

RESEARCH OBJECTIVES

A bank is one of the representatives of a specific financial industry and provides financial services in the society. Due to the particularity of bank services, there are many financial institutions in a country, and the services are similar. At the same time, there is no need to affect user needs. In a specific indicator, according to the 2020 China E-Banking Survey and Analysis Report, it is pointed out that the online migration of users is obvious, and the number of users and services are more targeted, and more emphasis is placed on intelligence, entertainment, socialization, and personalization. Therefore, the changing needs of banks' users are diverse, and this research needs a more comprehensive understanding of the differences of banks and the correlation of user needs. In conclusion, the purpose of this study is to find out how banks can improve user loyalty through effective technology investment under the pressure of digitalization.

More specifically, the objective of this study is to:

1. Build bank user demand management capabilities by understanding customer expectations.
2. Improve customer perception and service patterns through the factors associated with expectations and loyalty.
3. Through the continuous analysis of users during the service process, a personalized, timely and effective channel is formed to enhance user satisfaction.

RESEARCH HYPOTHESIS

This paper proposes five hypotheses.

Hypothesis 1-1 (H1-1): Expectation confirmation has a positive effect on user loyalty.

Hypothesis 1-2 (H1-2): Service effectiveness has a positive effect on user expectations.

Hypothesis 1-3 (H1-3): Product conformity has a positive effect on users' expected usefulness.

Hypothesis 1-4 (H1-4): Voluntary has a positive effect on user expectations and loyalty.

Hypothesis 1-5 (H1-5): Persistence has a positive effect on user expectations and loyalty.

RESEARCH FRAMEWORK

Loyalty Theory

There are many concepts of customer loyalty, but they are not completely unified. For example, Tucker (1993) defines customer loyalty as three consecutive purchases, Oliver (1999) defines loyalty as the continuous purchase of preferred products and services in the future, and Gremler & Brown (1996) define it. Loyalty is the tendency to repeat purchases and choose the current supplier as the only source of supply. Dick & Basu (1994) pointed out that true customer loyalty occurs when repeat purchases and high attitude orientations exist, and Philip Kotler (2014) pointed out that customer satisfaction refers to the comparison of a person's perceived effect of a product with his expectations. From the above analysis, it is pointed out that there are three types of matching degree between the perception of the expected level and the service given: beforehand, during the event, after the event, and the user's performance obtained in the event or after the event. The state obtained in advance is negative, and the user reaches a positive state when the user feels satisfied and sustained in the state obtained in advance. Therefore, based on loyalty theory, expectation, perception, experience, satisfaction and continuous purchase intention are proposed, in which expectation is the variable of consumption behavior.

The Theory of Consumer Value

Based on the cognitive logic of information processing, Woodruff (1997) proposed a customer value hierarchy model by using the "means-purpose link model" in consumer behavior, also known as the (ladder model), in which the customer's goal is the expectation in the use situation. As a result, desired product attributes and attribute efficacy increase the desired outcome, where by satisfying attribute-based satisfaction to result-based satisfaction, goal-based satisfaction is formed, which is customer satisfaction with all values. Gale (1994) advocates customer value

management. Customer value is defined by quality and cost. In addition, market-perceived quality is the evaluation obtained by customers by comparing the products or services of the company. Experiences get feelings, so the expected influencing factors are composed of brand, experience, social influence and revenue;

Technology Acceptance Theory

Technology acceptance theory was proposed by Davis (1986) to explain and predict the acceptance of information systems, in which social expectations, effort expectations, and performance expectations are expected, and there is a positive correlation between gender, age, experience, and self-initiated use. At the same time, the factors contained in the willingness to use also include social influence and convenience conditions, and ultimately the habitual influence of the willingness to drive user behavior, and the factors that enhance the self-initiated factor based on the bank's user characteristics strengthen the change of user loyalty.

Combining loyalty theory, consumer value theory, technology acceptance model and related research, this paper puts forward the expectations, voluntariness, and continuity that affect loyalty. The products that affect expectations are product conformity and service effectiveness. Experts investigated and communicated, put forward the impact indicators of these factors according to the characteristics of the bank, and finally established the theoretical model of this research.

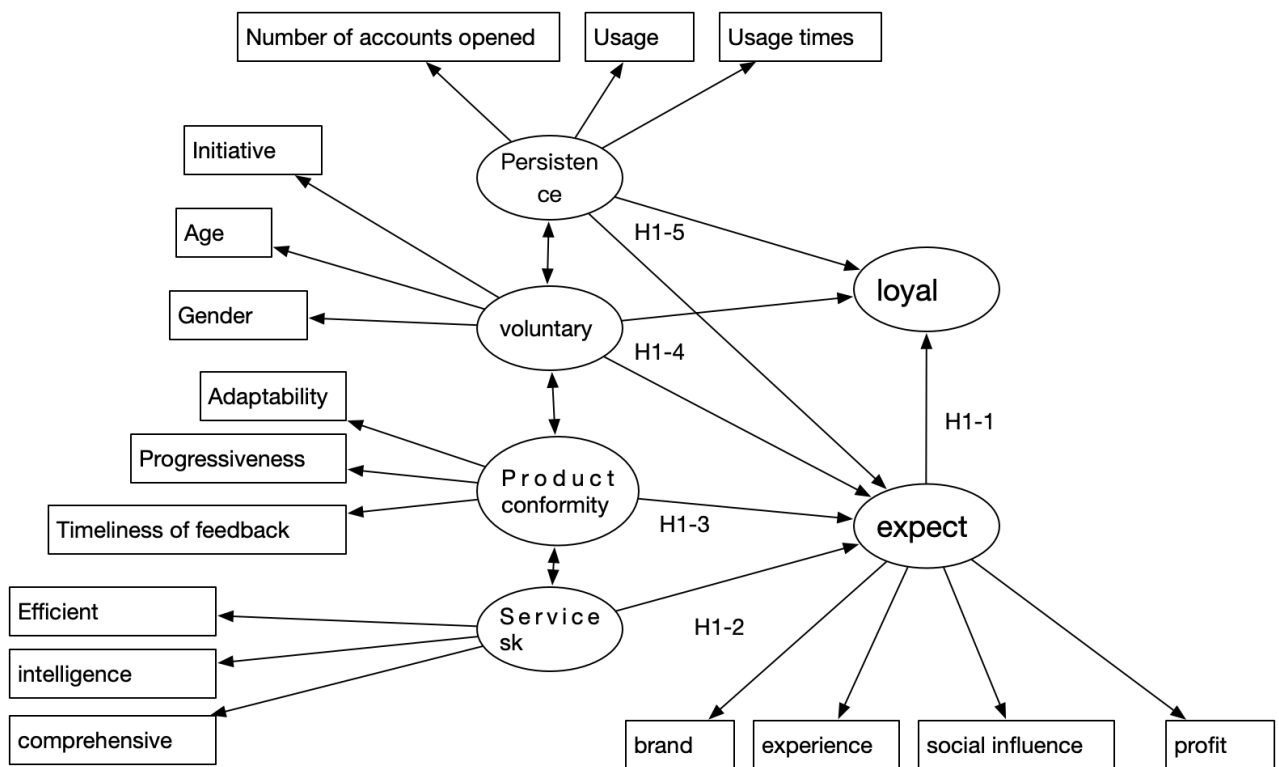


Figure 1: Theoretical Model

RESEARCH QUESTIONS

The problem studied in this paper is to confirm that under the background of data transformation, when a large amount of investment in technology construction and the decline of key core revenue (credit income to enterprises), banks turn to individual users, then individual users are retaining existing users. In terms of acquiring users, we need to focus on creating products and

services. Because the products that require scenario-based acquisition of users are not targeted or can only be oriented to specific users, this paper is based on the theoretical model and establishes a set of theoretical models through the expansion of the theoretical model. The indicator system, the final driving model for analysis, and the output of a running conclusion, support the bank to establish user demand management capabilities, and provide these users with personalized products to meet customer expectations and increase user loyalty, which is divided into the following three. Steps to analyze the problem:

How to understand user needs and expectations

Traditional banks have built a standard business model after the completion of the new generation of core systems. The application architecture of the service-centered banking system is designed with a comprehensive logic and centralized design goal. The layered design idea divides the application structure into six layers: "channel layer", "integration layer", "customer layer", "product/transaction layer", "accounting layer", "management reporting and decision support layer". The role of the channel layer is to provide the operation interface and interactive control for the core bank's business handlers (customers, front-end marketing and customer service personnel, and back-end business centralized handlers), process the operation events initiated by these users, and collect the information they input. , call the relevant backend service to process their request, and show them the processing result. The role of the customer layer is to integrate the customer resources required by the core banking system, provide a unified customer information view and operational customer relationship management, and complete customer identification, development and maintenance on the basis of establishing a unified customer view. To support the business strategy of building a marketing support and service system based on customer types (individuals, companies) as the main line. The role of the product layer is to provide strong product support functions for the entire core banking system, ensuring that banks can quickly build new products, flexibly respond to changes in exchange rates, interest rates and pricing, and combine existing products based on this On this basis, we will expand various extensions and emerging businesses. The core problem of this business model is that the product-centric business model cannot understand the needs of users. Only by allowing users to make choices, banks cannot optimize products and services due to changes in users.

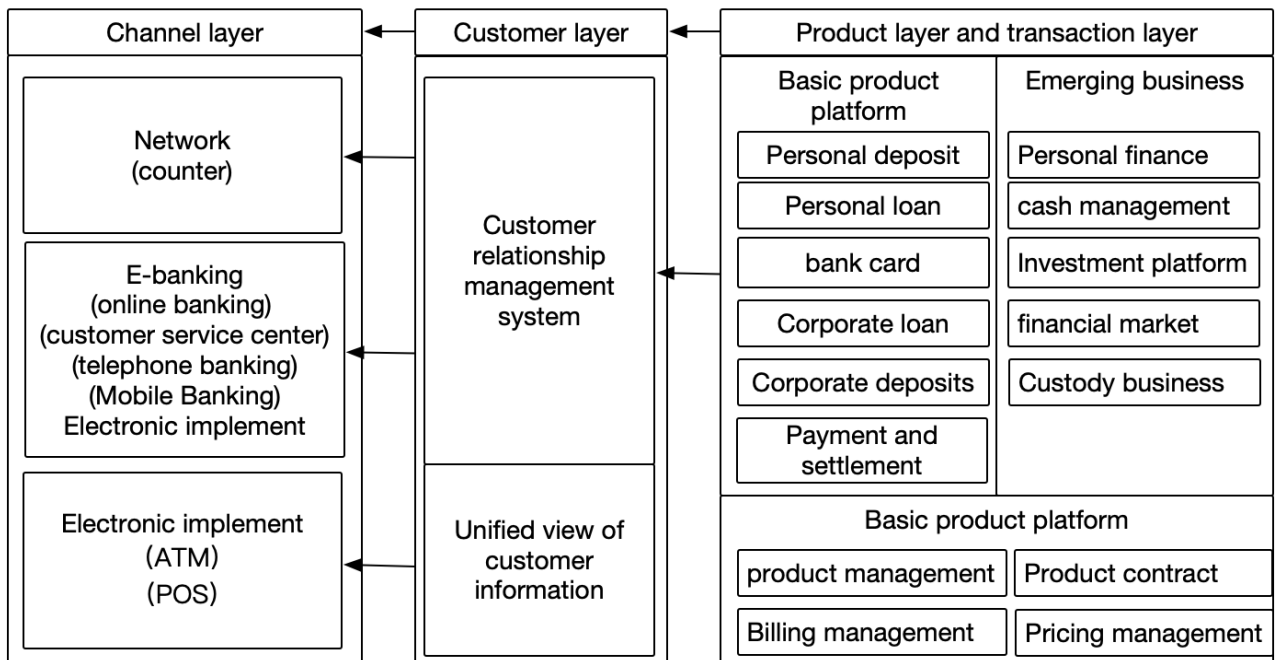


Figure 2: Traditional business model

With the development of the Internet and the development of the mobile Internet, more businesses have begun to transform, and the traditional business model has also undergone great changes. (Data: 2020 China E-Banking Survey Report) In 2020, mobile banking has become a retail e-banking The key core of development, the proportion of users increased by 12% year-on-year. From September 2019 to August 2020, the mobile banking APP stand-alone monthly average was 26.3 minutes, an increase of 18.4%; the growth rate was basically the same as last year; while online banking stand-alone The average monthly effective usage time is 31 minutes, down 5% from last year, and the development has now entered a bottleneck period; because of the mobile Internet development model, the bank's business equipment has also undergone a great migration. The usage frequency of mobile banking and WeChat banking is relatively high and close, with more than 50% of users using it more than twice a week. The research of He Qiao (2013) pointed out that under the reform of Internet financial model and the innovation of banking business, the key channel layer is electronic banking, and the customer layer disappears, and the business collaboration layer is replaced, providing various front-end services, and using business back-end management services. It can directly connect to the enterprise platform, and the back-end product layer provides more powerful capabilities to form an independent competence center. However, in the process of implementation, new problems have arisen with the opening of the front end. There are many applications and functions of the terminal. The user's choice of the bank has become the choice of the terminal, and the services in the terminal also need to be selected. Make understanding users more complex.

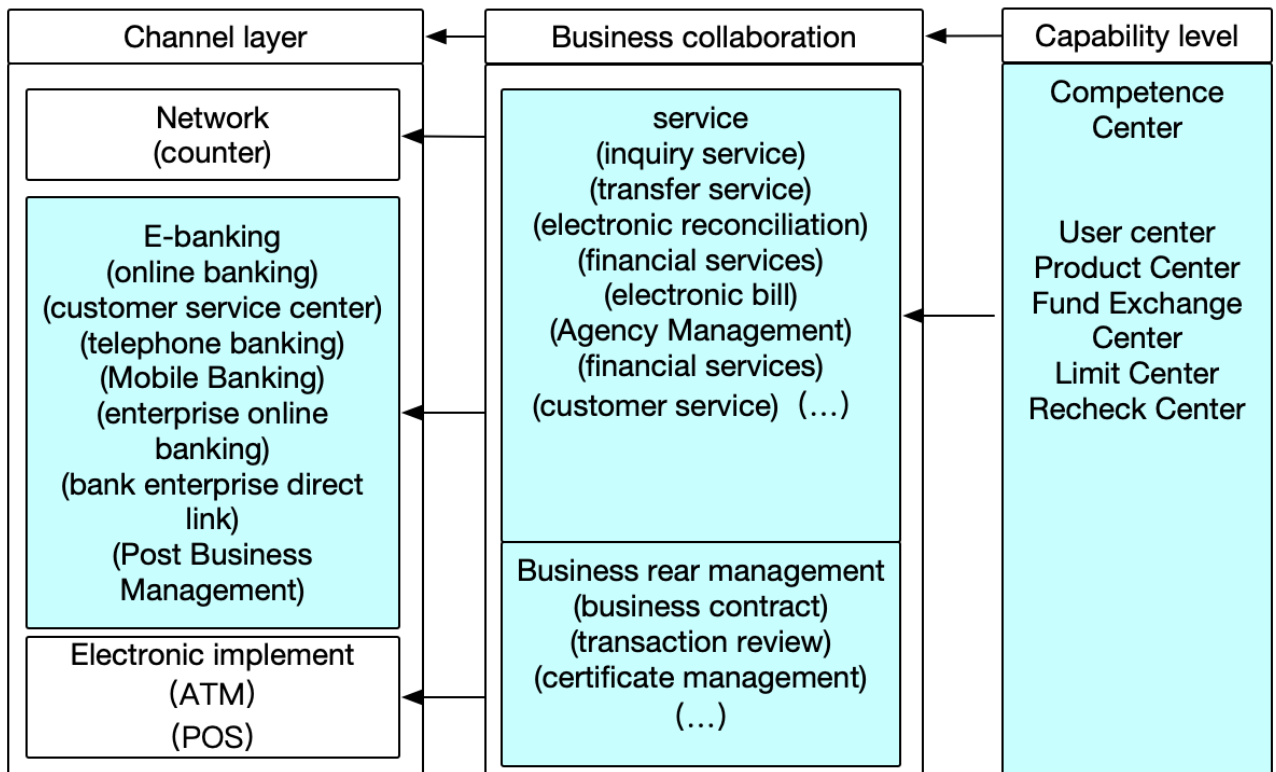


Figure 3: Business Model of Mobile Internet

In the context of digital transformation, Yang Tao (2019) analyzed the focus and path of digital transformation of commercial banks, and proposed an overall solution to make full use of new-generation technologies and systems. Big data, artificial intelligence, interconnected technologies (mobile internet, Internet of Things), distributed technologies (cloud computing, blockchain), and security technologies (biometrics, encryption, quantum technologies) are all profoundly changing the financial industry. The digital transformation of banks means that they need to better grasp these emerging technologies and fully optimize the market facilities that support their businesses. Technology constitutes the core competitiveness of banks. Facing the ever-changing business and market, it requires faster response capabilities, safer guarantee capabilities and more stable support capabilities. Comprehensively promote customer-centric scenario innovation. Self-empowerment for business scenarios. First, through digital tools and models, the family financial service chain and the credit chain of industrial finance can be comprehensively expanded. The second is to explore, cultivate and satisfy the potential financial needs of fragmented customers in advance. The third is to actively expand the demand for the government to make it more convenient, intelligent and public. Realize ubiquitous "interaction" for all kinds of customers. By continuously collecting user behaviors, dynamically understanding user needs and intentions, identifying user expectations, and finally providing personalized scene needs, promoting the construction of capability centers, and users can obtain desired products and services.

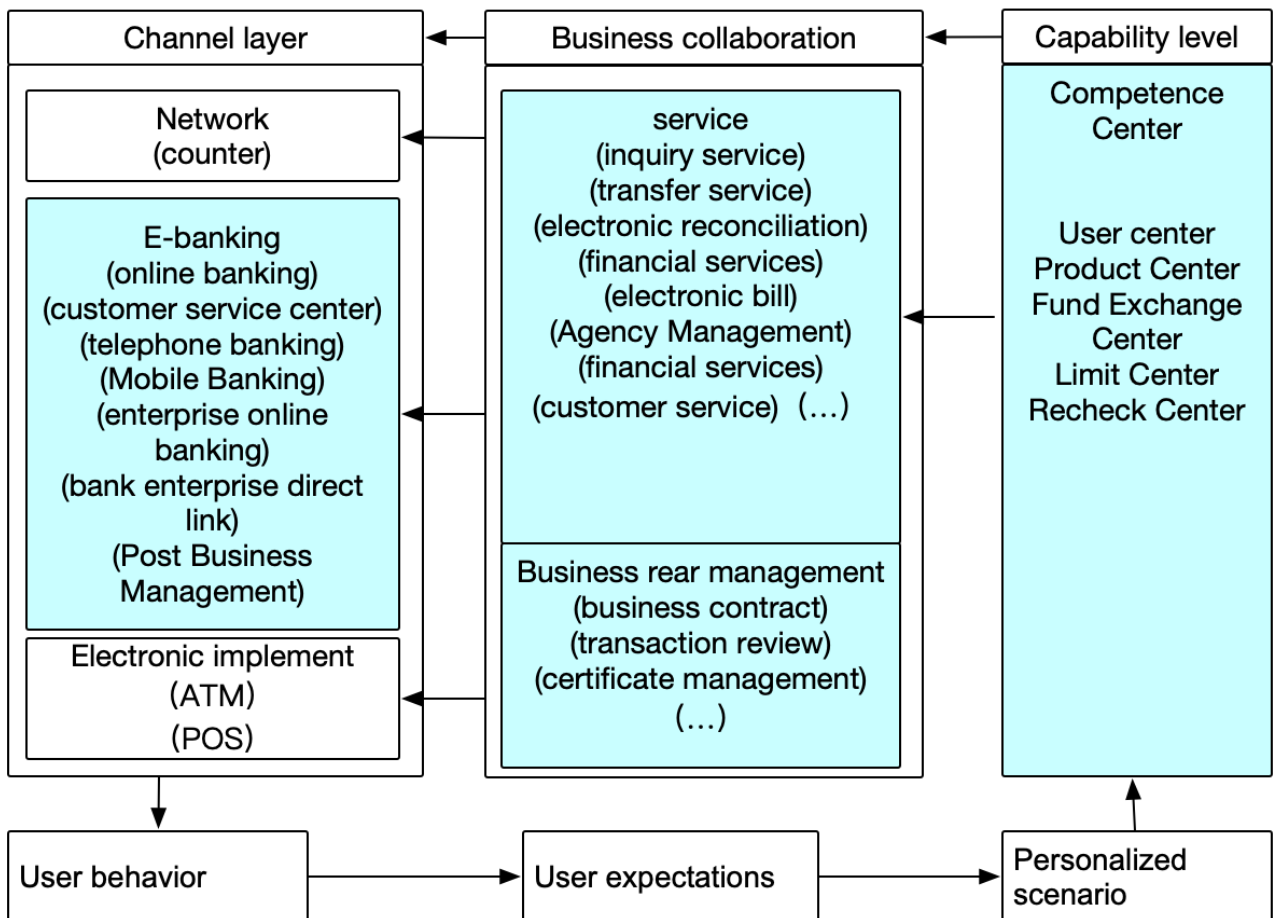


Figure 4: Business models for digital transformation

How to build a perception system, obtain demand in real time and provide products and services that meet expectations

Philip Kotler pointed out the importance of demand management, and George Palmatier and Colleen Crum identified the components of effective demand management as planning requirements, communicating needs, influencing needs and prioritizing needs, then in the traditional banking standard business model, demand awareness The system is mainly for scientific and technical personnel to obtain the user's needs through manual methods. In the process of demand collection and use, the demand management mode of computer software engineering is used. It takes a very long period from demand collection to user experience. Therefore, the core problem is that users cannot perceive the value brought by changes in products and services. Jin Xin (2015) pointed out that the process of decision-making information transmission is to obtain information from the corresponding information service source, then provide it to decision-makers, and then conduct decision-making analysis to transform to form a corresponding relationship.

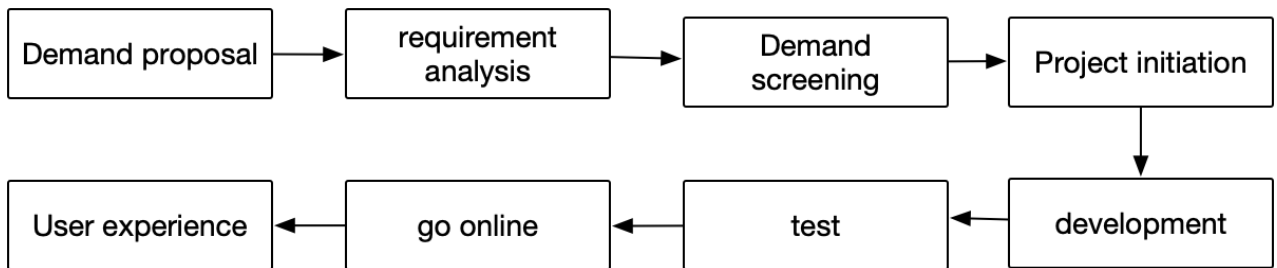


Figure 5: Manual demand collection mode

In the past few years, there have been many reviews related to recommender systems. For example, Burke et al. (2007) reviewed hybrid recommender systems, reviewed collaborative filtering techniques, reviewed mobile news recommendation technologies, reviewed deep learning-based recommender systems, etc. The user's needs are obtained to form personalized needs, and the personalized needs form a personalized display effect according to the decision-making system. However, in terms of the proportion of demand, the part of personalized definition still only accounts for a certain proportion, which solves a part of the problem in terms of the degree of conformity to the demand expected by users but cannot be completely solved.

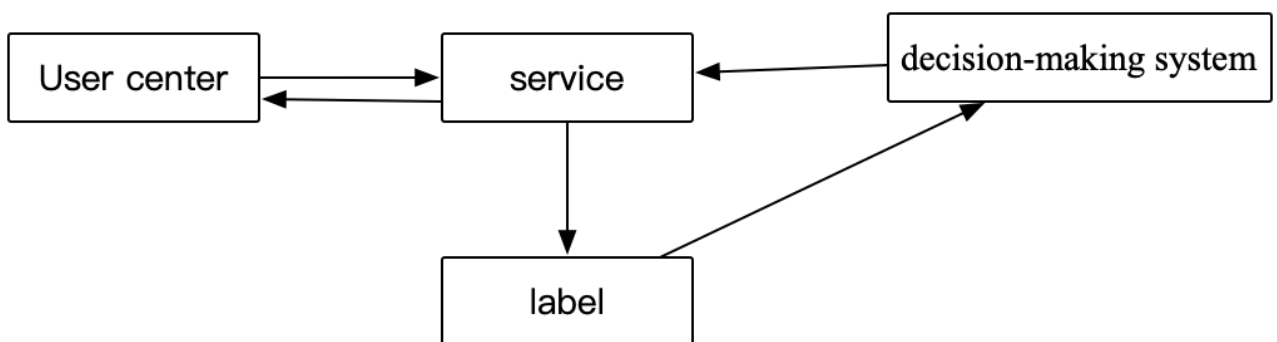


Figure 6: Personalized demand decision-making model

In the context of digitalization, Zhang Weiyu (2020) proposed in his thoughts on accelerating the construction of open banking by commercial banks that banking products will no longer be limited to a single and standardized field, but can be personalized, differentiated and customized based on customer needs. Open Banking brings infinite possibilities for business model innovation. Open Banking enables banks to integrate into thousands of industries. It not only connects G-end, B-end, and C-end, but also loads richer services and creates diversified business models. It can also realize the "Lego"-style superposition and integration of business models, creating a new financial services and expand business space.

How to provide personalized services in a timely and effective manner through user analysis to enhance expectations

In the traditional business model, the bank does not have the possibility of real-time analysis of user data, and there is no definition of personalized service. Therefore, under the new model of the Internet and mobile Internet, there is a new service model of personalized application. Yang Yang (2020) proposed in Big Data Marketing: Overview and Prospect that data is an indispensable key element in the underlying logic of artificial intelligence marketing. In the digital

age, user search, browsing, click, purchase, comment, sharing and other behavioral data and product attribute data are continuously generated in real time in various forms such as numbers, texts, voices, pictures, videos, etc. Marketing big data with speed and diversity characteristics. Wang Jiawei and Chen Hong (2020) proposed in their research that the judgments and predictions made by artificial intelligence need to rely on the analysis and learning of these massive marketing data. Therefore, in the era of mobile Internet, banks are limited in terms of data, and only collect user behavior data combined with business data, and the services provided will be very limited.

In the context of digital transformation, Zhang Weiyu (2020) proposed that commercial banks need to integrate into thousands of industries in his thinking on accelerating the construction of open banking, not only to solve internal data problems, but also to open up data at all ends. In their research, Kietzmann (2018) and Paschen (2019) proposed that when companies provide marketing services to users, on the one hand, marketing service personnel need to receive users and solve users' problems in a timely manner, and on the other hand, they need to effectively provide users with the products and services they need information. However, it is sometimes difficult for marketing service personnel to ensure the timeliness of reception and handling of problems, resulting in poor user interaction experience. Important measures to improve service efficiency and user experience include intelligent customer service and intelligent delivery and recommendation. West (2018) investigated the robot concierge in the study to assist hotel staff, provide customers with information in a timely manner, meet the general needs of guests, greatly enhance customer expectations, and achieve greater success.

CONCLUSIONS

The significance of this research is divided into theoretical significance and practical significance, as follows:

Theoretical significance

The theoretical significance of this study stems from trying to answer a series of questions. In the current competition among banks, its own users are in a cross state with other banks, so why do these users churn? What are the reasons for user churn? How did it come about, which is due to the lack of independent products and services? Or is the user's expectations not being met due to a lack of understanding of the user? The significance of this study has three aspects. First, this study will analyze the model structure from the UTAUT model. Second, the collected data samples will be analyzed in combination with the PLS-SEM model to obtain the relationship and coefficient of each index, and the core content of the study can be obtained. Finally, By introducing the user's loyalty theory, the model of user churn is formed. The above research has not been analyzed by researchers, and it has certain innovative significance.

Realistic meaning

First of all, what are the core concerns of banks in terms of user management? Secondly, in the process of continuous technological investment, it may not fully meet the expectations of users. It is necessary to adjust and plan as soon as possible, and find out what is the core of future construction? Finally, it helps individual banks to establish a complete system of supplying products and guaranteeing user needs. Through the continuous evolution of the model, a set of analysis methods that can be used by the banking industry is formed and implemented.

ACKNOWLEDGEMENTS

I have sincerely thanks to my main supervisor Assoc. Dr. Fatihah Binti Mohd for valuable advice, support and constructive guidance throughout the thesis, and great thanks to my Co-Supervisors, Dr. Nurul Ashykin Binti Abd Aziz, who helped design the project, came up with clever ideas, read manuscripts, and was a great support and good friend along the road. Also, special thanks are dedicated to my family and friends for all help and support to my path of developing this thesis work.

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Talking about how to strengthen the Human Resource Management of Medium and Small Logistics Enterprises

Sun Guangjie¹
Mohd Nazri Bin Zakaria²

¹Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: a21e064f@siswa.umk.edu.my

ABSTRACT

With the advent of economic globalization and informatization, human resource management plays an increasingly important role in enterprise management. After nearly 30 years of preparation and start-up, China's modern logistics industry has also developed rapidly. It is precisely because of the emerging nature and particularity of the industry that small and medium-sized logistics enterprises generally have the phenomenon of unreasonable human resource structure, low overall quality and serious brain drain. How to scientifically develop and manage human resources has become the first issue for small and medium-sized logistics enterprises to consider.

Keywords: Small and Medium-Sized Logistics Enterprises; Human Resource Management; Business Management; Human Resources.

INTRODUCTION

The logistics industry is a very potential industry, known as the "third profit source". At the same time, the logistics industry is also an export-oriented and value-added service industry that is knowledge-intensive, technology-intensive, capital-intensive and labor-intensive. The business flow, information flow and capital flow in the logistics industry always run through each link, so the requirements for personnel are relatively high.

Analysis of the current situation of human resources in small and medium-sized logistics enterprises concept: Characteristics of the personnel of the enterprise

Complexity of People

As far as most small and medium-sized logistics enterprises in China are concerned, the composition of their personnel is very complex: there are a small number of expert managers and technical personnel; there are also some college and undergraduate graduates with a high level of knowledge but lack of practical work experience. ; More are skilled workers with low education but rich practical experience. As far as the company is concerned, the company has a total of 469 employees, including 4 with senior professional titles or above, 26 with intermediate professional titles or above, 290 technicians, and 149 other employees. The distribution ratio is shown in Figure 1. These people from different sources and at different levels have their own characteristics and value goals. Therefore, the enterprise human resource system composed of them has considerable complexity.

Mobility and dispersion of people

Judging from the actual situation of our company's operation, as an emerging industry in China,

logistics enterprises are different from ordinary production enterprises. One of the notable features of them is that they are very mobile. Usually, an enterprise only has a fixed base with necessary management functions and production maintenance. The organization of most other projects changes with the changes of logistics projects. For example, in 2009, our company carried out as many as 13 warehousing projects. , Over 120 large-scale transportation projects, these projects are based on the specific conditions of the project, such as the size of the project, the characteristics of technical requirements, regional conditions, etc. to form an adaptive project management agency. With the end of the engineering project and the beginning of the next project, the personnel composition has to be adjusted again. Therefore, the personnel of logistics enterprises have strong mobility and dispersion, which also makes it relatively difficult to collect human resources evaluation information. Efficient management of human resources brings great difficulties.

Company composition table

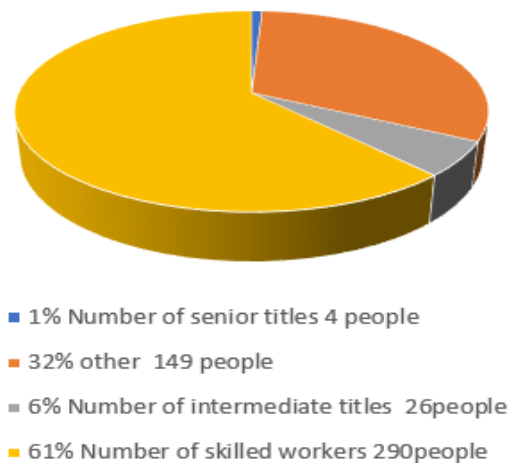


Figure 1: Company Composition

Current status of internal human resource management

Lack of professional human resource management talents

Although enterprises are increasingly aware of the importance of talents to the development of enterprises, especially the logistics industry is also paying more and more attention to the professionalism of logistics talents, but they often only focus on how to introduce talents. Just attract the people you need

So, it ignores how to retain talents and how to manage and develop human resources. Most of today's small and medium-sized logistics enterprises are the predecessors of state-owned enterprises' automobile fleets or transportation branches or directly operated individuals. They have grown into today's logistics companies through their own continuous efforts. Because of this, although the personnel departments of some logistics enterprises transformed from state-owned enterprises have changed the brand of "Personnel Department" to "Human Resources Department", they still remain at the level of traditional personnel management. A lot of personnel management work is still in the process of sorting files, year-end evaluation and other procedural and formulaic work, lacking professional human resource management knowledge, and most people have not undergone special human resource management learning; The human resource managers of small and medium-sized logistics companies have several roles, not to mention the professional management level. Therefore, such a human resource management team must be difficult to adapt to the requirements of modern human resource management.

Insufficient development and training of human resources

Because logistics enterprises are subject to industry monopoly, management fragmentation, etc., as well as the limitations of their own development, generally speaking, small and medium-sized logistics enterprises have a fairly frequent flow of personnel in their organizations. Therefore, although some companies clearly know the importance of employee training, they are reluctant to pay enough attention to the idea of "making wedding clothes for others" due to the flow of talents; Talent training planning, so the training is random, it is difficult for employees to obtain a complete knowledge structure and work skills, and achieve ideal training and development results; Furthermore, as mentioned above, the mobility and dispersion of enterprise personnel also cause personnel The high cost of training makes some enterprises reluctant to take human resources training as a key investment and investment object, and they do not realize that human resources are an important strategic resource. The investment in human capital will activate other capital and create benefits for the enterprise. . Some companies even believe that acquiring work-related knowledge and skills is a matter for employees. Not only are they unwilling to invest in employee training, but they are also unwilling to provide convenience and support in terms of time when employees pay for training themselves.

Lack of scientific incentive mechanism

Due to historical reasons, the distribution mechanisms of logistics enterprises are mostly of two types: one is the small and medium-sized logistics enterprises formed by the restructuring of state-owned enterprises, which basically implement the distribution system under the organizational management system set up according to the division of labor. There is a unified incentive and restraint system, but it lacks flexibility; the other type is completely determined by the market salary to decide whether the practitioners will stay or not. In this way, the consequences of the former are that the enthusiasm and creativity of the managers and employees of the enterprise cannot be properly motivated and cannot be brought into full play; the latter completely ignores the diversity of employee needs, such as respect, Security, self-actualization needs, reputation, status, etc. According to Maslow's hierarchy of needs theory, people's needs are multi-faceted and multi-level, and income is only one aspect of people's needs. In today's highly developed market economy, monotonous incentives have been unable to meet people's needs, which is manifested as the continuous loss of corporate talents.

Take effective measures to improve the human resource management level of small and medium-sized logistics enterprises

Advocating the concept of "people-oriented" human resource management

The so-called "people-oriented" human resource management refers to the guiding ideology of "people-oriented". Through various forms and means, the organization mainly stimulates the potential of members in the organization, supplemented by influencing members outside the organization, and coordinates the process of realizing the goals of the organization and the goals of the members. As a modern logistics enterprise, human resource management should emphasize "people-oriented", which should not only cover the content of traditional personnel management, but also be more abundant, profound and comprehensive in theory and operation. In the daily management work, we must adhere to an important concept: the human resources department is a service department that helps employees' self-development. Only in this way, enterprises can obtain and retain talents in the fierce competition for talents, so that human resource management can enter a more stable and good situation. With the continuous development of my country's logistics industry, small and medium-sized logistics enterprises will face unprecedented competition and pressure. Therefore, it is particularly important to use people-oriented management concepts to build a new model of enterprise human resource

management.

Strengthen human resources training, use modern information technology, and establish a scientific and systematic human resources management system

In order to better formulate and implement the human resource management system, enterprises should also strengthen the training of professional human resource management teams. They can provide special training to existing personnel management personnel, or introduce some experienced human resource management professionals. Only by establishing a scientific human resource management system can we achieve the goal of attracting talents needed by enterprises and fully tapping the potential of existing talents.

The use of information technology has a more profound and pervasive impact on human resource development and management. As a modern logistics enterprise, it should make full use of the computer management information system to comprehensively and comprehensively collect and sort out the composition and distribution of human resources in the enterprise, classify the human resources of the enterprise, and identify those to be developed, cultivated and urgently needed. Introduce talents, and formulate an evaluation standard system for enterprise human resources, pay attention to timely collection of evaluation information of personnel scattered in various engineering project departments, and establish a smooth enterprise human resources management information network, so that the human resources management system is selected by the enterprise. , cultivating and using talents to provide the basis.

Formulate human resource development plans, grasp the recruitment and training of talents, and strive to advocate a learning organization

In order to achieve the business development indicators of the enterprise in a certain period and make the enterprise develop rapidly, how many talents are needed, what kind of talents are needed, whether it is to be solved by self-cultivation or through external introduction, etc., all need to go through careful investigation and thinking, formulate Complete human resource development planning. In today's era, with the rapid development of science and technology, the competition of logistics enterprises is becoming more and more fierce, and the transfer of human resources is also accelerated. Therefore, logistics enterprises should not only formulate medium and long-term (5-10 years) human resources development plans, but also formulate short-term (5 years). (within) the development plan to realize the organic combination of short-term planning and medium and long-term planning.

Second, we must pay attention to the selection and allocation of human resources. In recent years, my country's logistics industry has developed rapidly, and the number of logistics enterprises has increased rapidly. At present, there are 10 million logistics enterprises in the country, including 250,000 in Shanghai alone, and the gap of logistics talents has further expanded. At present, although some secondary schools and colleges have set up logistics majors, most of the talents they cultivate are engaged in operational work, and it is almost impossible to find a master's or doctoral degree in management. Only a few have also become the targets of major headhunting companies. High-quality management talents are the cornerstone of enterprise development. In the past two years, our company has participated in more than ten themed job fairs organized by the provincial and municipal personnel and labor departments, and recruited more than 50 high-quality personnel with a bachelor's degree or above. Talents joining; in order to stabilize the undergraduates and above, special policies are formulated in terms of treatment, so that high-quality and highly educated professional and technical personnel can work with peace of mind, and make follow-up talent reserves for the development of the enterprise.

Finally, for the existing human resources of the enterprise, it is necessary to pay more attention to the career design of employees while increasing the intensity of education and training. Due to institutional and other historical reasons, most small and medium-sized logistics enterprises emphasize the obedience of employees to the organization, but ignore the guidance of employees. Therefore, it is necessary to advocate the "people-oriented" management concept, strengthen the two-way communication between managers and employees, and regard doing a good job of "people" as the foundation of human resource management. At the same time, strengthen staff training and carry out career design for staff. In the era of knowledge economy, more logistics talents who keep pace with the times are needed. Therefore, it is necessary to strengthen employee training, to promote the transformation of enterprises into learning organizations, and to achieve a win-win situation for enterprises and employees.

Establish an efficient and multi-faceted talent incentive mechanism

Incentive is the core of enterprise human resource management and an important means to attract and retain talents. Human resource management must adopt multi-faceted incentive means to realize the multi-dimensional development of the incentive system.

With the development of society, people's standards for self-realization have also changed. Especially for the younger generation, it is difficult to meet their requirements only by means of traditional salary incentives. Therefore, according to the characteristics of the industry, the stage of the growth cycle of the company and the actual situation of the company's employees, our company's incentive mechanism generally adheres to classification incentives: that is, within the framework of basic incentive constraints, targeting different levels of incentive systems. Each has its own focus. The level of enterprise employees is roughly divided into three categories: middle and senior management personnel, general administrative personnel and ordinary employees. According to the different pursuits, values, and lifestyles of these three types of personnel, they can be roughly divided into three situations for incentives: First, for middle and senior managers: fully delegate power. Provide them with a stage to fully display their talents, establish good internal interpersonal relationships, supplemented by long-term rewards linked to their performance, based on generous salaries and benefits, and focus on spiritual motivation; the second is for general administrative staff. : To respect, listen to their opinions and generous benefits, pay equal attention to both spiritual and material incentives; the third is to ordinary employees: pay attention to salaries and rewards, and focus on material incentives. In addition, the company should focus on how to reflect the employee's own value in the way of human resource management incentives, and establish an incentive mechanism to improve employees' sense of achievement and goal realization. Let employees participate more in corporate management, so that employees have a sense of ownership and responsibility, so as to motivate employees to play their own initiative.

With the gradual integration of the domestic logistics industry with international standards, this year we are also preparing to learn from advanced foreign incentive models and formulate a long-term incentive mechanism. For example, many developed countries are currently carrying out the reform of "setting up long-term welfare plans for employees".

In addition to the pension, medical insurance, work-related injury insurance, and housing provident fund stipulated by the government, these enterprises also handle various commercial insurances for their employees. The close integration of development is worthy of our reference. Establishing a scientific and reasonable incentive mechanism is the key to attracting and stabilizing outstanding talents to win the competitive advantage of enterprises. With the development of society, enterprises need to analyze the current situation and solve problems in a timely manner according to changes in the internal and external environment, so as to continuously improve the incentive mechanism of the company to adapt to The development strategy and trend of the enterprise, so that the enterprise has a stable and sustainable competitiveness and development force.

CONCLUSION

As we all know, China's logistics industry has passed the initial stage and entered a period of rapid development. By 2020, it will be a golden period for the development of China's logistics industry. In addition, China's logistics industry has begun to enter a period of government promotion, enterprise operation, and industry self-discipline and coordinated development. China is one of the countries where the government has pushed logistics development the most. However, it is the enterprise rather than the government that determines the development level of China's logistics industry. Therefore, small and medium-sized logistics enterprises should not only improve their competitiveness in financial and material resources, but also strengthen human resource management, correctly understand the internal and external environment of human resource management, and deepen their understanding of the situation. Analyze the actual situation of human resources management of the enterprise, carry out a series of innovations on the current human resources system, and create a large number of high-tech employees. A long way to go. Although there are still many deficiencies in the management level of most small and medium-sized logistics enterprises in this aspect, I believe that by strengthening the understanding and formulating a scientific and reasonable human resource management system, we can make use of the late-mover advantages and realize efficient and modern human resources manage.

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Assessment of Talent Shortage with Government Intervention as Mediator in Malaysian Islamic Banking Institution

Siti Norjannah Mohd Jamil¹
Mohd Ikhwan Aziz²

¹Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: nurjannahmohdjamil@gmail.com

ABSTRACT

In Malaysia and even globally, Islamic banking has experienced tremendous expansion in recent years in terms of the law, infrastructure, personnel, and products. Islamic banking has sparked a great demand among all investors to move their investment portfolios into the Islamic banking market by providing a wide range of banking services that are acceptable regardless of a customer's religious affiliation. Since each of these institutions needs competent individuals to be occupied into their organisations, the beneficial development of IBIs has created a talent rivalry among the industry players. Ever since, the skill gap has been worse compared to earlier years, and despite an increase in Islamic banking education and knowledge service providers, the talent gap problem hasn't been fixed. The goal of this study is to discern between the talent shortage in Malaysia's Islamic banking institutions (IBIs) and the effects of government initiatives on public universities. The talent shortage model was created using a quantitative method, and theory will be utilised to explain the research gap. Following that, the framework of the prediction model will be proposed.

Keywords: Islamic Banking Institutions; Talent Shortage; Demand and Supply; Malaysia.

INTRODUCTION

Islamic banking has developed over the past few years into a remarkable and quickly increasing sector of the global banking and capital markets, and it has continued to flourish. The Islamic banking system aims to provide a wide range of banking services that are acceptable from a religious stance to both Muslim and non-Muslim customers, regardless of a customer's religious affiliation. Islamic adherents are devoted to abolishing all forms of interest, gambling, and uncertainty from the financial systems of the countries in which they live. Due to this, a lot of people are intrigued about Islamic banking and how it differs from traditional banking in terms of system, operation, product, development, and other areas.

As demonstrated by the collapse of a sizable conventional bank in 2021, this traditional banking system, which offers financial services to people, is not immune to economic instability. This is due to the fact that traditional financial systems, despite being well-established and established, are not immune to economic upheaval. The research claims that as a result, many investors have developed an interest in Islamic banking and have diversified their investment portfolios to include Islamic banking markets.

The introduction of the Islamic banking window by BNM in 1993 gave conventional banks the opportunity to offer Islamic banking services and products using their current branch networks and equipment. The principle behind the Islamic banking system is to construct a dual financial

system that synchronizes and coexists with the conventional banking system to operate the banking system. However, the window is required by BNM to keep its assets and operations distinct from the non-shariah compliant banking system. Since it improves their operating costs, traditional banking has warmly embraced the window kind of banking operation. Conventional banks can absorb a significant amount of the expensive overhead costs, including computer, staff, security systems, leasing, and many others by operating under a window system. The shown profit for the Islamic window is typically exaggerated at this point.

Furthermore, BNM launched a subsidiary for Islamic banking in 1999, enabling traditional banks to convert their window banking into full-fledged Islamic banks. The market for Islamic banks began to grow and become more competitive in 2000 as more trustworthy IBIs entered the market. Islamic banking is currently a new player on the banking scene. Since the beginning of establishment, improvements have not only been made in terms of systems. It involves legal, product, staff, management, and compliance, all of which contribute to proving the marketability of the banking system. Currently, according to BNM, there are 16 banks operating in Malaysia's Islamic banking industry in 2022.

Talent development and growth is the foundation for the development and growth of Islamic banking. It is the most important asset in the sector, and it will remain at the forefront of the agenda for ongoing improvement if the sector is to maintain its adaptability and achieve sustainable growth. However, In recent years, the difficulty and issue of talent development in Islamic banking institutions has emerged as a critical issue in the formulation of Malaysia's future growth and sustainability as an Islamic banking centre of excellence. Despite the number of Islamic banking education and knowledge service providers has shown progressively increased year by year, talent shortage issues remain unsolved (Aziz, 2017). Survey conducted by Manpower Group (2013) discovered that most of the candidates were lacked in the specific skills which been looking by the employers to filled the positions in the organizations.

The researcher will explore three major issues concerning the skill shortage in Malaysian IBIs. To begin, there is a talent shortage in IBIs due to a lack of coordination between companies and educational institutions. Following, according to IBBM (2014), IBIs experienced a talent shortage since they were unable to attract young talent. IBBM (2014) stated that they observed that some IBIs were unable to attract young talent because of outmoded employee propositions. These outmoded employee propositions included things like unappealing entitlements, flexible working hours, and basic salary, all of which did not match the preferences of young people. Lastly, Asian Islamic Finance (AIF) highlighted that the main source of talent scarcity in IBIs is a mismatch in skills given by IBIs and Islamic banking education institutes (AIF, 2015) and Islamic banking education institutions (IBEIs).

Furthermore, the expanding momentum of Islamic banking institutions has resulted in the creation of a sizable percentage of the 200,000 workforces required by Islamic banking institutions by 2020 in a range of disciplines. The Economic Transformation Programme (ETP) intends to treble the existing 6,000 undergraduate enrolment rate in Islamic finance to 54,000 by 2020 in order to satisfy demand. The ETP seeks to raise the proportion of students with marketable skills in Islamic banking from 64.8% in 2010 to 80% by the program's end in 2015.

Despite major attempts to improve Islamic Finance training and education many challenges remain unresolved. Aziz (2017) indicates 68% of businesses felt that inadequate talent management programme execution is the primary reason of the talent shortage. As a result, the feasibility of the Malaysian educational system to develop well-equipped talent to meet the demand and supply of talent in companies and universities remains an open question. With the

current practise in IBIs, the talent management mechanism has become a dubious issue, in addition to the facts described previously. A talent shortage could have an influence on IBIs company at the organisational level.

Overall, this study aims to identify the root factors of the talent scarcity in IBIs, as well as to investigate to what extent and which elements are most influential in influencing the talent shortages; talent demand or talent supply.

LITERATURE REVIEW

Talent Demand

The research is primarily concerned with three key parameters: talent demand, talent supply, and skill shortages. As a result, for the discussion, the researcher first focused on talent demand prior proceeding onto other elements. According to Cappelli (2008, 2009), talent demand reflects talent availability and can be forecasted in order to plan for the organization's future. In the last 10 years, Michaels et al. (2001) have highlighted that talent demand refers to corporations or organisations engaged in a talent conflict, and numerous reports have attempted to explain the phenomena (Fishman, 1998; McCracken, 1999; Woodruffe, 1999; Chambers et al., 1998; Sturman et al., 2003).

Several scholars had opposing viewpoints on talent demand at the same timeframe. Brown (1990), Mulder and Ellinger (2013), and Cumming and Worley (2014) have all highlighted the peculiarities of their individual organisations' talent functions. In addition, it is at this point that each work scope has a job function assigned to it. Another researcher expresses an opposing viewpoint on talent demand throughout the context of when an organization has taken on or employed a talent into their organisation. The talent is then rewarded with appropriate incentives, salary, and employee perks (Lawler, 1981; Tremblay et al., 2000; Bartol & Srivastava, 2002; Child, 2015; Lawler, 1981).

According to the data provided in this discussion, the demand for talent is driven by the desire for talent within organisations. Moreover, the company is in complete command of the employment market's supply of available talent. They have complete control over talent, which includes the capacity to hire or not hire, retain or not retain, and develop or not develop. Despite their ultimate strength, this organisation is nevertheless subject to government legislation or sovereignty. Any organisation is required to abide by a government statute or policy when it is implemented. Regardless of how the government develops policy or legislation and standards, they have the obligation to enforce them against any institution under their jurisdiction.

Furthermore, numerous cohorts, including baby boomers, younger Generations, millennials, and generation Z, have filled skill demand patterns. Generation X, abbreviated as gen X, is the demographic group that succeeded the baby boomers and before generation Y, or millennials, and generation Z, or the youngest generation, is the post-millennials.

According to Brova and Kroth (2001), generation Xers in the workplace are parallel thinkers who are embracing of innovation, comfortable with diversity, practically competent, and lifelong learners. Meanwhile, Generation Y, also known as gen Y, is a demographic cohort which follows Generation X but precedes Generation Z. Between the early 1980s and the early 2000s, this generation was born (Howe & Strauss, 2009). Martin (2005) classified gen Y's workplace qualities as being independent, tech-savvy, having an urgent sense of urgency, being an entrepreneur, taking on more responsibility, having a "get off my back" attitude, a requirement

for flexibility, a free agency ideology, and being high maintenance. The topography or socioeconomic environment of a workplace changed with each generation within that organisation. Attracting, engaging, and appreciating different generations has developed as well. Generation Y is currently the most educated generation in contrast to previous generations, with the demographic having the broadest educational opportunities.

In addition, generation Z, the youngest generation, was born and reared under entirely different conditions than the preceding past generations (Anna Dolot, 2018). Sing Dangmei's (2016) study identified generation Z as a group that was born in the 1990s and raised in the 2000s during the century's most significant developments and who lives in a world with the web, internet, smart phones, laptops, freely accessible networks, and digital media. It's believed that this generation will experience its adolescence and adulthood during a time of economic and social renewal (Sidorcuka, Chesnovicka, 2017).

They arrive at work needing more maintenance and seek a better starting salary, work-life balance, flexible hours, and alluring employee benefits to support their current standard of living (Amour, 2005; Martin, 2005; Eisner, 2005; Larid et al., 2015; Kutalahti & Vitala, 2015). At this point, the talent revolution has been hinted at, whether in the workplace or on the labour market. The organisation must therefore be in tune with the environment in order to hire the best candidates on the market, or else they run the danger of losing the talent needed to fit into their organisation. Each company or organisation tries to hire the best people for the cheapest price in what is known as a "talent war."

Talent Supply

According to the rule of supply and demand, there will always be a supply of whatever is in demand. The researcher will go through the idea of talent supply in this section. Romer (2001) defined the term "talent supply" as institutions of higher education that have generated talent for any respectable sector. Haggstorm originally outlined four main categories of talent supply in 1988: new entrants into the system, former talent who re-enters the system, holdover talent from the previous year, and immigrant talent that has been transferred into another system.

According to Stephan and Silvia (2008), talent supply can be created and grown within businesses or organisations. They stated this in response to the earlier concept of talent supply. In these situations, talent supply is the best place to advance talent, after which it can be outsourced internationally based on two criteria: firm level capacity and experience.

The complex and sophisticated market environment that organisations operate in has altered their talent requirements. It is the role of talent supply to respond to the context and develop the talent to fit into this competitiveness setting. The talent supply division is in charge of giving current employees advanced employability skills. Aside from that, the new talent generation was raised in a knowledge economy in which intellectual abilities were valued more than natural resources and physical inputs (Brown et al., 2003, 2004). An integration development talent in talent supply should start with a core value set that incorporates knowledge (Carter & Carter, 2007), education (Brown & Tannock, 2009), and technology (Kuo & Lee, 2016).

But these three pillars—talent (Cappelli, 2008), infrastructure (Gattorna, 2005; Cappelli, 2008), and curriculum—serve as the basis for the operation of talent supply institutions (Cappelli, 2008; Gattorna, 2005; Cappelli, 2008). (Leon & Uddin, 2016; Sinha et al., 2016).

On this basis, there have been numerous arguments about what framework or philosophy should be used to perform the designated factors in the current context. Two well-known frameworks or theories that have long been associated with the creation of talent are the talent supply chain and talent management. As earlier indicated, talent management is a managerial management of the movement of talent within an organisation (Iles et al., 2010). In contrast, Christensen Hughes and Rog (2008) merged the talent management approach with supply chain theory to improve limited supply. Unlike Gattorna (2015), the author emphasised that supply chain value can be used in the future to attract talent from within or beyond the organisation. A different piece of research showed a connection between the supply chain model and the viability of hiring people from a talent pool (Miemczyk & Johnsen, 2012).

The area that develops a talent is based on the specific needs to be given into the institution that is in need of a skill. In the course of the production process, the talent supply should identify and develop talent. The most important factor in creating competent individuals during this process is the need for extensive infrastructure. Curriculum also acts as a means of transmitting knowledge and abilities from infrastructure supporting talent supply to desired talent. As a result, the availability of talent is a crucial indicator for identifying skills gaps and subsequently cultivating talent for specific institutions.

Government Policy and Support

Previous literature has numerous discussions on the effects of government policy implementation. Amran and Susela Devi (2008), on the other hand, assessed the effect of government policies on corporate social reporting. The government was discovered to play a significant influence in the perception management development and policy application of corporate social reporting. The following study was conducted by Rosli and Sidek (2013), and it investigated how the interaction between government regulation and the development indicator impacted the development efficiency of small and medium-sized firms. Government policy has been shown to foster growth inventiveness throughout small and medium-sized firms. The authors then advised that two approaches (subsidy policy and support strategy) be implemented to avoid negative effects rather than the one policy that is now in existence.

In contrast, many forms of evidence related to legislative and regulatory implementation were explored in the literature reviews. Likewise, Prasad et al. (2006) demonstrated that government policy intervened in initial public offers (IPOs) under-pricing as comparable to IPOs under-pricing in other developing countries.

Finally, the scope of a comprehensive study of legislative and regulatory research remains limited. The most of the data uncovered in the debate was about policy, most of the time. It is unusual to stumble across an issue that has been discussed for more than ten years. The majority of government programmes only last for five years because of electoral shifts in the country's political status. As a result, tying the legislative and regulatory dimension to other dimensions assures that it can be used throughout the model's development process. Because each policy issued has a unique influence, administration as a stand-alone aspect could not be aggregated over a long period of analysis. However, it must be connected with the other parameters since data indicates that political change can influence how intensely the variables impacted.

Talent Shortage

A number of academics have suggested a definition of a skills shortages. Crainer and Dearlove (1999) utilised harsh rhetoric to portray executive talent shortage as the death of executive talent. The term "workforce crisis" was used to contrast the definition offered by Dytchwald et al (2013). Hewlett et al. (2005), on the other hand, characterised "talent shortage" in terms of "hidden brain drain." Miner (1974) defined talent scarcity as a dearth of talent that is akin to a human limitation within an institution or organization. As a result, despite the definition set by scholars in the past, the term has clearly led to a skill, intellectual resource, or labour shortfall in both supply and demand sectors. The skills shortage will be discussed in greater depth later.

Heidi (2009), who acknowledged the earlier argument over the talent shortage, a comprehensive management and leadership approach should be implemented as a successful strategy in each unique organisation or industry. According to PwC (2015) data, 93% of global CEOs agree that upgrading management methods is the best strategy for dealing with a talent shortage. This discovery is consistent with previous assertions. Furthermore, the long-term detrimental impact of talent shortages could limit industry expansion (Barron, 2008), create heated competition for talent globally (Beechler & Woodward, 2009), promote high mobility retention (D'Costa, 2008), and damage business performance (AIF, 2015).

The demand for talent has risen significantly as a result of the market for IBIs experiencing an increase in talent needs (MIFC, 2014; W. Hassan, 2014; AIF, 2015). IBIs have now generated a competition for top personnel within the Islamic banking sector. These reasons contribute to the acute level of the skills mismatch at IBIs (Marimuthu, 2015). Manpower Group (2015) found that 38% of employers struggled to find and hire the best applicants, which resulted in a talent shortage in their organisation.

The integration of the core resources found in institutions of higher learning, which are comprised of talents, institution facilities, and curriculum, would produce a complete value for the growth of talent. This value would be presented by the comprehensive value (Aziz, 2006). The disagreement in how talent develops was widely emphasised by higher education institutions regardless of the fact that a number of talent development initiatives have been implemented. There seems to be a discrepancy between the skill set provided and what is required in the past and present plans (Dalila, 2015; Marimuthu, 2015; Mark, 2015).

Therefore, a skill gap within a certain organisation could have severe consequences for the future growth of the organisation. A thorough, holistic approach to the management between talent demand and supply of every sector, including the authorities, organisations, and institutions of higher learning, is the best way to meet the issues of the talent shortage. The equilibrium among talent availability and resource seems to be achieved.

Foundational Theories

The development of the conceptual model incorporated Maslow's Theory of Motivation. According to proponents of various motivational theories, a person's actions are guided by their ambitions, intuition, motivations, desires, and priorities, as well as their state of arousal (Maslow, 1943). Maslow's theory of motivation suggests that individuals are driven by a range of needs, which each requires a person to attain a particular prerequisite in order to proceed to the following advanced level need. This idea can be used to analyse human motivation. Maslow maintained in his philosophy of motivation that once certain needs are met, a person will seek to satisfy further wants. Individuals are inspired to fulfil specified requirements. Abraham

Maslow, a psychologist, suggested a hierarchy of requirements for individuals to fulfil in order to achieve self-actualization.

Following that is the doctrine of the law of supply and demand, which, on the contrary hand, has been disputed for both the concept it proposes and the way it is applied. Robinson (1962) argued that it should be in a similar theme instead of a circular. She also stated that because human behaviour is spontaneous, the concept hypothesis was rigid and therefore could not be extended to all ideas. Despite several criticisms, many scholars have sought to improve the function of the supply and demand law by analysing the extent of new element engagement, long-run demand and supply elasticities function (Nerlove, 1958), dynamical impact (Blanchard & Quah, 1988), and lead process time (De Treville et al., 2004).

The next topic to be covered is the philosophy of human capital. The two fundamental beliefs that are applicable to the present day are those of Gary Becker and Theodore Schultz from 1960. (1975). Since its inception in the 1960s, the Human Capital Theory has made a significant contribution to contemporary economic value. The theory showed how information has a significant impact on economic development and growth. The promotion of knowledge in the economic country will enhance their productivity expansion as a tool or role indication of their progress as a nation or country. Better educational investments would benefit the country and even the individual from an economic perspective.

Conceptual Framework

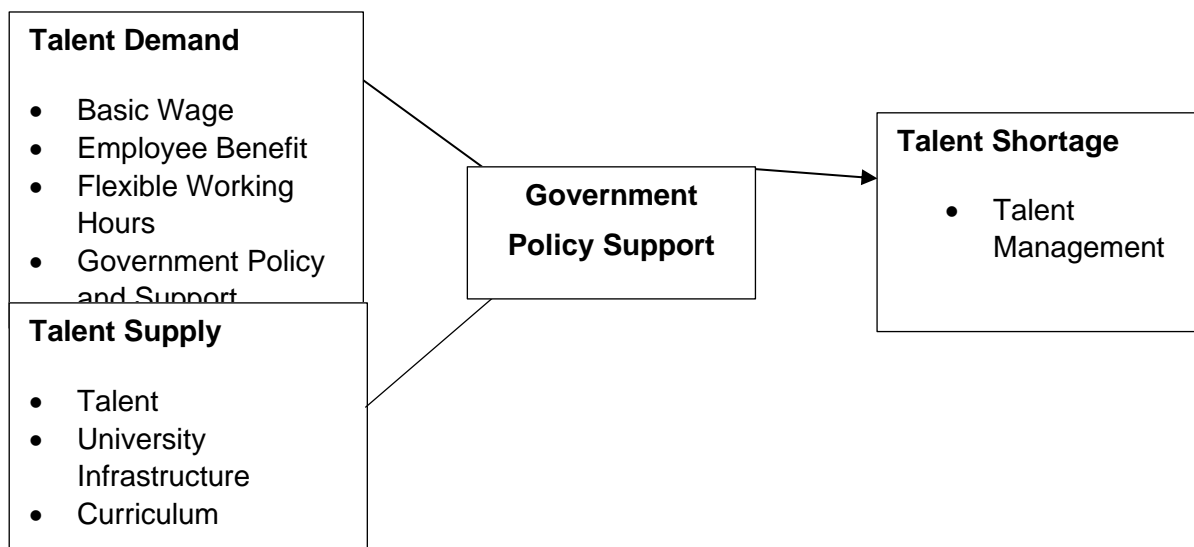


Figure 1: Talent Development Model for Talent Shortage in Malaysia IBIs

The first category's parameter is talent gap, and the next category's explanatory variables are talent demand and talent supply. Talent management is a subdimension in the formation of the talent shortage. While base salary, employee benefits, flexible hours, and policy decisions are the four subdimensions of skills demand. Education, institutional apparatus, and talent were all part of the talent supply.

Using this conceptual framework, a questionnaire about modelling the talent shortfall in IBIs was created to ascertain the extent to which factors connected to talent demand and supply impacted to talent shortage. The expertise will next contribute to the evaluation and validation of the justification after reviewing the responses data. The expert feedback will lead to the model's deconstruction, enhancement, and reinstatement for better development. Additionally, this research framework answered two research hypotheses that evaluate the connection between

talent availability and skill deficiency. This study's hypothesis states that the degree of an association between the dependent and independent variables should be measured. The research's hypotheses are listed below:

- H1: There is a positive relationship between Talent Demand and Talent Shortage.
- H2: There is a positive relationship between Talent Supply and Talent Shortage.
- H3: There is a positive relationship of Government Support towards Talent Shortage.
- H4: There is a mediation effect of Government Support between Talent Supply and Talent Shortage.
- H5: There is a mediation effect of Government Support between Talent Demand and Talent Shortage.

As a result, path analysis will be utilised to investigate the two propositions in order to determine the type of the correlation impact between the independent and dependent variables. There would be more discussion about the findings in chapter three, in particular.

RESEARCH METHOD

This is a quantitative study, hence the study's objectives will be derived in the first chapter, followed by a review of the literature. The study will establish the study's framework and serve as its underlying structure during the literature review portion. Following the determination of the variable and framework, investigation of the relationships between the measured variables and the talent shortage in IBIs will take place. Exploratory and descriptive are two of the qualities of this empirical technique. Thus, a deductive strategy will be used to perform both the theoretical study and the empirical investigation in order to meet the study's overall aims.

Systematic sampling is a method of sampling that will be utilised in this category. Since it is a probability sampling, it is appropriate for SEM analysis and therefore can reduce bias (Kya, Ngor & Awang, 2012; Zikmund, 2012; Bryman, 2015). The total population consists of 2507 undergraduates; however, only 335 respondents were chosen as suggested by Krejcie and Morgan (1970) by using the "Krejcie and Morgan table to determine sample size," as it is simple to use and practical; it is also simple to refer to and has been referred to by many previous researchers who comply with this research (Reid, 1992; Renzulli, 1992; Moon, 2003).

The sampling were chosen among Malaysian public universities, as according to Malaysia Quality Accreditation, there are 7 IPTAs that offered bachelor degree Islamic banking program related, UITM, UniSZA, UUM, IIUM, UMS, USM, and UMK (MQA, 2014). For this category, a cluster sampling will be used because it is easy and convenient to apply. There are four categories to be segregated, which are North Zone (UUM & USM), South Zone (UITM & IIUM), East Coast (UMS) and East Zone (UniSZA & UMK).

The instrument of the research used structured interview that is the questionnaire to collect data from respondents that will be distributed among university undergraduates who enrolled in bachelor degree of Islamic banking programmes related that are offered by Malaysian public universities. The undergraduates will be selected from 6th or final semester due to their study subject of Islamic banking focus.

This study employs two sorts of data collection methodologies. The first is a document, which includes a journal, yearly report, and so forth, while the second is a questionnaire. In order to ensure that this study is researchable, two key phases of data collecting will be used. The second part is to create the survey instrument, which will be a questionnaire. The questionnaire is divided

into four sections: A (Demographics), B1 (Talent Demand), B2 (Talent Supply), C (Government Policy Support), and D (Talent Shortage), each on a 10-point Likert scale. That scale is used by respondents for critical data feedback and hinders a truthful response.

This questionnaire was based in part on a previous research project, and the components were drawn from a variety of existing surveys (see Table 1). The completed surveys will be assessed for reliability and validity by an expert to ensure that the questionnaire is safe to use.

Table 1: Summarise on the number of questions

Measurement	No. of items	Author
Section 1: Respondent profiles	5	Adopted and adapted by Aziz, Yahya & Wahab (2014).
Section 2: Talent supply	15	Adopted, adapted and supported by Harika Rao (2015), Patricia and Julie (2012), Barlow & Antoniou (2007), Biswas (2012).
Section 3: Talent Demand	15	Adopted, adapted and supported by Radha (2014), Ram (1985), Machado (2015), Ronen (1981).
Section 4: Talent Shortage	5	Adopted, adapted and supported by Thomas A. (2012), Petersons and Luthans (2006), Heidi (2009).
Total	40	

The IBM-SPSS and IBM-AMOS statistical software packages are the two types of tools that are proposed for use in the analyses. Both inferential and descriptive analyses can be carried out with the assistance of these two different sorts of instruments. Then, factor analysis was used to define the variability among reported, correlated variables in terms of the possibility for a smaller number of unseen variables that were referred to as factors. Finding independent latent variables is the goal of this endeavour. In addition, confirmatory analysis, also known as CFA, is utilised in order to verify the measurement model of the concept as well as test the hypothesis that is expressed in the path model. The approach that was taken in order to test the structural model of SEM. The standard least square regression has a drawback, and this method addresses that issue by concentrating on how to deal with a latent component within the model.

ACKNOWLEDGEMENTS

This research was supported by Ministry of Higher Education with the grant name Fundamental Grants Research Scheme (FRGS) FRGS/1/2020/SS02/UMK/02/2.

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Perceptions and HIV-Related Knowledge Against People Living with Human Immunodeficiency Virus (PLHIV) as Future Employees: A Narrative Review

Mohamad Syarif Bin Saufi¹
Shah Iskandar Fahmie Ramlee²
Balakrishnan Parasuraman³

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia.
Correspondence email: a21e032f@siswa.umk.edu.my

ABSTRACT

Perceptions and HIV-related knowledge are serious issues in their own right. However, both of them have been extensively examined in studies. The purpose of this paper is to explore perceptions and HIV-related knowledge against people living with the human immunodeficiency virus (PLHIV) as future employees in management settings. People are no strangers to their tasks, yet the fundamental importance is their awareness as role models. Moreover, with the current pandemic situation, the challenge is made even stronger, especially with the acceptance of an existing epidemic of HIV. This narrative study examines perceptions and HIV-related knowledge against people living with the human immunodeficiency virus (PLHIV) as future employees in management settings, published in peer-reviewed journals between January 2019 and July 2022. The findings provide insight into the key issues of stigmatization and discrimination, specifically negative perceptions and low HIV-related knowledge against HIV/PLHIV. The implications from the review literature suggested that; more focus is required on HIV education strategies; maintaining in-service education on HIV and AIDS; improving suitable AIDS-related education and intervention based on characteristics and needs; developing pertinent policies; and lowering HIV insecurity.

Keywords: Perceptions; HIV-Related Knowledge; HIV; PLHIV; Future Employee; Stigmatization; Discrimination.

INTRODUCTION

Acquired immune deficiency syndrome (AIDS) is caused by human immunodeficiency virus (HIV). People Living with HIV (PLHIV), which affects an estimated 37.9 million people worldwide, are infected (Case *et al.*, 2019). The most serious issues that HIV-infected people face are related to stigmatization of themselves, their peers, and others. They believe that they want to go as far as possible on this journey, especially in the world of work later. People living with HIV (PLHIV) face a number of challenges worldwide, including HIV stigma and discrimination (Fauk *et al.*, 2021). In employment, a concern of an ongoing issue in recruitment and hiring are discriminatory practices (Sanchez *et al.*, 2020) and, believe it or not, that started from perceptions. According to Paukert *et al.* (2021), indicated in their study that negative perceptions do still exist. Therefore, knowledge is a main factor of awareness and a crucial part in decision making. A better understanding or knowledge of HIV/AIDS helps to spread awareness of the infection (Agegnehu *et al.*, 2020). According to Human Sciences Research Council (HSRC) press (2018), with an approximately 7.9 million HIV-positive individuals living in South Africa, the country has one of the highest HIV burdens in the world (PLHIV).

However, in Malaysia, the country's progress report of global AIDS monitoring in 2020, there were an estimated 92,063 people living with HIV (PLHIV) at the end of 2020 (Anita *et al.*, 2020). The example of the estimated amount proves that all ages, whether adults or children, are infected. It might be that they are likely to be unemployed, students, workers, or under family care. The rationale for the review is to see if this minority community has been seen as future employees with zero stigma and discrimination from aspects of perceptions and HIV-related knowledge. In addition, the review of other literature could be a valuable addition in order to reduce stigmatization and discrimination. The recommendations in the review literature may be very important for all in management settings to improve the quality of perceptions and knowledge of individuals, organizations, or countries.

Furthermore, this review is to reduce stigma and discrimination against PLHIV based on perceptions and HIV-related knowledge. It is because people living with HIV (PLHIV) have mental health problems and require emotional care (Tuan Abdullah *et al.*, 2021). The main purpose of this paper is to explore perceptions and HIV-related knowledge against people living with the human immunodeficiency virus (PLHIV) as future employees in management settings. Therefore, the goal is to lay the groundwork for further study, discussion, and debate.

RESEARCH METHOD

The paper of this study is a narrative literature review of perceptions and HIV-related knowledge against PLHIV as a future employee in management settings published in journals of peer-reviewed between January 2019 to July 2022. With a click of data searching in cyberspace, a thousand or even more pieces of information could be gathered. Electronic databases, i.e., Google Scholar, were systematically examined by a reviewer using "perceptions" and "HIV-related knowledge" keywords, which were identified from the database year by year: 2019, 2020, 2021, and 2022 ($n = 118,900$) and after articles screened for the years 2019–2022, which identified 17,100 potentially relevant studies. Publish in English, peer reviewed, publications are the inclusion of criteria applied to the titles and abstracts that were examined between 2019 and 2022. The procedure of including or excluding eight articles (Figure 1). Beginning in early 2019, the review will continue until July 2022. It measured or discussed perceptions and HIV-related knowledge in parallel to the stigma and discrimination. In addition, articles that did not discuss or measure as indicated by these terms were excluded.

RESULTS AND DISCUSSION

Table 1 involved various target audiences in their study, such as students, nurses, black men and women, FSWs (Female Sex Workers), and young adolescents (aged 10–14 years). In five out of eight studies on HIV-related knowledge reviewed (Alawad *et al.*, 2019, Sun *et al.*, 2020, Chigozie and Sayward, 2021, and Opoku *et al.*, 2022), research has examined how students perceive or understand HIV. Another one is reviewed (Bhagavathula *et al.*, 2021) with samples of not only students but then combined with FSWs (Female Sex Workers), the general public, and healthcare workers (HCWs). So, the total number of reviews involving students is five for HIV-related knowledge. The rest (Boakye *et al.*, 2019, Badru *et al.*, 2020, and Thorpe *et al.*, 2022) have been reviewed on HIV-related knowledge for nurses; young adolescents; and black men and women. Perceptions in table 1 have two out of eight studies reviewed (Alawad *et al.*, 2019, and Badru *et al.*, 2020) involving the perceptions of students and young adolescents towards HIV/AIDS and PLHIV. However, there are some additional benefits in the review that have been done by previous studies, even if it is unrelated to the present review, such as attitudes, practices, behavior, and perceived risk of HIV.

Table 1: Reviewed Literature

Author and year	Aim	Type and sample size	Results and conclusions
(Alawad <i>et al.</i> , 2019)	Measured medical students' knowledge, attitude, and beliefs regarding HIV/AIDS and PLHIV	Research $n = 204$ students	More than half of the students stated that they would not visit HIV-positive friends and provide care to HIV-positive relatives in their own homes. Educational approaches should be tailored by educational institutions based on the identified gaps. Maybe it helps to ease the stigma and negative attitudes.
(Boakye <i>et al.</i> , 2019)	Assessed nurses' knowledge, attitudes and practices towards patients with HIV and AIDS in Kumasi, Ghana	Research $n = 247$ nurses	Despite having sufficient knowledge of HIV and AIDS, some people continue to believe falsehoods and have misconceptions about how HIV spreads. Some nurses had negative perceptions as a result of their anxieties of getting the infection.
(Badru <i>et al.</i> , 2020)	Examine the factors associated with comprehensive HIV knowledge, stigma, and HIV risk perceptions among young adolescents aged 10–14 years in Akwa Ibom State, Nigeria	Review = 2017 Akwa Ibom AIDS Indicator Survey (1,818 young adolescents)	To improve compliance with universal precautions and other preventative actions like taking PEP, promote understanding, correct misconceptions, and encourage positive feelings, there is a critical need for ongoing in-service training of nurses on HIV and AIDS.
(Sun <i>et al.</i> , 2020)	Compared the difference of college students from six majors in China in the aspects of AIDS-related knowledge, attitudes and behaviors	Research $n = 18,644$ students	Overall, 81.5 percent of young people reported stigmatizing behaviors against HIV-positive people and it indicates low comprehensive HIV knowledge among young adolescents. The results indicate that young adolescents need to receive more attention, especially when it comes to providing complete, useful sexuality education, including HIV

			<p>at the family and school levels.</p> <p>Except for medical students, education majors had the lowest amount of understanding of AIDS.</p> <p>It is critical to improve appropriate AIDS-related education and intervention based on the characteristics and needs of students from various majors or universities, such as improving comprehensive AIDS prevention education among students.</p>
(Chigozie and Sayward, 2021)	Investigated HIV knowledge, risk perception, and testing behaviors among a sample of college students in South Carolina	Research $n = 256$ undergraduate students	<p>Some students demonstrated ignorance of how HIV spreads. Less people reported having ever had an HIV test and feeling like they were at risk for the virus. The majority of them claimed that if they contracted HIV, they would feel ashamed. HIV testing and awareness of the virus were negatively linked.</p>
(Bhagavathula <i>et al.</i> , 2021)	Performed a systematic review and meta-analysis to examine the level of knowledge and attitude towards HIV/AIDS in India.	Review = 47 studies ($n = 307,501$) were identified	<p>The evidence points to the need for HIV education among college students in South Carolina in order to dispel misunderstandings, overcome knowledge gaps, minimize stigma associated with HIV, and encourage HIV testing.</p> <p>Female sex workers (FSWs) have the highest level of knowledge on HIV/AIDS, followed by students and the general public, with a 75% overall knowledge level. Students, PLHIV, the general public, and</p>

			<p>healthcare workers (HCWs) had sub-optimal favorable attitudes on HIV/AIDS (58 percent, 57 percent, 71 percent, and 74 percent, respectively). Seventy-five percent of people were knowledgeable, and forty percent were negative. With the use of this information, many organizations, ministries, and academic institutions could develop relevant policies to include in their initiatives for advocacy, capacity building, and training. The success of India's HIV/AIDS response still depends on educating the population and influencing attitudes there.</p>
(Thorpe <i>et al.</i> , 2022)	Investigated the correlation between HIV knowledge and perceived risk of HIV contraction among Black men and women who are incarcerated in Kentucky, and analyzed gender differences in HIV knowledge and perceived risk	Research $n = 424$ black men and women	<p>Education and HIV knowledge were positively correlated. There is no link between knowledge of HIV and risk perception. Nevertheless, there was a link between gender and perceived risk and understanding about HIV. In comparison to men, women reported higher levels of HIV knowledge and a higher perceived risk of contracting the virus. The results are in line with Kerr and Jackson's (2016) recommendations for reducing HIV insecurity among prison populations, including; connecting inmates to care upon community re-entry; expanding access to sexual risk reduction programs for those who are currently incarcerated, previously incarcerated, and their</p>
(Opoku <i>et al.</i> , 2022)	Investigated the knowledge, attitudes and practices regarding HIV/ AIDS among senior high school (SHS) students	Research $n = 294$ senior students	

			<p>partners; and lessening HIV stigma within prisons and community organizations. Participants demonstrated negative perceptions toward PLHIV, lacked adequate knowledge of HIV/AIDS, and engaged in risky behaviors that could have put them at risk for HIV transmission. The results highlight the need for basic HIV education that is age- and culturally-appropriate for youth in urban areas, addressing misconceptions about HIV transmission, students' unfavorable attitudes toward people living with HIV, and risky student behaviors related to HIV.</p>
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Furthermore, due to their focus on young adolescents between the ages of 10 and 14, (Badru *et al.*, 2020) provides an overview of the most effective assessment and management techniques at the moment. They (young adolescents) are future leaders or future employees. When it comes to offering comprehensive, practical sexuality education, including HIV education at the family and school level, Badru *et al.* stated that stigmatizing and poor comprehensive HIV awareness need more attention, especially to all of them.

HIV-Related Knowledge

A critical review of the HIV-related knowledge in the studies showed the majority have low knowledge about HIV/PLHIV from four out of five articles is related to students (Alawad *et al.*, 2019, Sun *et al.*, 2020, Chigozie and Sayward, 2021, Opoku *et al.*, 2022), followed by young adolescents (Badru *et al.*, 2020) and lastly, black men (Thorpe *et al.*, 2022). The students who have low knowledge demonstrated ignorance of how HIV spreads. As a result, they never check for HIV status (Chigozie and Sayward, 2021). However, Bhagavathula *et al.* (2021) argued that the overall knowledge level, including students, is 75%, unless the highest one is FSW (Female Sex Workers). In addition, some reviewed (Thorpe *et al.*, 2022; and Boakye *et al.*, 2019) in different categories of respondents have high and sufficient levels of knowledge about HIV, namely, black women, and nurses. Unfortunately, for nurses, Boakye *et al.* found that some of them continue to believe falsehoods and have misconceptions about how HIV spreads.

Perceptions

Negative perceptions are the mind's silent killers, even if no one is aware of them. According to Boakye *et al.* (2019), negative perception as a result of anxiety about getting the infection

is a common misconception. Some nurses had negative perceptions, according to Boakye *et al.* Furthermore, perceptions can also be related to beliefs. It is because perception produces beliefs (Smith, 2007). Because of their misconception about how HIV spreads (Alawed *et al.*, 2019), more than half of the students stated that they would not visit or care for HIV-positive friends or relatives. In conclusion, the reviews came up with the implication that: education approaches or HIV education; ongoing in-service HIV/AIDS training; more attention needed for young adolescents; improving appropriate AIDS-related education and intervention based on characteristics and needs; developing relevant policies; and reducing HIV insecurity, including connecting inmates to care upon community re-entry, expanding access to sexual risk reduction programs, and lessening HIV stigma were all necessary. As a future employee, best practice and actual practice must be paralleled. On the other hand, Abdullahi *et al.* stated that in their study by using the theory-practice gap. It can be characterized as a failure to connect perception and knowledge. However, the findings indicated that knowledge and perception had more than 80%, which is a good level. It will result in the reduction of gaps and improvement of quality (Abdullahi *et al.* 2022). Both the finest and current practices are seen as using it.

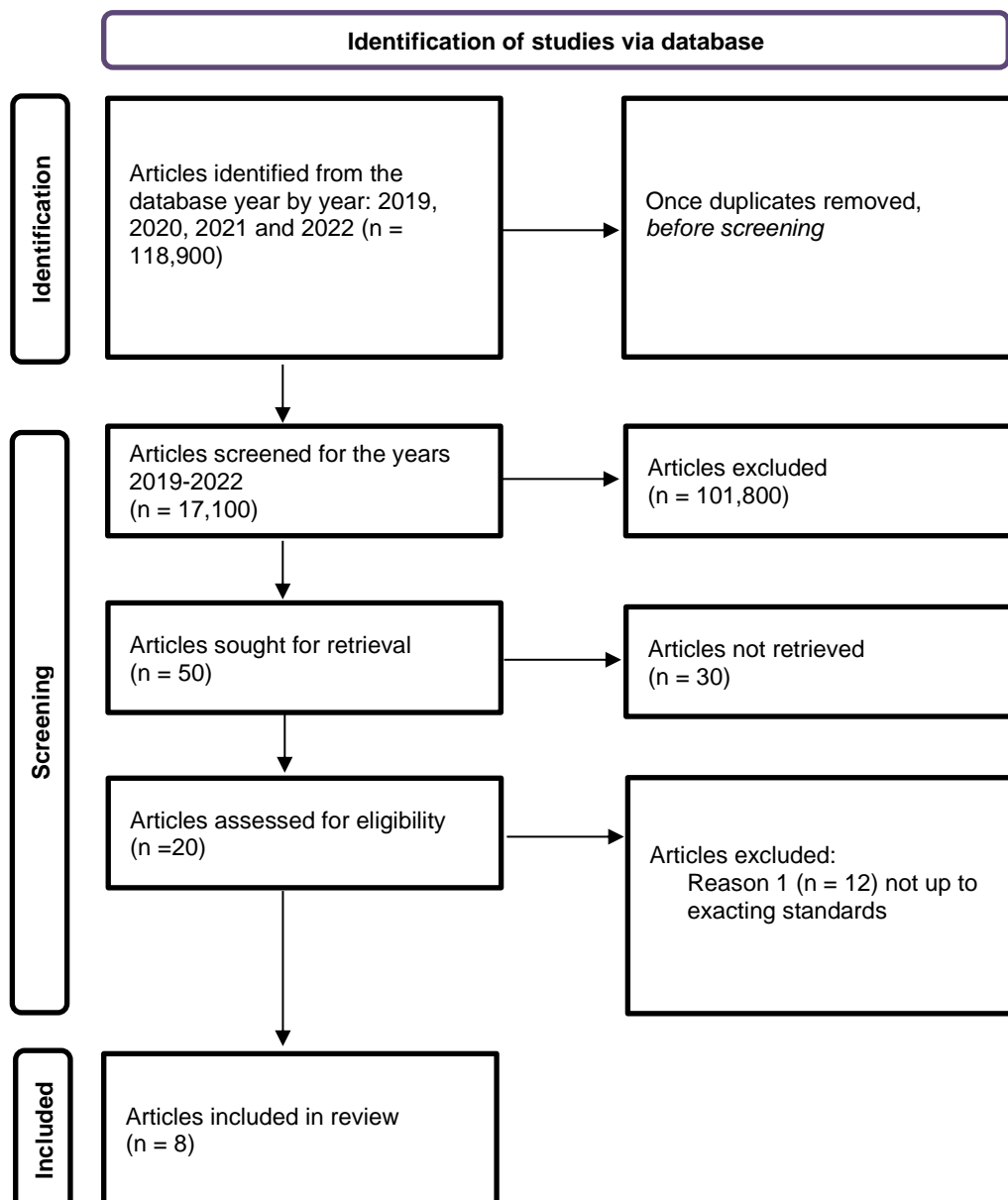


Figure 1: Search of Database (PRISMA flow diagram)

CONCLUSIONS

Knowledge is the core of understanding. As a result, the value of knowledge is decided by our capacity to gain the kind of understanding that would enable us to make decisions that are both effective and purposeful in carrying out the appropriate things (Reznicek and Smutny, 2020). Furthermore, the main purpose of reviews is to explore perceptions and HIV-related knowledge against people living with the human immunodeficiency virus (PLHIV) as future employees in management settings.

As summarized in HIV-related knowledge and perceptions against HIV/PLHIV reviews, there is low and high knowledge about HIV, and also negative perceptions that encourage stigma and discrimination. In addition, the major findings are that both the level of HIV-related knowledge and perceptions still need to improve more and more. Stigma and discrimination still exist. So, we do believe the statement by Paukert et al., 2021, that negative perceptions still exist.

Besides, the best thing about the review is that the authors suggested many solutions to improve perception, increase HIV-related knowledge, and reduce stigma and discrimination such as; more focus is required on HIV education strategies; maintaining in-service education on HIV and AIDS; improving suitable AIDS-related education and intervention based on characteristics and needs; developing pertinent policies; and lowering HIV insecurity.

Reflect back on the introduction, either minority community (PLHIV) are seen as future employees with zero stigma and discrimination, but then the result is "No" for now and maybe in the future onwards. In 2019-2022, people still have low knowledge and negative perceptions about issues involving stigma and discrimination. However, the reviewed articles suggested a lot of ways to overcome these obstacles, but then the most important thing is implementation. How far has the implementation been carried out, and what is the effectiveness of these solution paths? We hope that future research will delve deeper into the implementation and effectiveness.

ACKNOWLEDGEMENTS

In article review, the wide range of disciplines involved means that much assistance as an editor is needed to search and compile the relevant studies by using database search. A special thanks to electronic databases because "with the click of data searching in cyberspace, a thousand or even more pieces of information could be gathered".

Furthermore, I would like to express my heartfelt gratitude to the Faculty of Entrepreneurship and Business, University of Malaysia Kelantan, for inviting me to the FKP Postgraduate Research Colloquium 2022.

Last but not least, any attempt at any level cannot be satisfactorily completed without the support and guidance of my parents and siblings. I am really thankful to them and I am very grateful to myself as well for the thought and discipline to finish this write-up for an article.

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The Effectiveness of Resources and Information Technology to Operational Performance in Logistics Service Providers (LSP)

Nur Ilyana Amiiraa Nordin¹
Zuraimi Abdul Aziz²
Hazriah Hasan³

¹²³Faculty of Entrepreneurship and Business, University Malaysia Kelantan, Malaysia
Correspondence email: ilyana.a20d022f@siswa.umk.edu.my

ABSTRACT

Logistics services are a set of management operations given by a logistics service provider in order to meet a customer's needs. Logistics service effectiveness may provide customers with value-added advantages and satisfaction which refers to the logistics process. The operational performance (OP) is important to ensure that logistics companies achieve the objective and their operation is efficient and effective to the customer. There exist a few problems that caused the OP in logistic firm down such as in cases of the delays in delivery to the consumer might lead Malaysian ports to lose market share to regional competitors. Another case of delays in cargo processing has damaged Malaysia's logistics performance, with Malaysian ports losing out to regional ports due to a lack of uniformity in regulation at the Free Commercial Zones (FCZ), thus improving logistics and cargo operations is critical. Therefore, this study attempts to examine the relationship between human resources, organizational resources, relational resources, information technology, and operational performance in Logistics Service Providers (LSP). This study reviews past literature on operational performance and the effectiveness of resources in Logistics Service Providers (LSP).

Keywords: Operational Performance; Human Resources; Organizational Resources; Relational Resources; Information Technology; Logistics Service Providers

INTRODUCTION

The effectiveness of company commercial activities is driven by logistics, where logistics play a main role in the management operation of all companies. The supply chain may improve organizational competitiveness through an alliance among all supply chain actors paired with an approachable strategy. This strategy will guarantee that end consumers get good value for their money while also reducing industry uncertainty (Francis and Waiganjo 2014). According to Chavez et al. (2015), the definition of OP is the strategic features of competing organizations and includes operational level indicators like flexibility and delivery.

The operational performance (OP) is important to ensure that logistics companies achieve the objective and their operation is efficient and effective to the customer. OP applies largely to short-term objectives whose achievement is seen as leading the organization to achieve its strategic or long-term objectives. They can also be used as operational targets in a nutshell. A broad structure for strategic activities provides broadly based stakeholder corporate priorities but precise goals are needed every day. External and internal impacts include performance

targets. OP is divided into four dimensions which is quality, time, flexibility, and cost (Swink et al. 2005, and Muthemba, 2016).

To measure the OP for the logistics firm using the Logistics Performance Index (LPI), LPI helps countries identify the struggles and opportunities in their trade logistics performance, as well as what they can do to improve it (World Bank, 2020). The LPI is based on a global survey of stakeholders on the ground who offered feedback on the countries where they operate and trade in terms of logistics "friendliness." According to the World Bank Group, the timeliness, and regularity with which shipments arrive at their destination within the scheduled or expected time is a significant criterion determining a country's LPI performance. The "logistics gap" between more and less developed countries continues, according to a World Bank study, with high-income countries scoring 45 percent higher on the LPI than low-income countries.

A Logistics Service Provider (LSP) is a firm that specializes in providing its clients' diverse logistical demands and is also known as a service provider that establishes partnerships between two major supply chain participants. Furthermore, it is emphasized that LSPs play a vital role in enhancing the whole supply chain's competitiveness (Fulconis et al, 2006). In general, LSPs can increase supply chain performance (Halldorsson, Kotzab, Mikkola, and Skjøtt-Larsen, 2007) and supply chain performance, in turn, affects the competitive advantage of supply chains as a whole. Because LSPs influence the quality of their outsourced customers' operations, they play an important role in supply chains. Although, LSPs play an essential role in leveraging and developing enterprises' logistical resources and expertise (Halldórsson and Skjøtt-Larsen, 2004).

A company's practice of maintaining and training its personnel are some of the benefits that employers provide their people to serve as managers, and production workers have had a significant impact on the growth of these companies (Othman and Abdullah, 2016). HR has always been seen as the most important aspect of many types of businesses. Although international HRM is in charge of changing the company's appearance, it also manages to be a leader in terms of organizational reform. Lombardi et al. (2020) have also looked at the impact of HRM activities on organizational innovation, and whether there is a link between that and information management competency.

Meanwhile, the organizational resource is defined as components of the organizational environment, physical and psychological system levels that are not particular to the function and which impact directly or indirectly the organizational engagement of the environment, employment resources, and commitment. In general, organizational resources are system supplies and support sources that people and groups may draw from to assist in accomplishing psychological, attitudinal, motivational, behavioral, team, and organizational results (Albrecht et al, 2018). The organizational resource is system supplies and support sources that people and groups may draw from to assist in accomplishing psychological, attitudinal, motivational, behavioral, team, and organizational results (Albrecht et al, 2018).

According to Wong and Karia (2010) and Shou et al, (2017), the relational resource has gotten a lot of attention from management experts among the numerous categories of firm resources. A study by Karia et al. (2015) claimed that the firm's relational resources are its embedded relationships. These connections aid in the development of trust between the company and its partners, as well as long-term collaboration and coordination. The contribution to the firm's activities and performance is by improving the efficacy and efficiency of communication with suppliers and consumers.

While, IT in logistics allows greater management of the information flow of the chains involved, allowing them to work together and providing support to logistics information systems

(Gunasekaran and Ngai, 2003). According to Evangelista, McKinnon, and Sweeney, (2013), a high degree of IT awareness among employees indicates a greater degree of supply chain technology adoption. Employees' capacity to reconfigure IT can give organizations greater benefits from the technology they've acquired.

LITERATURE REVIEW

Resources Based-View (RBV)

The RBV is a theory for evaluating which strategic resources a firm may use to obtain a long-term competitive advantage that had been proven the effectiveness of this theory by past researchers since the 1930s. As part of the RBV, management looks to the company's internal resources for options to gain a competitive edge (Lavie, 2006). Resource-based view (RBV) theory is widely used for the control and arrangement of capital in the literature on business strategies. It takes an individual approach to the acquisition and effective utilization of an organization. RBV assesses a company's strengths and skills to achieve net positive returns, and customer loyalty and create a durable competitive edge. These resources may be tangible or intangible, including money, staff, information, IT, and equipment (Formentini and Taticchi 2016).

To serve as sources of long-term competitive advantage, resources must be valued, scarce, imperfectly imitable, and non-substitutable, according to Barney (now commonly known as VRIN criteria) (Barney, 1991). Based on the resource-based approach, companies must develop distinct, firm-specific core competencies that will enable them to stand out from the competition by doing things differently. Despite the wide array of ideas in the literature, the central idea of the resource-advantage perspective is that the firm's resources are financial, legal, human, organizational, informational, and relational; resources are heterogeneous and imperfectly mobile; and management's primary task is to understand and organize resources for long-term competitive advantage (Makadok, 2004).

Logistic Service Provider (LSP).

The usage of LSPs in supply chains has increased over the past ten years (Fabbe Costes, Jahre, and Roussat, 2009 and Liu, Grant, McKinnon, and Feng, 2010). According to the research, this is one of the reasons why manufacturing and trade organizations are shifting operations to logistics outsourcing (Lun et al, 2010). There are several examples of LSP categorization in the literature (Saglietto, 2013). The most widely utilized criteria of division are competence in logistics services. Lai (2004), categorization is an excellent example of such a divide. Based on their operational service capabilities, the author classified four main types of LSPs. LSPs may also be defined by their capacity to handle problems and adapt to the demands of their customers (Płaczek, 2012). Another factor that should be considered is the function that LSPs play in the supply chain. In this context, as Jeszka (2009) underlines, the kind of logistical collaboration is frequently used to classify LSPs.

LSPs play the role of logistics service providers, performing all or part of their clients' logistical functions (Delfmann, Alber, and Gehring, 2002). The term logistics service provider (LSP) has various synonyms, including carriers, forwarding businesses, third-party logistics providers, and logistics service companies (Fabbe Costes, Jahre, and Roussat, 2009). LSPs can provide a variety of services, including transportation, warehousing, materials management, information-related services, order administration, track-and-trace services, and value-added services (Berglund et al, 1999 and Fabbe Costes, Jahre, and Roussat, 2009).

Operational performance.

OP is defined as the strategic dimensions of competing firms, and it includes operational level indicators like flexibility and delivery (Chavez et al, 2015). Flexibility is defined as "a measure of a company's ability to adapt to market needs by moving from one product to another through a series of coordinated policies and activities" (Shou, 2018). The operational cost, which is always linked to operational efficiency, focuses on cost reduction and profit growth (Chavez et al, 2015). According to Voss et al. (2012), OP refers to measurable parts of an organization's process. Factors to examine include production efficiency and mistake rates, processing time, on-time delivery, cost of quality and scrap reduction, productivity, and inventory control.

According to Srinivasan et al. (2011), supply chain efficiency refers to the level of performance of the processes used within the firm's supply chain department. It held different organizational management practices to the test to see how they affected results. Economic performance was enhanced as a result of improved organizational performance, waste reduction, and a commitment to quality growth. It was discovered that lean programmed had a positive impact on an organization's organizational efficiency). Effective inventory management may assist businesses in reducing stock levels and associated inventory costs. As a consequence, items may be delivered to clients in a shorter amount of time, resulting in more advantages (Prajogo, 2018).

Human resources and IT.

HR recognizes the importance of the human element at work and its contribution to an organization's success (Noe et al, 2007; Bush and Middlewood, 2013; Torrington et al, 2020). HRM is an important part of an organization's administration because it encompasses key personnel activities and functions that ensure that the organization's human talent contributes effectively and efficiently to the creation and achievement of the corporate vision, strategy, and objectives.

H₁: There is a positive relationship between HR on information technology in LSP.

Organizational resources and IT.

While process and production technologies have progressed rapidly, information management systems and allied technology have had a greater impact on job design and skill requirements. Organizations are continuously upgrading their technology to improve efficiency, and they confess it is tough to stay up with technological advancements. At every level of an organization's management, information technology plays a critical role. Information technologies aid in the establishment of a transparent organizational structure by improving organizational flexibility.

H₂: There is a positive relationship between organizational resource on information technology in LSP.

Relational resource and IT

Working together to achieve a common goal can help two parties enhance their relationship (Zhuang and Tsang, 2010; Zhou et al. 2015). Due to improved communication and coordination abilities, the two parties will accurately and effectively understand each other's requirements and intentions in collaborative planning (supported by IT resource). As a consequence, future rewards and punishments for the two parties will be clearer and more exact than previously (Joshi and Campbell, 2003), giving both parties future certainty and aiding them in establishing mutual trust, intimacy, and commitment. As a result, there would be less opportunistic behavior.

If they come into problems or disagreements while cooperating, however, effective collaborative problem-solving (aided by IT resource) is the key to resolving them.

H₃: There is a positive relationship between relational resource on information technology in LSP.

Human resources and OP

In the logistics chain, well-organized HRM helps companies to obtain a competitive edge, increase productivity and market share, decrease costs, and increase profit. HRM practices and organizational and market success has been linked in relevant studies from throughout the world (Harel and Tzafir, 1999; Islam and Siengthai, 2010). Thriving businesses exhibit innovation, efficiency, and a flexible structure, as well as a need for new skills in their organizations and HR.

H₄: There is a positive relationship between HR on OP in the LSP.

Organizational resource and OP

According to Adebayo (2012), logistics management practices are a collection of activities carried out by an organization to improve effective logistics management. Logistics managers are in charge of developing and implementing strategies that can lead to a long-term competitive advantage if properly implemented. Logistics is the transfer of resources from a source to a point of sale to satisfy the needs of customers or businesses. Food, material, animals, equipment and liquids can all be utilized as logistical resources, as can abstract notions such as time and knowledge. Organizational practices are more crucial than low-cost goods to achieve customer satisfaction.

H₅: There is a positive relationship between organizational resource on OP in LSP

Relational resource and OP

The RBV and the relational resource viewpoint were used to provide light on the setting that fosters the development of relational competence and its link to performance. the organizational environment impacts the firm's capacity to absorb and utilize the information included in external exchanges, which influences the firm's ability to exploit such processes as producers of intangible assets, notably knowledge (Szulanski, 1996).

H₆: There is a positive relationship between relational resource on OP in the LSP.

Information Technology and OP.

Any commercial business activity in which logistics enterprises can communicate electronically with other parties without a direct or physical connection or physical exchange process, as well as information, performing processes, such as the exchange of goods and services between two or more parties using electronic instruments and methods. E-business is a management technology that assists logistics organizations in managing their HR, material resources, and financial resources.

H₇: There is a positive relationship between information technologies on OP in LSP.

Human resources, IT and operational performance in LSP.

The function of HR management, or HRM, has been widely researched in empirical studies concentrating on a variety of topics, including job satisfaction (Brown et al. 2008); employee performance (Ayca, 2001; Hassan, 2016), employees turnover. However, researchers who were interested in determining the impact of HRM on the performance of the organization

assumed that HRM practices are a process of recruiting, motivating, and keeping personnel to ensure the organization's survival. Following present research, there happens an excellent connection between the middle two points HRM practices and operational conduct and accessibility of information in visible form to observe instance Punnakitikashem (2014), Jensen et al. (2013), Tregaskis et al. (2013).

HRM combines into a collection outcome, to a degree labor productivity, change, and person being paid for working for another or a corporation satisfaction, influence enhancing within organizational depiction, to degree productivity and feature, and these improvements, in proper sequence, favorably influence firm having to do with money performance (Boselie et al. 2005). Financial accomplishment is compared with output and quality (Cooke, 2018; Crook et al. 2011). HR has always been seen as the most important aspect of many types of businesses. Although international HRM is in charge of changing the company's appearance, it also manages to be a leader in terms of organizational reform. In terms of efficiency, a company's practice of maintaining and training its personnel are some of the benefits that employers provide their people to serve as managers, and production workers have had a significant impact on the growth of these companies (Othman and Abdullah, 2016). There is a positive relationship between HR and information technology on OP in LSP.

H₈: There is a positive relationship between HR and information technology on OP in LSP.

Organizational resource and operation performance in LSP.

By focusing on organizational resources, the RBV acts as the main catalyst for firms to improve their OP and generate a competitive advantage. In addition, the RBV looks for a distinctive resource that provides a company with a competitive advantage (Hsu and Pereira, 2008). According to Pearce and Robinson (2013), RBV analyses and categorizes a company's strategic advantages based on its capabilities, talents, assets, and intangible assets. The core concept of RBV theory is that each business has a "unique" bundle of resources both real and intangible assets that the organizational capabilities then exploit (Pearce and Robinson, 2013). The organization's resources and competencies allow it to gain a competitive edge (Pesic, 2007).

The organizational resource is defined as components of the organizational environment, physical and psychological system levels that are not particular to the function and which impact directly or indirectly the organizational engagement of the environment, employment resources, and commitment. In general, organizational resources are system supplies and support sources that people and groups may draw from to assist in accomplishing psychological, attitudinal, motivational, behavioral, team, and organizational results (Albrecht et al, 2018). OP is a key indicator of whether a company will succeed or fail. Performance is measured quantitatively and qualitatively, and it is attained via the efforts of individuals and departments (Zehir et al. 2016). Furthermore, an organization's success is determined by its performance, or how successfully it fulfills its goals (Randeree and Al Youha, 2009). There is a positive relationship between organizational resource and information technology on OP in LSP.

H₉: There is a positive relationship between organizational resource and information technology on OP in LSP.

Relational resources and operational performance in LSP.

According to Wong and Karia (2010) and Shou et al, (2017), the relational resource has gotten a lot of attention from management experts among the numerous categories of firm resources. The relational resource was defined by Wong and Karia (2010) as the firm's ability to establish and sustain solid cooperative connections with its partners. The term "social capital" was used by Moore et al. (2007) to define the relational resource. A study by Karia et al. (2015) claimed

that the firm's relational resource are its embedded relationships. These connections aid in the development of trust between the company and its partners, as well as long-term collaboration and coordination.

They contribute to the firm's activities and performance by improving the efficacy and efficiency of communication with suppliers and consumers. According to Ogunmokun and Li (2001) underlined the influence of relational resource on a firm's export performance by focusing on relationships engaged in marketing operations and according to Story et al. (2009), relational resource, like the firm's interactions, connections, and networks with its partners, contribute to the firm's marketing skills in product creation and assist with product development. Therefore, the study suggests that relational resources have a positive relationship with IT on OP in LSP.

H₁₀: There is a positive relationship between relational resource and information technology on OP in LSP.

Role of Information technology as a mediator factor.

Bharadwaj (2000) defines IT capacity as the ability to organize and deploy IT-based resources with other resources and capabilities. Logistics management includes tasks such as customer service, order processing, inventory management, transportation, distribution, warehouse management, packaging, demand estimation, production planning, location selection, purchasing, and procurement. With the ongoing development of these technologies and their rising application in global business, the performance impacts of IT investment remain a hot subject (Sabherwal and Jeyaraj 2015; Chaysin et al, 2016). These processes take place both within a firm and throughout the supply chain. IT in logistics allows greater management of the information flow of the chains involved, allowing them to work together and providing support to logistics information systems (Gunasekaran and Ngai, 2003).

"Logistics information systems function as connections that connect the logistics activities in an integrated process, integrating hardware and software to measure, monitor, and control logistics operations," according to Fleury et al. (2000). IT capability is one of the most important variables in supply chain management and plays a crucial role in improving supply chain performance. The success of the supply chain is inextricably linked to IT competence (Zhang and Wang, 2011). According to Evangelista, McKinnon, and Sweeney, (2013), a high degree of IT awareness among employees indicates a greater degree of supply chain technology adoption. Employees' capacity to reconfigure IT can give organizations greater benefits from the technology they've acquired (Moin et al. 2013). The most often utilized information technology applications in highway transportation operations are vehicle tracking systems and driver tracking systems.

Research Framework.

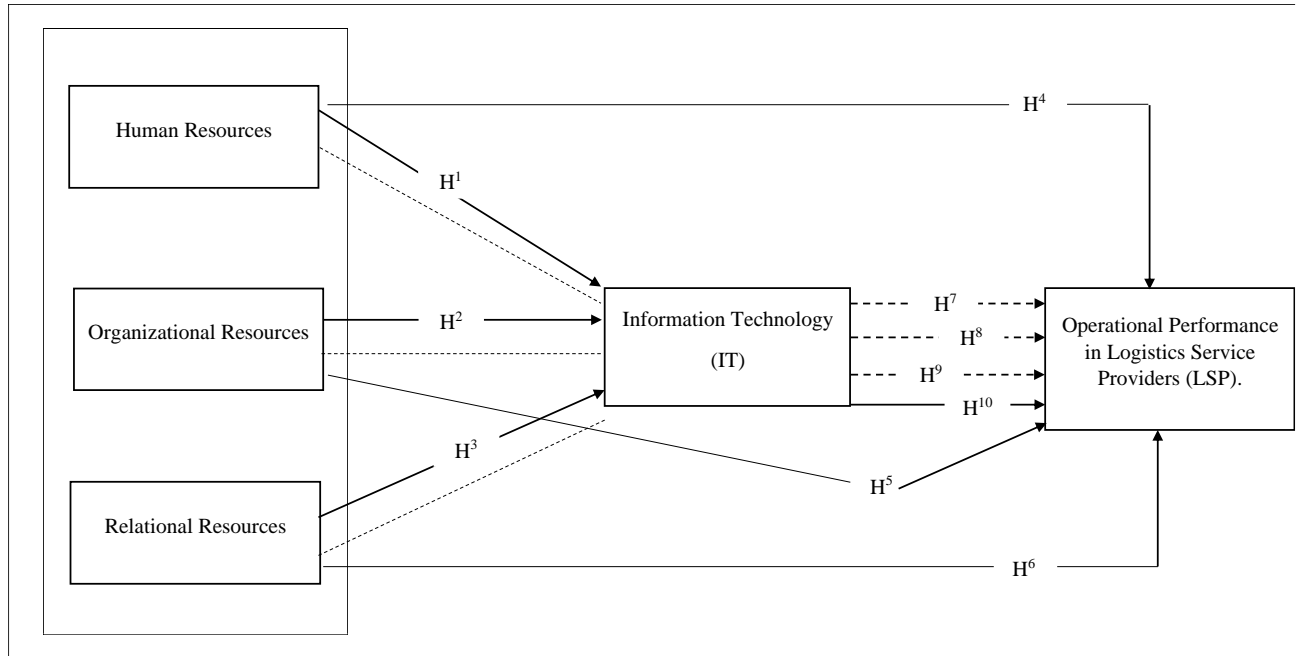


Figure1: Research Framework

Based on Figure 1, the resources including human resources, organizational resources, and relational resources influence operational performance in LSP, information technology acts as mediating variable.

CONCLUSIONS

In conclusion, there are ambiguous findings from the past studies that the operational performance is supported by resources of human resources, organizational resources, relational resources, and information technology as mediate for the LSP. First, the resource of the operational performance is human resources and from past studies was found that human resources positively influence the operational performance with the human resource practices, and organizational and market success has been linked in relevant studies from throughout the world (Islam and Siengthai, 2010). The second resource, organizational resources also influence operational performance to measure whether the company will succeed or fail (Albrecht et al, 2018). Thus, the effectiveness of an organization in achieving its desired goals is referred to as OP (Henri, 2004). Third resources are relational resources refer to the firm relationship for the connection in the development of trust between the company and its partners and these factors also influence the firm competitive advantage and directly affect the operational performance (Karia et.al 2015). The relational resource has a major influence on a firm and has gotten a lot of attention from management experts among the numerous categories of firm resources Wong and Karia (2010) and Shou et al, (2017). Information technology act as mediating variable because the role of IT most influences operational performance. To manage supply chains, effective information flows inside and between organizations are required (Tatoglu et al. 2016). IT capability is also one of the most important variables in supply chain management and plays

a crucial role in improving supply chain performance (Zhang and Wang, 2011). As a result, all the resources and mediates influence the operational performance of Logistics Service Providers.

ACKNOWLEDGEMENTS

I would to express my deepest appreciation to my supervisors, Associate Professor Dr. Zuraimi Abdul Aziz and Dr. Hazriah Hassan for their continuous support and valuable suggestions throughout my period of study.

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Research on the Optimization of Fresh Agricultural Product Cold Chain Logistics Delivery Path

Zheng Qingbo¹
Zuraimi Bin Abdul Aziz²
Mohd Fathi Bin Abu Yaziz³
Rosmaizura Binti Mohd Zain⁴

¹Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia
Correspondence email: kingbo@g-linklogistics.com

ABSTRACT

Due to the improvement of the economic level, people's living quality is getting higher and higher. Fresh agricultural products are part of our lives and closely related to each other. However, the cold chain logistics system in China is not yet mature. Fresh agricultural products deteriorate, causing severe waste. In order to improve this phenomenon, the cold chain logistics distribution path of fresh agricultural products should be optimized, the efficiency of cold chain logistics should be improved, and the delivery cost of fresh agricultural products should be reduced to meet people's demand for fresh agricultural products. This article analyzes the problems in the cold chain logistics distribution of fresh agricultural products and explores the optimization strategy of the supply chain logistics path of fresh agricultural products.

Keywords: Fresh Agricultural Products; Cold Chain Logistics; Delivery Path.

INTRODUCTION

With the development of the economy and the improvement of people's living standards, society's attention to fresh food is increasing, and the requirements for cold chain logistics are getting higher and higher. Fresh agricultural products maintain their freshness, color, flavor, and nutrition to the greatest extent through low-temperature circulation. Cold Chain Logistics Delivery Center is a flow center of information, products, funds, etc., which is essential for the operation of the entire supply chain (Zhang *et al.*, 2021). The cold chain distribution center is generally close to the origin, which is conducive to classifying, storing, processing, packaging, and freezing fresh agricultural products. However, compared with developed countries, China's cold chain logistics start late and are not mature in terms of technology. The delivery cost of fresh agricultural products is high, and the corresponding fresh-keeping equipment is not perfect. Once the food is deteriorated or rotten, it will affect the surrounding environment.

OVERVIEW OF FRESH AGRICULTURAL PRODUCTS

Concept

Cold chain logistics has not been uniformly defined in the logistics industry. Generally speaking, cold chain logistics refers to the appropriate temperature and humidity from production to the end of consumers. During the transportation process, the logistics business is fully preserved and minimizes the loss of goods. The cold chain logistics of fresh agricultural products is essential to the entire cold chain logistics system. Agricultural products must be kept fresh and

safe in various aspects such as production, processing, and distribution, and each link must be effectively connected. These links together constitute the supply chain of agricultural products, but the cold chain supply chain is not independent and needs to be effectively combined with other supply chains, such as storage, processing, sales, etc. These together constitute a complete cold chain logistics network (Dong *et al.*, 2020).

Features

Fresh agricultural products have high requirements for transportation conditions and time during circulation. Compared with ordinary logistics, the cold chain logistics of fresh agricultural products have the following characteristics.

Cold chain delivery requires high timeliness

The life cycle of fresh food is short. Due to the length of the transportation time during the transportation process, the quality of food is reduced, and people cannot distinguish it from the surface when purchasing. However, from another perspective, for fresh food with a shorter life cycle, if the transportation time increases, although the quality does not reach the point where it is unavailable, the probability of being sold of these products will be reduced, and sales will decrease. Although this part is the loss of the seller, the loss of sales due to the delay of the transportation time should be borne by the logistics distributor. Therefore, to reach a higher level of service, fresh food sellers often have time window restrictions when the goods reach the sales terminal (Liu *et al.*, 2018). Restrictions must be delivered within the agreed period in advance. Therefore, planning the distribution route can not only reduce the operating costs of the transportation enterprise but also improve the seller's service level and meet the customers' needs.

The characteristics of easy rotten for fresh agricultural products

Fresh agricultural products are easy-to-rot foods. During the transportation process, the goods' quality will gradually decrease for various reasons. The lower temperature for fresh food stored during the distribution process, the longer the quality can be maintained. In changing the quality of fresh food over time, "temperature" is the most important factor affecting its quality. From production to consumption, frozen foods have been manufactured, refrigerated, and transported by the factory, when the temperature at all stages is different. If the relationship between the time that may be maintained with the food quality and the refrigerated temperature can be quantified, it will be pretty convenient in the actual operation. The impact of the United States with a considerable amount of frozen foods is aimed at a variety of foods. The impact of investigating the temperature and the time passed on the food quality is "The quality under the change of time-temperature." In actual operation, the quality of frozen foods can be calculated in a simple formula (Guo *et al.*, 2019).

High requirements for transportation technology

In the cold chain logistics system, in order to ensure that fresh agricultural products are always in a suitable temperature and humidity, it is necessary to use GPS and other technologies to track and monitor the transportation environment of fresh agricultural products time by time, control cargo damage as much as possible, reduce distribution risks, and improve Delivery efficiency (Weng *et al.*, 2019). In this way, it provides consumers with fresh agricultural products and better service, thereby improving customer satisfaction.

High requirements for organizational coordination ability

In the cold chain logistics distribution of fresh agricultural products, in addition to the timeliness of distribution, attention should also be paid to distribution organizations' organization and

coordination capabilities. In the specific distribution process, the distribution vehicle and product distribution are often delayed. If the coordination and management ability of the distribution company is not strong, failure to communicate with customers in a timely manner will lead to deterioration or rot of agricultural products, resulting in economic losses (Guo *et al.*, 2019).

EXPLORATION OF PROBLEMS EXISTING IN THE CURRENT COLD CHAIN LOGISTICS

Macro level

For the cold chain logistics at the macro level, in general, the current and existing logistics problems are analyzed, and the countermeasures to solve these problems are found through research. According to the current research situation of the cold chain in China, it is still in the initial stage of development, and its specific problems are as follows.

The implementation standard is not clear

At this stage, the implementation standards of foreign cold chain logistics systems are clear and unified, which can effectively ensure the refrigeration rate of food. However, the adaptability of China's cold chain logistics implementation standards is currently weak, and unified standards have not restricted it. Some enterprises seek personal gain, which leads to hidden dangers to food safety (Jin *et al.*, 2017).

Slow development of infrastructure and backward technology

China's cold storage facilities were established between the 1980s and 1990s, with large investments and a high cost of capital. Due to time and space constraints, the buildings can no longer meet the current cold chain needs. Meanwhile, they are affected by external factors such as road, water transportation, and railways. The lack of technical connection in various transportation has seriously affected food temperature. In addition, temperature control technology can not provide a specific temperature for food (Gao *et al.*, 2021).

Cold chain logistics informatization construction is relatively backward

Cold chain logistics is mainly about temperature control, which is implemented under scientific and advanced information technology. The industrial management of electronic analog information technology ensures that the goods can be tracked time by time, and the information is networked under dynamic monitoring to ensure that the logistics information can be delivered in a timely manner (Liu *et al.*, 2018).

Micro level

Chinese scholars have studied the agricultural products in cold chain logistics and found that in developed countries, the cold chain logistics of agricultural products have a higher refrigeration rate and a complete system. However, in the development process of China's cold chain logistics, the government's quality of agricultural products is at this stage. Specifically, current China's logistics network is relatively scattered (Minard *et al.*, 2019). Affected by factors such as technology and equipment, there are many problems in the cold chain logistics and distribution of fresh agricultural products, which not only increases the cost of logistics and distribution but also affects the speed of logistics and distribution. First, the cold chain logistics distribution network is relatively scattered. China is a big agricultural country. Many fresh agricultural products come from rural areas. Most fresh agricultural products must be transported to cities and towns for sale (Parashar *et al.*, 2019). In production and sales, many fresh agricultural products are distributed to various regions through intermediaries. Fresh agricultural products have seasonal characteristics, from production to sales, which requires the logistics network's support. Secondly, the cost of logistics and distribution is high. In the process of circulation of

fresh agricultural products, a lot of manpower, material resources, and financial resources need to be invested. The cold chain transportation cost of fresh agricultural products is much higher than that of normal temperature transportation, which seriously hinders the development of the cold chain logistics industry. Again, there are certain risks in logistics and distribution. The most important thing about fresh agricultural products is their freshness, and the timeliness of distribution is very demanding (Miao *et al.*, 2009). In the cold chain logistics system, distribution is an important link to ensure the safety and freshness of fresh agricultural products. However, problems such as vehicle failures often occur during the transportation process. Therefore, fresh agricultural products' cold chain transportation routes should be planned. To ensure that agricultural products can be delivered to the destination on time.

OPTIMIZATION STRATEGY OF COLD CHAIN LOGISTICS DISTRIBUTION PATH OF FRESH AGRICULTURAL PRODUCTS

In order to effectively solve the current problems in the cold chain logistics and distribution of fresh agricultural products, it is necessary to learn from the logistics and distribution experience of developed countries, actively optimize the distribution path, and ensure the smooth development of cold chain logistics and distribution.

Make full use of information technology to build a network information platform for cold chain distribution

The particularity of fresh agricultural products determines the importance of their distribution link. The optimization of the distribution path of the cold chain logistics of fresh agricultural products is to effectively avoid the deterioration and decay of agricultural products and reduce economic losses. Logistics distribution is an essential part of the cold chain system, which has higher requirements for the timeliness of distribution and preservation. In the information age, in order to optimize the cold chain logistics transportation system, it is necessary to make full use of advanced information technology, effectively connect all aspects of logistics distribution, monitor the status of logistics distribution time by time, and realize intelligent management of logistics distribution (Li *et al.*, 2019). Through the construction of a corresponding network information platform, the collection, sorting, and feedback of logistics information can be integrated and managed, the transportation status of fresh agricultural products can be grasped time by time, and the safety and preservation of fresh agricultural products can be improved. In implementing distribution management, using big data and other technologies to automate logistics and transportation management improves the distribution management level. One-stop cold chain logistics distribution includes the whole process from production to sales of agricultural products. By applying information technology to manage the entire service process intelligently, it can avoid the disadvantages of traditional logistics and distribution and is in line with the optimization of cold chain logistics distribution paths for fresh agricultural products.

Increase the implementation of relevant policies to improve the development of cold chain logistics

Currently, China's cold chain logistics network is not perfect, and the government needs to increase financial investment, play a role in policy guidance, and provide a good environment for the development of cold chain logistics. First, the government should give full play to the macro-guidance role, attach importance to the construction of the cold chain logistics system, and make scientific plans according to the actual situation to make logistics and transportation management more standardized. Secondly, it is necessary to increase the implementation of policies related to cold chain logistics, which can formulate and improve relevant regulations. When optimizing the cold chain logistics distribution path of fresh agricultural products, it is necessary to improve the operation and distribution efficiency to make the circulation of fresh

agricultural products smoother and effectively reduce transportation costs. Again, increase the research and development of related technologies. The government should encourage relevant institutions to research and develop cold chain logistics technology and, at the same time, increase financial investment according to the local development situation and attach importance to infrastructure construction. Actively introduce and cultivate technical talents, cultivate their sense of innovation, and reserve high-quality technical talents for the development of the cold chain logistics industry (Zhao *et al.*, 2019).

Optimize the supply chain of fresh agricultural products and establish large distribution centers

In order to optimize the distribution path of cold chain logistics of fresh agricultural products, it is necessary to establish a large-scale cold chain logistics distribution center to further improve the efficiency of logistics distribution by optimizing the supply chain of agricultural products. The large-scale distribution center needs strong organizational capabilities to provide storage and distribution services of agricultural products, etc. It can strengthen the connection between suppliers and customers and improve distribution efficiency by controlling logistics and costs. When building a distribution center, it is first necessary to clarify the supply and demand of agricultural products. Fresh agricultural products are unique and seasonal, and the demand for fresh products is constantly changing. In response to this situation, the cold chain logistics distribution center should adopt the correct sales strategy according to the market demand. It can improve the fresh-keeping ability and storage ability and facilitate the agricultural products to maintain a certain balance in different seasons. Therefore, the prices of agricultural products in the market tend to be stable and effective in protecting the rights and interests of farmers. Secondly, it is necessary to effectively connect production and circulation to reduce the loss of agricultural products. Fresh agricultural products' production and circulation process has very high technical requirements and is prone to lose, resulting in certain losses. In order to solve this problem, the distribution center should optimize the refrigerated supply chain, carry out refrigerated processing in each link, minimize the loss of agricultural products, and ensure the safety and preservation of fresh agricultural products. Again, to strengthen the unity of logistics and distribution. Traditional supermarkets have problems such as small batches and incomplete varieties of agricultural products. The cold chain logistics distribution center can effectively make up for this defect. Purchasing fresh agricultural products in large quantities will be uniformly inspected and stored, distributed, and optimized according to the specific needs of the supermarket to optimize the fresh agricultural products logistics distribution path (Chen, Liao, and Yu, 2021).

Strengthen the union of organizations related to fresh agricultural products and establish a joint distribution alliance

With expanding the wholesale market of agricultural products, the wholesale market and distributors should be united to form a joint distribution alliance and build a comprehensive cold chain logistics system when optimizing the distribution path. The agricultural product wholesale market should give full play to its advantages, integrate the surrounding logistics resources, and carry out unified distribution of agricultural products (Weng *et al.*, 2019). Establishing a joint distribution alliance can optimize the supply chain, improve the service level of cold chain logistics, alleviate transportation problems and improve logistics distribution efficiency.

CONCLUSIONS

With the continuous increase in income, people's quality requirements for fresh agricultural products have continued to improve. In order to better meet people's needs, effective strategies must be adopted to optimize the cold chain logistics distribution path of fresh agricultural

products. First of all, when optimizing the delivery path, it can make full use of information technology to build the network information platform of the cold chain distribution. Secondly, it is necessary to increase the implementation of relevant policies to provide a suitable environment for developing cold chain logistics. In addition, to optimize the supply chain of fresh agricultural products and build a large distribution center. Finally, strengthen the union of fresh agricultural products-related organizations to form common distribution Alliances, etc., and promote the long-term and stable development of China's cold chain logistics industry.

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Customer Mobile Financial Service (Mfs) Using Intention: In Digital Bangladesh Perspective

Abeda Sultana¹

Mohd Nazri Muhayiddin²

Ahmad Shaharuddin Abdul Latiff³

¹Faculty of Entrepreneurship and Business, University Malaysia Kelantan, Malaysia
Correspondence email: abeda.a17e005f@siswa.umk.edu.my

ABSTRACT

Mobile, one of the most widely used modern telecommunication device, has become a part and parcel of mass people's life in Bangladesh. The growth of subscriber is reaching over 130 millions proving that it is one of the vital tools to reach mass people easily and conveniently. Bangladesh being a rising economy needed technological tools to establish the concept of digital Bangladesh, that's open up the opportunity to serve and empower mass population by setting up the mobile financial services with financial inclusion incorporated with mobile technologies, internet and integration of banks in the system. The study shows that mobile financial service is an important means to empower all sectors people with the help of mobile network providers and banks but it has challenges to face, despite this challenges, Bangladesh government and other stakeholders must take necessary steps to monitor and to accelerate the grab of this opportunity to conceptualize the digital Bangladesh concept and thereby boost up our national socio-economic development.

Keyterms: Mobile Financial Services; Digital Bangladesh; Mobile Money

INTRODUCTION

Digital Bangladesh encapsulates the current idea of effective and efficient use of technology in terms of delivering on promises in terms of job placement, education, health, poverty reduction, and empowering both rural and urban populations. The "Digital Bangladesh" ideology entails guaranteeing people's democracy and accountability, as well as establishing justice, human rights, transparency, and assuring the delivery of government services to Bangladesh's population, all with the goal of improving the general public's living standards. This involves involvement by people of all socioeconomic groups, without prejudice or other technological risks. The current administration has also placed emphasis on the four aspects of the "Digital Bangladesh Vision," which include human resource development, citizen participation, public services, and the use of information technology in industry, trade, and commerce (Lee, Morduch, Ravindran, Shonchoy, and Zaman, 2021).

It has been observed that in order to establish the concept "Digital Bangladesh" financial transaction and financial empowerment to the mass people is one of the key issues. Researchers Singh, Nayyar, Le, and Das, (2019) pointed mobile phone is one of the much-distributed technological innovations which is widely accepted and used by the both rural and urban people which are one of the major financial service providers. According to Rehman, Omar, Zabri, and Lohana, (2019) banks are more efficient when utilizing the mobile financial

services in modern digitized world. Therefore, banks of Bangladesh are playing vital role in providing mobile financial services for gearing up digital Bangladesh concept.

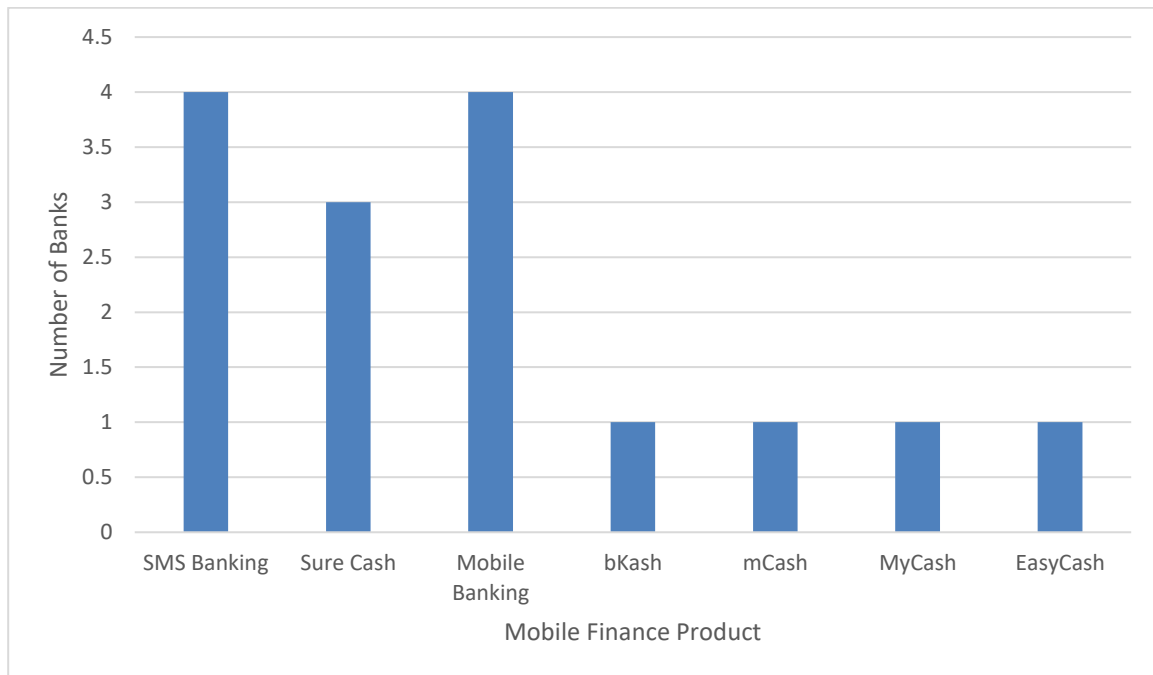
METHODOLOGY

This research is based on descriptive approach. The fundamental discussion on a descriptive method is to show the wide use and opportunities of financial services through mobile phone by banks and thus an effective tool for digital Bangladesh theme. For this, the researcher did qualitative analysis only.

Data were collected from different secondary sources including sixteen major mobile financial service-providing banks of Bangladesh. For further analysis, data often shared, represented and discussed from different web sites relating to mobile financial service, books and journals to understand and interprets the significance of MFS and digitalization. Information also represented form Bangladesh bank guideline regarding the mobile financial services.

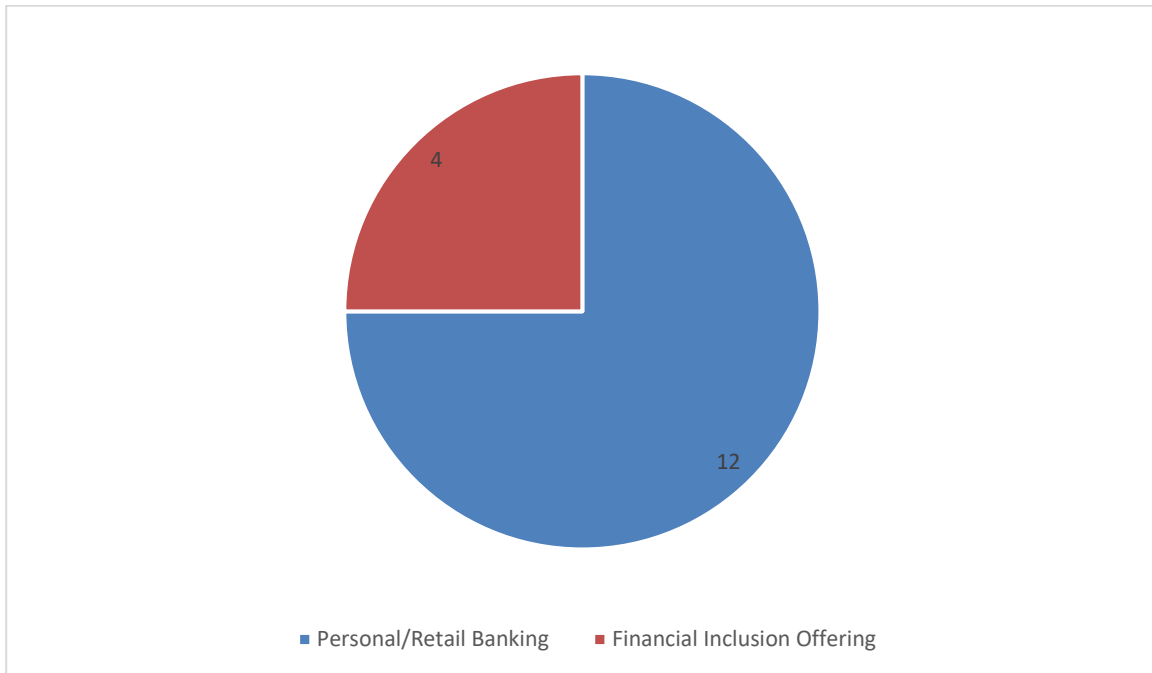
RESULTS AND DISCUSSIONS

Digital Bangladesh is a phase of change and shaping a new dimension into a modern country. Any change needs positive persuasion and participants by the stakeholders (Lee, et al., 2021). The digital or electronic revolution has the potential to reduce the gap in citizen service quality between developed and developing nations, while also ensuring better government accountability, transparency, and efficiency in the future. Kabir, Huda, and Faruq, (2020) stated that in recent years, Bangladesh has taken significant steps to advance in the field of eGovernment, beginning with a few scattered projects for internal automation and gradually moving toward e-services delivery and connected governance across the country. Nonetheless, like poor countries, the government has encountered certain common and common difficulties, many of which continue to be hurdles to e-Government adoption in such settings. Every imaginable activity, from tax collection to bank administration, complicated scientific and technological challenges, may benefit from the use of IT and MFS (Salim, 2020). From the data collected, all the 16 banks had at least implemented one mobile finance product. The figure below illustrates some of the mobile finance products that have been implemented



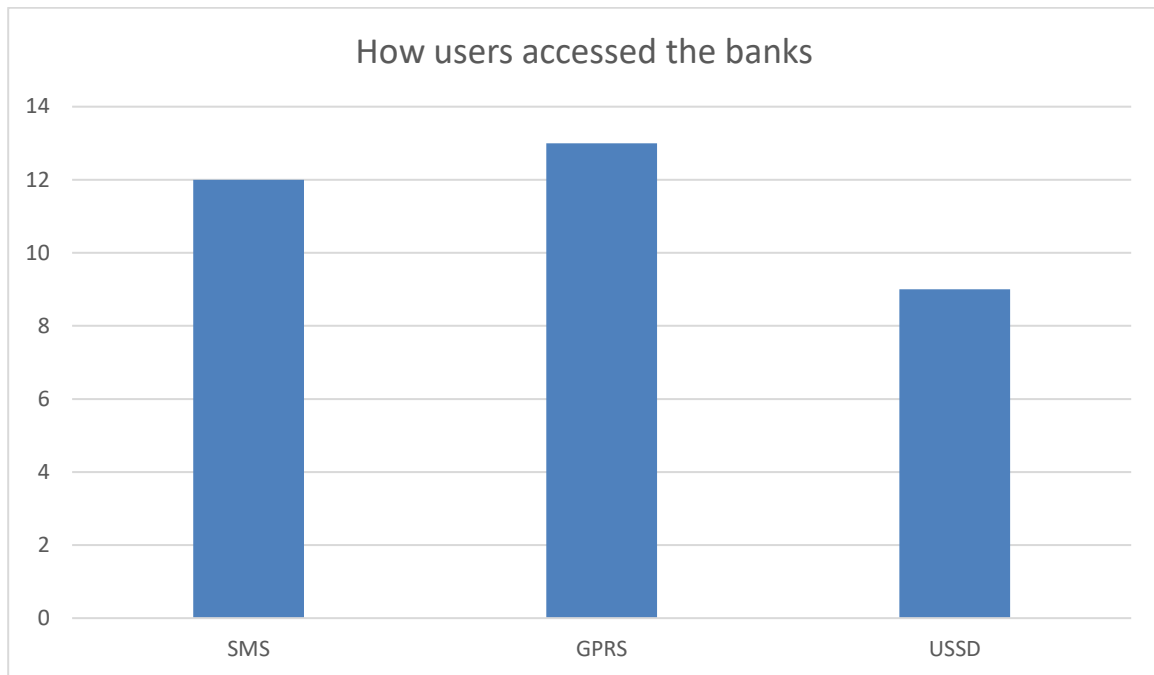
The overarching primary pledge in the election platform of the Awami League (Bangladesh Awami League) headed by Grand Alliance, which currently comprises the greatest part of this government's commitment, was the notion of "Digital Bangladesh." ICT must play a critical role in Digital Bangladesh in order to alleviate the nation's battle for economic, cultural, and social independence and empowerment. This approach has the potential to be extremely beneficial to the poor, who make up the vast bulk of the population. 'Digital Bangladesh' is, in many ways, a resurrection of the 'Sonar Bangla' ideal of a golden Bangladesh. From that perspective, it's better to retain it as a broad goal rather than a specific aim. As a result, ICTs and new technologies must be utilized in all sectors of national growth in order to attain that goal.

The use of a mobile phone to settle financial transactions is known as mobile banking. It allows person-to-person transfers with instant cash availability for the beneficiary; mobile payments leverage the card infrastructure for payment instructions movement as well as secure SMS messaging for beneficiary receipt confirmation. Mobile banking is designed for small-value transactions when speed of completion is critical. Given Bangladesh's minimal infrastructure needs and fast rising mobile phone adoption, mobile payment has a lot of promise. Account inquiry, money transfer, phone recharge, password changes, and bill payment are among the services covered by this product, which are only provided by a few institutions (Zalloum, Alghadeer, and Nusairat, 2019). The figure below shows the two distinct products offered by banks in the field of mobile banking.



In its most basic form, mobile banking refers to the use of a mobile phone to provide banking services. In the field of mobile banking, banks have developed two distinct products. One is a personal/retail banking product, while the other is a financial inclusion offering. It is a personal banking product that is available to all savings/current account holders and allows them to bank whenever and wherever they choose (Carranza, Díaz, Sánchez-Camacho, and Martín-Consuegra, 2021). Foreign and commercial banks were the first to introduce mobile banking, followed by public sector banks.

The study also sought to find out how users accessed the banks. The findings are in the figure below.



According to Shi (2009), mobile banking services have been widely implemented and are widely used. SMS (Short Message Service), GPRS (General Packet Radio Service), and USSD (Unstructured Supplementary Service Data) are the most common ways to access mobile banking services.

According to Chawla, and Joshi, (2019), the transition from traditional branch banking to electronic banking, as well as the newly developed wireless delivery channel, is inextricably linked to the spread and use of mobile banking services. The rationale for utilizing mobile banking to achieve financial inclusion is that the majority of Bangladeshis do not have access to banking services even 45 years after independence. The expansion of Bangladesh's economy must result in increased income and empowerment for the whole people, regardless of region or sector. (Kabir, et al., 2020). According to Islam, (2020), achieving the Digital Bangladesh Vision through e-Government requires the poor and vulnerable groups to have access to money, which is important for poverty reduction and social cohesion. Providing low-income and disadvantaged groups of society with access to money is a kind of empowerment. Credit, savings, insurance, payments, and remittance services are among the numerous financial services available.

The substantial rise in mobile users demonstrates the promise of mobile banking and the future of financial services delivered via the internet and mobile networks. The majority of low-income groups are hesitant to open bank accounts, partly due to the lack of a nearby bank branch (Islam, 2020), which means spending money on transportation (especially in rural areas) and losing a day's wages, and partly due to bank branch formalities or approaches intimidating them. Because of illiteracy, gender, age, low and irregular income, and regulatory variables such as identification documents, non-availability of bank branches, the poor are unable to obtain banking services (Zalloum, et al., 2019). The expense of providing these services is also highlighted as a key obstacle to expanding adequate financial services to the poor. Using a traditional retail banking method to serve the poor with low-value services is not feasible.

The central bank of Bangladesh published instructions on "Mobile Financial Services for Banks," plainly emphasizing that the market should be dominated by banks. The central bank, on the other hand, has pushed for cell carriers and microfinance institutions to be active participants (Aziz, and Naima, 2021). It has given banks ten licenses to deliver a full range of mobile banking services.

The market has moved as a result of the legislative changes, and by late 2020 and early 2021, two early leaders with the largest client bases and agent networks had emerged.

- I. BRAC Bank, in collaboration with its subsidiary bKash, provides the bKash service.
 - II. The Dutch Bangla Bank has launched a new service called Dutch Bangla Mobile.
- These two companies contributed the most to the almost 500,000 new mobile accounts and over 9,000 new agents.
- a. The Bangladesh Bank may authorize (in broad categories) the following Mobile Financial Services:
 - b. Incoming foreign remittances are disbursed.
 - c. Agents/Bank branches/ ATMs/Mobile Operator's outlets are all places where you may cash in or out using your mobile account.
 - d. Payments from individuals to businesses, such as utility bill payments and merchant payments
 - e. Payments between businesses and individuals, e.g. Payroll, dividend and return warrant payments, vendor payments, and so on.
 - f. Payments by the government to individuals, such as elderly allowances. Allowances, subsidies, and other benefits for freedom fighters
 - g. Payments made by a person to the government, such as taxes and levy payments.
 - h. Payments from one person to another (One registered mobile Account to another registered mobile account)
 - i. Other payments, such as microfinance, overdraft, insurance premiums, DPS, and so on.

Table 1: Banks providing financial service through mobile banking system

Bank Name	Product Name
AB Bank	SMS Banking
Bangladesh Commerce Bank	SureCash
Bank Asia Limited.	Mobile Banking
BRAC Bank Limited.	bKash
Dhaka Bank	SMS Banking
Duch-Bangla Bank Limited.	Mobile-Banking
First Security Islami Bank	SureCash
IFIC Bank Limited	IFIC Mobile Banking
Islami Bank Bangladesh Limited.	mCash
Mercantile Bank	MYCash
National Credit and Commerce Bank Limited	SureCash
Prime Bank Limited.	EasyCash
South East Bank	SMS Banking

Trust Bank	Mobile Money
United Commerce Bank	SMS Banking

Source: Different websites of respective bank and their annual report (2020)

CONCLUSION

Digital Bangladesh is a broad theme and its implementation will greatly influence through the establishment of mobile financial services. Kumar, Dhingra, Batra, and Purohit, (2020) analysed that the develop countries like Japan, Germany and New Zealand included banking services through mobile financial services for better effective and efficient service delivery. The more the inclusion of electronic and mobile banking gain success the more it will be easier to reach the dream of Digital Bangladesh. The days are ahead it is our expectation, when Bangladesh will be fully digitalized with the proper implementation of mobile services in financial and non-financial sectors throughout the country. Some of banks in Bangladesh who have received permission from Bangladesh Bank for MFS provider are still undecided about when and which strategies they will launch their service due to the cost factor. To establish the Digital Bangladesh concept country wide with affordable cost, the possible solution for banks who are attracted to come into the MFS space is to form an association and have one specific bank providing fully managed service to ease the investment cost by the partner banks. This would allow other banks to focus on only business aspects and operational innovations.

Recent significant growth in mobile and internet usage as well as banks involvement in customized mobile services towards its clients' shows a promising start towards the glory , yet to reach global recognition and competitiveness and building a digital Bangladesh, our banks, government and other regulatory authorities must invest in research and developments of different mobile financial services.

ACKNOWLEDGEMENT

Primarily I would thank my Almighty for being able to complete this paper. Then I would like to thank my main supervisor **Dr.Mohd Nazri Bin Muhayiddin** and co-supervisor **Dr.Ahmed Shaharuddin Abdul Latif** , whose valuable guidance, suggestion and their instructions are the major contribution for continue all my work properly.

I also want to thank my parents, husband, families and friends.

Last but not least I have to thank to my university sole mates who always support me from their busy schedule.

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Factors Influencing Customer Loyalty To Social Commerce Platform

Nur Izzati binti Mohamad Anuar¹

Wan Farha Binti Wan Zulkiffli²

Siti Afiqah Binti Zainuddin³

Siti Salwani Binti Abdullah⁴

Naqib Bin Mat Yunoh⁵

Nik Malini binti Nik Mahdi⁶

Faculty of Entrepreneurship and Business, University Malaysia Kelantan, Malaysia
Correspondence email: nurizzati.ma@umk.edu.my

ABSTRACT

As one of the world's top markets for social media adoption, Malaysia has the growing number of active social media users in which they are most likely turning into paying customers. Therefore, it is essential for retailers across the landscape to utilize these opportunities, harnessing customer acquisition and retention through social commerce loyalty. Hence, this study aims to examine factors influencing customer loyalty in social commerce platforms. Based on the theory of trust, satisfaction and social presence, these factors include trust, satisfaction and social presence. The results of the research were obtained from 346 respondents of students in the Faculty of Entrepreneurship and Business (FEB), Universiti Malaysia Kelantan with the help of Krejcie and Morgan table sampling method and through the use of questionnaire. Besides, Statistical Package of Social Sciences (SPSS) method and Spearman's correlation analysis were also used to analyze the data from the questionnaire. The result shows positive relationships between trust, satisfaction and social presence towards customer loyalty in social commerce platforms. In essence, these findings could contribute to the social commerce literature by addressing factors of loyalty to purchase online via social commerce platforms such as social media that can be used to promote and sell products.

Keywords: Social Commerce Platforms, Customer loyalty, Trust, Customer Satisfaction, Social Presence

INTRODUCTION

Due to the crisis of COVID-19, Malaysia has taken movement control measures and introduced the four-phase National Recovery Plan to curb the outbreak. As physical interactions have been limited, social media is used widely to deliver and exchange information, facilitating social distancing. This includes products and services related information. Consequently, social media has been an effective platform to promote interactive communications, socialization, reviews, recommendations as well as data, information and knowledge that could help consumers to take optimal purchase decisions (Naeem, 2020). This represents the trend of purchasing from social media such as Facebook, TikTok, Instagram, WhatsApp and YouTube in which can be coined to the term – social commerce. It is a platform for trading or doing business mediated by social media (Curty and Zhang, 2011). In social commerce platform, the social functions may enhance the consumers' online shopping experience and the engagement between users may promote products and services to be purchased by consumers (Wang et al. 2019). Businesses strategize to utilize such channels to sell their products and services as the popularity, accessibility, and mobility of social media platforms are shaping the buying behaviour of consumers in the 21st

century (Shoheib and Abu-Shanab, 2022). According to Ali et. Al. (2019), social commerce is distinct from electronic commerce in terms of organization objectives, customer relationships as well as system procedures. Stephen and Toubia (2010) stated that social commerce is a new electronic commerce platform where individual sellers interact and collaborate with each other through social networks to market and sell their products or services to the online marketplace and community. However, little research has been done to investigate the influence of social presence on customer loyalty in the context of social commerce (Lu et. al., 2014; Alhulail et al., 2018).

LITERATURE REVIEW

This section illuminates the literature review of this study that concerns with the theory of trust, satisfaction and social presence to explain the relationship between trust, satisfaction, and social presence with the customer loyalty in social commerce platform.

Customer Loyalty in Social Commerce Platform

There is a difference between traditional customer loyalty and electronic loyalty. The latter refers to a customer's attitude toward a product or service, while electronic loyalty refers to a customer's attitude or behaviour toward revisiting a website (Anderson and Srinivasan, 2003). According to Alhulail et al. (2018), customer loyalty in social commerce platform refers to the consumers' intention to stay, revisit, participate and build continuing social connections within the platform to aid commercial activities and decisions. The other researchers also defined customer loyalty towards social commerce site as a favourable attitude towards the site, expressed by the intention to continue using it (c.f. Afrasiabi Rad and Benyoucef, 2011, Zhong, 2012, Wang, 2009, Shen and Eder, 2009). The behaviours that may emerge when a customer begins to be loyal include site browsing, repeated purchasing, creating content on the site or about the site, sharing a purchase with other friends on social media or recommending the site to other users through integrated social features, such as give a good comments, recommendations, feedbacks and ranking rates. The loyalty can be firmly established because social commerce platform helps in maintaining marketing relationships, social norms and interactivity between users (Zhang et al., 2016).

Based on the literature, theory of trust, satisfaction and social presence are found to be associated with customer loyalty on social commerce platform. The computational and behavioural trust that exists between people, organisations, computers and networks in social commerce platform is the subject of trust theory (Alhulail et al., 2018). On the other hand, satisfaction is based on a complicated information processing routine in which customers evaluate their actual experience with a purchased product or service to the expected advantages from that product or service in relation to its specific intended use (Herrmann et al., 2000; Alhulail et al., 2015). Besides that, social presence theory (Short et al., 1976) focuses on how the use of a given medium is influenced by its social context. Liang and Turban (2011) All in all, it is stipulated that these factors are important to influence customer loyalty in social commerce platform (Alhulail et al., 2018).

Trust

Scholars have distinguished two types of customer trust: cognitive trust and emotional trust. Cognitive trust is a consumer's willingness to rely on the abilities of a service provider as defined by Moorman et al. (1992), while emotional trust defined by Rempel et al. (1985) is as a

customer's feelings and perceptions about a company's concern for its customers. Some scholars have coined the phrase "online trust" to describe customer trust in an online context (Corritore et al., 2003). Emphasizing further, Kuan and Bock (2007) and Flavián et al. (2006) demonstrated that "online trust" can be created in a variety of ways, including through websites, people or customers, and organizations. These statements are seen to have similarities as they were discussing on the aspects of trust in social commerce. According to Kim and Park (2013) trust in the context of social commerce as the level of consumer trust in the reliability of a social commerce firm based on customer emotions generated by the firm's level of sincere concern and care.

According to the brand literature, trust enhances brand value and it is an essential antecedent of customer loyalty (Ribbink et al., 2004) and according to the business literature, trust is an important element for long-term relationships. This has been supported by Kim and Park (2013) who proclaimed that trust can affect customer uncertainty in terms of choosing social commerce company to deal with. Reichfield et. al. (2000) found that the result of gaining high customer trust affects high customer loyalty. Due to high risk in online transactions, online customers tend to purchase from online retailers that they trust (Singh and Sirdeshmukh, 2000). In addition, Anderson and Srinivasan (2003) stated that once the online customer loses his/her trust on a website, he/she will not return.

H1: There is a relationship between trust and customer loyalty in social commerce platform.

Satisfaction

Customer satisfaction is an outcome that occurs when a customer contrasts their perceived reward with the cost of purchase after purchasing any goods or service, in accordance to their expectations (Churchill and Surprenant, 1982). According to a study, customer satisfaction is related to customer loyalty, which also related to profitability for a company (Giese and Cote, 2000). This has been supported by Keeney (1999) and Eid (2011) who stated that maximizing customer satisfaction is a priority in social commerce industry because customer pleasure has a significant impact on consumer loyalty. Alhulail (2015) also stated that the sustained growth of social commerce platform is dependent on the satisfaction and loyalty of the customer to the website. Overall, previous studies exemplified that customer satisfaction is significantly related to the loyalty on social commerce site (Akbar and Parvez, 2009, Pai and Tsai, 2011, Alhulail et al., 2015).

H2: There is a relationship between satisfaction and customer loyalty in social commerce platform.

Social Presence

Social presence is typically defined as a sensation of personal friendliness, sensitivity, and interaction that is contained in the medium of communication (Olbrich and Holsing, 2011). According to Shen and Khalifa (2009), social presence has been shown to have a significant impact on customers in an online environment. This has been supported by Alhulail et al. (2015) who found that social presence can retain customer loyalty on social commerce platform. As greater social presence can be acquired from greater sense of intimacy and immediacy, Gefen and Straub (2004) and Mäntymäki and Salo (2010) claimed that if consumers feel that a shopping commerce site is user-friendly and welcoming, this will increase their perception of social presence, which in turn increase their level of loyalty. Kim and Park (2013) and Wang and

Zhang (2012) stated that most social commerce platforms are focusing on the ability as a communication medium to convey a sense of warmth and human friendliness when users interact with each other, in which reflects the point of view of social presence.

H3: There is a relationship between social presence and customer loyalty in social commerce platform

Conceptual Framework

Based on the theories of trust, satisfaction, and social presence associated with customer loyalty in the context of social commerce, this research framework has been developed to investigate the relationship between three independent variables and dependent variable.

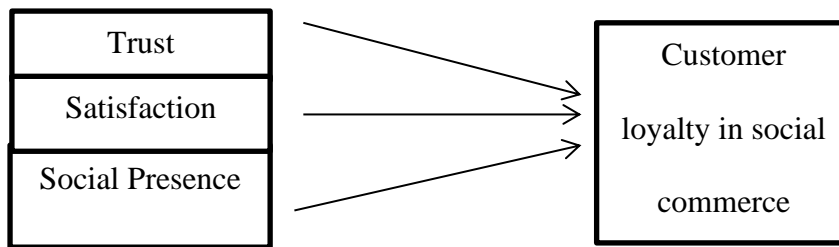


Figure 1: Conceptual framework

METHODOLOGY

This research adopted a quantitative approach. Based on Krejcie and Morgan (1970), the sample size was set at 346 considering the total number of students in the Faculty of Entrepreneurship of Business is 3593. A non-probability sampling method which is convenience sampling was used to collect the data through the questionnaire which includes three sections. Section A has demographic questions. On the other hand, section B and section C include series of questions related to independent variables and dependent variables with a 5 point of Likert Scale. A pilot test was conducted prior to data collection for reliability. Since the value of Cronbach’s alpha of all variables are above 0.7, this indicates the reliability of questionnaire. Table 1.0 below shows previous studies which are adopted to develop the questionnaire.

Table 1.0: Source of measurement

Variable	Source of Measurement
Trust	Liang and Turban (2011)
Satisfaction	Akbar and Parvez (2009), Pai and Tsai (2011), Alhulail et al. (2015)

Social Presence	Kim and Park (2013), Wang and Zhang (2012)
Customer Loyalty in Social Commerce Platform	Afrasiabi Rad and Benyoucef (2011), Zhong (2012), Wang (2009), Shen and Eder (2009)

FINDINGS AND DISCUSSIONS

This study was conducted to achieve three objectives. The first objective was to identify the relationship between trust and customer loyalty in social commerce platform. The second objective was to measure the relationship between satisfaction and customer loyalty in social commerce platform while the last objective was to examine the relationship between social presence and customer loyalty in social commerce platform. Spearman's Correlation Analysis was used to address these research objectives, as shown in table 2.0.

Table 2.0: Results of Correlations

Correlations					
		IV1	IV2	IV3	DV
IV1	Spearman Correlation	1.000	.851	.832	.808
	Sig. (2-tailed)	.	.000	.000	.000
	N	346	346	346	346
IV2	Spearman Correlation	.851	1.000	.801	.904
	Sig. (2-tailed)	.000		.000	.000
	N	346	346	346	346
IV3	Spearman Correlation	.832	.801	1.000	.793
	Sig. (2-tailed)	.000	.000		.000
	N	346	346	346	346
DV	Spearman Correlation	.808	.904	.793	1.000
	Sig. (2-tailed)	.000	.000	.000	
	N	346	346	346	346

Source: Develop for Research from SPSS

Trust and Customer Loyalty in Social Commerce Platform

There is a positive relationship between trust and customer loyalty in social commerce platforms (H1) and this is supported by Lu et. al (2016) who stated that trust could help the customer to reduce the perceptions of risks that may occur when they deal on social commerce platform and to encourage them to share information or make purchases. The built of trust will lead to a comfort situation in the relationship where it can affect someone to remain loyal and supportive. Table 2.0 shows that the correlation value for trust was 0.808 at $p < 0.05$. Thus, the alternate hypothesis H1 was accepted.

Satisfaction and Customer Loyalty in Social Commerce Platform

This study also found that there is a positive relationship between satisfaction and customer loyalty in social commerce platform (H2). This has been supported by Usmed et. al. (2021) who claimed that this strong relationship encourages recommendation actions. Table 2.0 shows that the correlation value for satisfaction is $r = 0.904$ at $p < 0.05$ where it is the highest value compared to other independent variables. Therefore, this hypothesis was accepted.

Social Presence and Customer Loyalty in Social Commerce Platform

There is also a positive relationship between social presence and customer loyalty in social commerce platform (H3). According to Alhulail, et. al. (2018), social presence can be defined as the extent to which a medium allows a user to experience the presence of other human beings and it is one of the most important factors for online customer loyalty. Social presence and interaction between users in social commerce platforms create social signals and allow users to build relationships (Nadeem et al., 2020). Table 2.0 shows that the value of correlation between social presence and customer loyalty in social commerce platform is $r = 0.793$, $p < 0.05$. Therefore, this hypothesis was accepted.

CONCLUSION

In a nutshell, the online retailers are suggested to increase the level of trust, satisfaction and social presence of users to increase the loyalty of consumers on social commerce platforms such as Facebook, Instagram, Twitter, WhatsApp and others. This is crucial to be considered considering that social commerce industry in Malaysia is expected to grow and purchases through social networks are on the rise. However, the researchers were challenged with limitations such as time constraint. Hence, the findings of the research were only representing the students in the Faculty of Business and Entrepreneurship in one of public higher education institutions in Malaysia. Thus, it is recommended that the students from other universities are included to provide more conclusive results. Besides, as this research only focused on trust, satisfaction and social presence, future research can be extended to include other variables such as risk, into the conceptual framework. This will provide beneficial insights on the other factors that can influence the loyalty towards social commerce platform. After all, future research can be extended to qualitative approach to explore attitudes, behaviour and experience based qualitative methods such as in-depth interview, focus group or even participant observation.

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