

SCHOOL OF BUSINESS MANAGEMENT
UNIVERSITI UTARA MALAYSIA



PROCEEDING OF THE CONFERENCE ON BUSINESS MANAGEMENT: BUSINESS OPPORTUNITIES AND CHALLENGES

TUESDAY, 6 DECEMBER 2022
ONLINE WEBEX

Editors:

Dr. Muhamad Ali Imran Kamarudin

Dr. Mohd Salahudin Shamsudin

Dr. Mohd Sufli Bin Yusof

Dr. Hasnizam Bin Hassan

Assoc. Prof. Dr. Azahari Ramli

Mohamad Azlan Bin Yaakup

**PROCEEDING OF THE
CONFERENCE ON BUSINESS MANAGEMENT
(CBM 2022)
Business Opportunities & Challenges**

6 DECEMBER 2022

Organised By:

**Seminar Committee
School of Business Management
Universiti Utara Malaysia
Sintok, Kedah, Malaysia**

December 2022

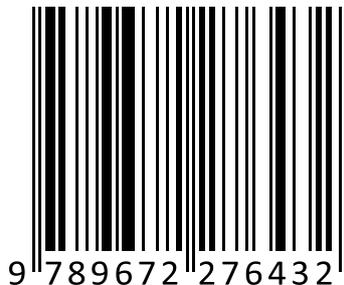
Copyright Notice

Conference on Business Management (CBM2022)
Business Opportunities & Challenges
School of Business Management
Universiti Utara Malaysia
Sintok, Kedah, Malaysia

The Conference on Business Management (CBM 2022): Business Opportunities & Challenges, School of Business Management, Universiti Utara Malaysia, 06010 Sintok, Kedah Darul Aman, Malaysia. Copyright©2022 by the Conference on Business Management (CBM 2022), School of Business Management. Permission to make digital or hard copies of portions of this work for personal or classroom use is granted without fee provided that the copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page in print or the first screen in digital media. Copyrights for components of this work owned by others than the Conference on Business Management (CBM 2022) must be honoured.

To copy otherwise, to republish, to post on servers, or to redistribute to lists, requires prior specific permission. Send written requests for republication to the Conference on Business Management (CBM 2022), School of Business Management, Universiti Utara Malaysia. Copyright & Permissions at the address above or email cbm2022@uum.edu.my or sbm@uum.edu.my.

e ISBN 978-967-2276-43-2



Preface

The Conference on Business Management (CBM 2022): Business Opportunities & Challenges is organized by the Seminar Committee, School of Business Management, Universiti Utara Malaysia. The conference's theme covers the area of business management, entrepreneurship, marketing and human resource management. The conference's main objective is to provide a platform for knowledge sharing among faculty members and students.

The conference received 22 empirical and conceptual papers from the authors. All submissions were peer-reviewed by the panel of reviewers who were also faculty members of the School of Business Management, Universiti Utara Malaysia. Various topics covering the conference's theme were presented during the conference day. In the Q&A session, the presenters and participants exchanged ideas and opinions that contributed to the prospect of future research among them. We believe that the conference contributes a significant impact on all.

The Seminar Committee acknowledge the invaluable commitment of the organizing committee members. A list of organizing committee members can be found on the next page. We hope the conference can be arranged on an annual basis.

Chief Editor

Muhamad Ali Imran Bin Kamarudin
School of Business Management
Universiti Utara Malaysia

Organising Committee

Assoc. Prof Dr. Azahari Bin Ramli
Dr Saiful Azizi Bin Ismail
Dr Chong Yen Wan
Dr Hazlinda Binti Hassan
Dr Mohd Nizam Bin M. Sarkawi
Dr Muhammad Ali Imran Bin Kamarudin
Dr Mohd Sufli Bin Yusof
Dr Hasnizam Bin Hassan
Dr Mohd Salahudin Bin Shamsudin
Dr Shahrizal Bin Badlishah
Assoc Prof. Dr Abdul Shukor Bin Shamsudin
Assoc. Prof. Dr Awanis Binti Ku Ishak
Mohamad Azlan Bin Yaakup

Table of Contents

1. The Intention On E-Wallet Adoption Among Elderly in Malaysia. Shamsul Huda Abd Rani, Pavithra A/P Janardhanan	1
2. The Relationship Between Safety Technology and Macro Ergonomics with Safety Climate in Malaysia Construction Industry. Ahmad Asyraf Nooh, Nor Azimah Chew Abdullah	8
3. A Conceptualization of The Effectiveness of The Universities Internship Program: The Facilitating Role of The Academic Mentor. Muhamad Ali Imran Kamarudin, Syamsuriana Sidek, Hasnizam Hasan, Tunku Nur Atikhah Tunku Abaidah and Mohamad Zakuan Tuan Ibrahim	18
4. Kajian Konseptual Impak Bantuan Kerajaan Dan Orientasi Keusahawanan Ke Atas Komitmen Eksport Di Kalangan Koperasi Di Malaysia. Azahari Ramli, Shahrina Othman, Muhamad Ali Imran Kamarudin, Mohd Salahudin Shamsudin, Khairunnisak Ahmad Shakir	25
5. Exploring Entrepreneurial Branding: Putting The Concept Into Perspective. Hasnizam Hasan, Mohd Sufli Yusof And Shuhymee Ahmad	33
6. Impak Orientasi Keusahawanan Ke Atas Prestasi Koperasi Di Malaysia : Satu Kajian Empirikal. Khairunnisak Ahmad Shakir, Sajiah Yakob, Suraiya Shafiee@Ismail, Ahmad Fahrizal Asmy Mohamed Yunus, Ardio Sagita	48
7. Assessing Suitability And Usability Of Wellness Measurement (Five Factor Wellness, 5f-Wel) In Malaysia. Awanis Ku Ishak, Norzalila Jamaludin	59
8. Factors Influencing Consumer Intention In Purchasing Green Products In Malaysia. Norliza Hamir Basah, Syahirah Syuhada Sohibul Basri	75
9. Conceptualization Of Knowledge Management In Remote Work In Mitigating the Covid-19 Crisis. Wahidah Padeli, Faizuniah Pangil	82
10. The Impact Of Digital Literacy On Students' Intention To Adopt E-Learning And The Role Of Gender As Moderator: A Conceptual Study. Safwan Marwin Abdul Murad, Azanin Ahmad, Norzalita Abd Aziz	92
11. The Impact Of Performance And Effort Expectancy On Travelers' Intention To Adopt Virtual Reality Tours During The Endemic Phase: A Conceptual Study. Safwan Marwin Abdul Murad, Arunnaa A/P Sivapathy, Norzalita Abd Aziz . 99	99
12. Serene Business Environment And The Performance Of Small And Medium Enterprises In Malaysia. Khar Kheng Yeoh	107
13. Factors Influence To Occupational Stress Among Occupational Therapists. Mohd Rasul Mohammad Noor, Mohd Faizal Mohd Isa, Mazrina Osman	124
14. Feasibility Study On Aquaculture Entrepreneurship Activity: Mussels Farming Community Engagement In Tangkak And Merlimau Area. Shahrina Othman, Muhamad Ali Imran Kamarudin, Azahari Ramli, And Mohd Salahudin Shamsudin	133

15. Persekitaran, Pendidikan Dan Penggunaan Teknologi Semasa Pandemik Covid-19 Terhadap Kesihatan Mental Dalam Kalangan Remaja Di Malaysia: Model Cadangan Kajian. **Hadziroh Ibrahim, Md. Lazim Mohd Zain, Chandrakantan Subramaniam, Edora Ismail, Noor Hafiza Zakariya And Nor Farah Hanis Zainun** 140
16. A Structural Model Of The Relationship Between Product Quality, Benefits, Values And Consumer Consumption Behavior Towards Herbal Products. **Tunku Nur Atikhah Tunku Abaidah, Nor Azila Mohd Noor And Mohd Tahir Ahmad ...** 156
17. Covid-19 Impacts On The Retail Business: A Case Of Zara. **Intan Shafinaz Ahmad, Maggie Tee** 168
18. Malaysian Baby Boomers' Purchase Intention Through Social Media And E-Commerce Platform During Global Pandemic: A Proposed Framework. **Azrain Nasyrah Mustapa, Hendrita A/P David** 174
19. Scheduling Elements Implementation On Food Delivery Service Towards Customer Satisfaction During Covid-19 Pandemic. **Anas Firdaus Shaheen Azizi, Norshahrizan Nordin** 182
20. A Conceptual Study On The Relationship Between Business Strategy, Market Orientation And Smes Performance In South Sumatra, Indonesia. **Ardio Sagita, Mohd Salahudin Shamsudin, Shyalwi Suhimi, Aris Kusumo Diantoro, Adnan Kasofi**..... 191
21. Online Business Success Factors For University Students In Klang Valley. **Mohd Sufli Yusof, Hasnizam Hasan And Zahira Amer Hamzah** 198

THE INTENTION ON E-WALLET ADOPTION AMONG ELDERLY IN MALAYSIA

Shamsul Huda ABD RANI¹, Pavithra a/p JANARDHANAN²

^{1,2}*Universiti Utara Malaysia*

Abstract. Rapid growth of technology revolution in the world are changing the financial transaction practices towards cashless approaches whereby electronic wallets are widely introduced their citizen including Malaysia. In the context of Malaysia as a developing country, it is important for the stakeholder especially government, community, e-wallet services provider and so on to highly participate in term of helping the nation to realize the goals to transforms nation become cashless society by technological approaches. General objectives of the study is to examine the factors that influence the intention to adopt e-wallet in Malaysia especially among the elderly. This is due to the statistics showed less adoption among elderly. In this study, the main objectives derived are to analyses the relationship between perceived security with intention to adopt e-wallet among Malaysia elderly. Furthermore, instruments used for data collection is self-administered questionnaire which distributed to 384 respondents and data then is proceed for analysis by SPSS method. Findings of the study showed that perceived security has a positive relationship with the intention to adopt e-wallet among elderly in Malaysia.

Keywords: Intention to adopt e-wallet, perceived security, elderly, cashless.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: shuda@uum.edu.my

Introduction

In the era of technology revolution, individuals' lifestyles have rapidly change and move towards digitalization approaches whereby internet, smartphones etc. are essential for one's daily life routine, such as making bill payment, shopping as well as funds transfer (Mehta & Shah, 2020). Andrew et al. (2019) claimed that an e-wallet is an app-based payment system that replaces a physical wallet that allows consumers to make electronic payment via their smartphone with connectivity of internet. Meanwhile, rapid growth in e-commerce business leads retailers and consumers to adopt this mode of payment in financial transaction, which indirectly contributes to the visible growth of e-wallet adoption instead of brick or mortar practices.

Malaysia as developing country provides multiple initiatives to follow pace of cashless payment system revolution for encourage its citizen and simultaneously provide awareness of using an e-wallet with the aims for moving toward a cashless society to digitise economy. E-wallet initiative was introduced in July 2020 through Penjana Economy Recovery Plan to increase adoption of e-wallet payment system which simultaneously promoting safety and contactless practices to deals with the COVID-19 pandemic (Mohd Din, 2020).

Literature Review

Intention to Adopt E-Wallet

Electronic wallet, digital wallet and mobile wallet are similar term representing the online based wallet that has replaced traditional method of carrying physical and allow an individual to perform transaction by managed linkage to cards or bank account for the purpose of paying bills and utilities, online shopping, fund transfers and including any online transactions (Tiwari, Garg & Singhal, 2019). In fact in the 21st century, technology revolution indirectly pushed the community to familiar with cashless financial transaction practices in order to promote nation to become developed country especially for Malaysia (Karim et al, 2020).

Perceived Security

Security also known as the protection against unauthorized alteration in accessing personal sensitive data by three stages of processes which are store, process and transmit into either legal or illegal activities for unlawful purpose (Matemba, Li & Maiseli, 2018). Whereby, perceived security is defined as the individual perception or believes towards to the degree of safety when dealing with electronic wallet compromise with complicated process of connection (Shin, 2009; Yenisay, Ozok & Salvendy, 2005). There are five security objectives which are related to the nature of security elements namely integrity, confidentiality, authentication, authorization and non-repudiation. The level of safeness for each objective are believed can influence on individuals' intention to adopt any digital wallet that connect to the technological elements (Linck, Pousttchi & Wiedemann, 2006). According to Soodan & Rana (2020) perceived security has been identified as a critical factor in influencing individual's intention to adopt e-wallet due to one's perception that online transaction will lead to threat of financial crime especially online financial application such as e-wallet platform dealings with complexity in term of security matters. Previous researchers also claimed that either strong or

moderate impact of relationship between perceived security and intention to adopt mobile wallet.

Elderly Context

Based on the study done by Orimo et al (2006), elderly group is the segment of people who are age 65 and above. To be more precise, people who in the age range of 65 to 74 are define as early elderly while those who are 75 years old and above called late elderly. The subject matter of the elderly draws a huge concern towards the revolution of the technology era, where their existence should not be abandoned in rapid changes to become digitalized nation.

Hypothesis Development

The relationship between perceived security and intention to adopt e-wallet among Malaysian elderly

The evolution towards Fourth Industrial or Industry 4.0, people starting to changing their banking lifestyle from traditional banking method to e-banking channel especially e-wallet as payment method (Lim, Ahmad & Abdul Talib , 2019). Previous studies claimed that there is quite number of study related to the intention to adopt e-wallet yet limited on Malaysian elderly context. A study conducted among university students reveals that perceived security have positive relationship with the intention to adopt e-wallet yet weak in term of relationship strength if compared with other factors in the particular research (Osman & Leong, 2021). In addition the results obtained by Wong & Mo (2019) indicated that perceived security are invincibly bounded to the intention on mobile wallet adoption which simultaneously instil strong influence on the intention among potential users. Therefore, this hypothesis has been posited:

H1: There is a significant relationship between perceived security and intention to adopt e-wallet among Malaysian elderly.

Research Design

There are two types of study for research design namely quantitative and qualitative study for analyses approaches on data collection (Sekaran & Bougie, 2013). In this study, quantitative design was chosen as data collection method because it specifies deductive approaches to the research for prove and disproving the existing theory (Leavy, 2017). A cross-sectional method was undertaken due to the time constraints to examine the relationship of digital wallet adoption with the factors outlined in this study.

Population and Sample

The target population chosen are among elderly with age 65 years and above where the data are extracted from Department of Statistics Malaysia targeted in Malaysia population. Based on Krejcie & Morgan (1970) table produced for sample selection according to the population obtained, sample of 384 respondents needed for more than 75 thousand of population for this study, data are collected to represents overall statistics of population in Malaysia. Moreover,

sampling design used is probability sampling with simple random sampling based on customer listing in Malayan Banking Berhad branches in Pahang state of elderly age 65 years and above. Malayan Banking Berhad was chosen for sample data collection because they are the first bank embarked on e-wallet services as first financial institution introduce e-wallet called MAE linked with bank facilities in Malaysia.

Unit of Analysis

Unit of analysis in this study involved individual as respondent who meet the requirement for the study. Therefore, data collected from each elderly respondent is analyse as individual data sources.

Data collection

A five- point Likert scales will be adopted for the questionnaire in this study for respondents to express their view and direction for each question constructed (Garland,1991). In addition, face to face approaches will be applied to distribute the questionnaire to the elderly due to the accessibility of smart phone and internet for elderly is limited. Moreover, this method is considered suitable for the particular respondents chosen because certain elderly are illiterate, thus assistance in explaining the questionnaire to elderly are required. Thus, in this study, total number of 384 questionnaires were distributed to the selected respondents.

Data Analysis Technique

Statistical Package for the Social Sciences (SPSS) version 26 as analysis technique was applied in this study to examines the relationship between intention to adopt e-wallet dan perceived security among Malaysia elderly. Data analysis technique using SPSS are most common technique applied for quantitative research because each variable are analysis and coding accordingly from simple descriptive statistic to several multivariate procedure of analysis which related to particular study conducted (Meyers, Gamst & Guarino, 2013). Thus, for this study, descriptive analysis and correlation analysis and regression analysis have been conducted.

Findings of the Study

Demographic Analysis

This part of analysis is crucial for researcher to study the characteristic of their respondent in which align with the survey validity and the demographic data was analysed by the feedback from 398 respondents. The data obtained from section A which is demographic section that includes questions among various variable of the respondent such as gender, education level, etc. Most of the respondents possess Bachelor degree as their education level with the highest percentage of 46.7% similar to 186 respondents out of 398, followed by 124 (31.2%) of respondents possess Diploma. Other than that, there are respondents with education level of Master, Secondary School, PhD and Primary School are 30 (7.5%), 27 (6.8%), 25 (6.3%) and 6 (1.5%) respectively. From the total 398 respondents, 179 (45%) respondents were male meanwhile 219 (55%) were females who are all age 65 and above.

Reliability analysis

The Cronbach Alpha value for intention to adopt e-wallet are 0.838 followed by the value of 0.845 for the variable of perceived security.

Pearson Correlation Analysis

The Pearson Correlation Analysis showed that there is a positive correlation between perceived security and intention to adopt e-wallet ($r=0.0795$, $p<0.01$) which indicated there is a relationship between the two variables. Moreover, the result of correlation analysis of 0.795 showed very high correlated relationship because the value is 0.70 and above consider very high correlation relationship between the two variables (Pallant,2013). To illustrate, the rate of intention to adopt e-wallet increase in perfect correlation with perceived security.

Discussion

There is a significant relationship between perceived security and intention to adopt e- wallet among Malaysian elderly.

From correlation analysis, it showed that there is high correlation relationship between perceived security and intention to adopt e-wallet while supported by regression analysis, it reflect that positive beta values ($\beta=0.361$) with t values scores at 8.135 and significance level less that acceptable range at $p=0.000$, thus it leads perceived security to have positive and significant relationship with intention to adopt e-wallet. It also depicted perceived security has the strong influence on the dependent variables of intention to adopt e-wallet among elderly in Malaysia. The findings seem to be associated with the results obtained by Wong & Mo (2019) which indicated that perceived security is invincibly bounded to the intention on mobile wallet adoption which simultaneously instil strong influence on the intention among potential users. It is believed that the number of e-wallet usage will increase however perceived security will be imperative factors that determines the active usage among user, hence service provider need to ensure in provide safe and secure platform for user to transact in continuous habit instead of only during pandemic circumstances. To conclude, hypothesis 1 is accepted.

Recommendations for future studies

There are several recommendations for future studies which might involve the role of moderating variable for example income level or geographical location of rural and urban area residents which indirectly trigger in the infrastructure support in adopting e-wallet widely among the segment of residents. Other than that, future studies also might explore on e-wallet usage rate because adoption rate would unable to drive nation to realize the digitization plan when citizen still using traditional payment even though having electronic wallet application in their smart phone.

As for the service provider, they play critical roles to achieve the vision of supporting digitalization approach country by facilitating or providing comprehensive and suitable e-wallet systems compromise different category of user from youngster to the group of elderly.

Conclusion

In the conclusion, this study was conducted to examine the factors of perceived security that influence the intention to adopt e-wallet among elderly in Malaysia and research objectives was fulfilled. The result findings concluded that perceived security is positive significantly affected the intention to adopt e-wallet among elderly. Thus, services provide and government should take proper measurement and action to boost the rate of e-wallet adoption meanwhile future researcher may put efforts in replicated same research study but in different context to extend the study scope in intention to adopt electronic wallet system.

References

- Andrew, J.V., Slyvia, Nabila, A.A., & Tan, K.E. (2019). A Model of Factors Influencing Consumers' Intention to Use e-Wallet System in Malaysia: A Systematic Review. *Malaysia Journal of Business and Economy*, 6(2), 53-53.
- Garland, R. (1991). The mid-point on a rating scale: Is it desirable. *Marketing bulletin*, 2(1), 66-70.
- Karim, M. W., Haque, A., Ulfy, M. A., Hossain, M. A., & Anis, M. Z. (2020). Factors influencing the use of E-wallet as a payment method among Malaysian young adults. *Journal of International Business and Management*, 3(2), 01-12.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Leavy, P. (2017). Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches. *Guilford Publications*.
- Lim, F. W., Ahmad, F., & Abdul Talib, A. N. (2019). Behavioural Intention towards Using Electronic Wallet: A Conceptual Framework in the Light of the Unified Theory of Acceptance and Use of Technology (UTAUT). *Imperial Journal of Interdisciplinary Research (IJIR)*, 5(1), ISSN: 2454-1362.
- Linck, K., Pousttchi, K., & Wiedemann, D.G. (2006). Security issues in mobile payment from the customer viewpoint. *14th European Conference on Information Systems (ECIS)*, 1-11.
- Matemba, E.D., Li, G., & Maiseli, B.J. (2018). Consumers' Stickiness to Mobile Payment Applications: An Empirical Study of WeChat Wallet. *Journal of Database Management (JDM)*, 29(3), 43-66.
- Mehta, N., & Shah, S. (2020). Payment Banks: Digital Revolution in Indian Banking System. *International Journal of Management and Humanities (IJMH)*. ISSN: 2394 – 0913, 4(6), 110 - 115.
- Meyers, L. S., Gamst, G. C., & Guarino, A. J. (2013). Performing data analysis using IBM SPSS. *John Wiley & Sons, Inc. Hoboken, New Jersey*.
- Mohd Din, M. K.H. (2020, June 5). RM50 e-wallet credit to encourage contactless payment. *News Strait Times Online*. Available at: <https://www.nst.com.my/news/nation/2020/06/598242/rm50-e-wallet-credit-encourage-contactless-payment>
- Orimo, H., Ito, H., Suzuki, T., Araki, A., Hosoi, T., & Sawabe, M. (2006). Reviewing the definition of "elderly." *Geriatrics and Gerontology International*, 6(3), 149–158.
- Osman, S., Leong, Y.Y. (2021). Factors Influencing The Intention to Adopt E-Wallet Among Students of Universiti Putra Malaysia. *International Journal of Academic Research in Business & Social Science*, 11(11), 1624-1641.
- Sekaran, U. and Bougie. R (2013). Research methods for business (6th ed.). *New York: John Wiley & Sons, Inc Learning*.

- Shin, D.H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behavior*, 25(6), 1343–1354.
- Soodan, V., & Rana, A. (2020). Modeling Customers' Intention to Use E-Wallet in a Developing Nation: Extending UTAUT2 with Security, Privacy and Savings. *Journal of Electronic Commerce in Organizations (JECO)*, 18(1), 89-114.
- Tiwari, P., Garg, V., & Singhal, A. (2019). A study of Consumer Adoption of Digital Wallet Special Reference to NCR. In *2019 9th International Conference on Cloud Computing, Data Science & Engineering (Confluence)*, 664-669.
- Wong, W. H., & Mo, W. Y. (2019). A Study of Consumer Intention of Mobile Payment in Hong Kong, Based on Perceived Risk, Perceived Trust, Perceived Security and Technological Acceptance Model. *Journal of Advanced Management Science Vol*, 7(2), 33-38.
- Yenisey, M. M., Ozok, A. A., & Salvendy, G. (2005). Perceived security determinants in e-commerce among Turkish university students. *Behaviour & Information Technology*, 24(4), 259–274.

**THE RELATIONSHIP BETWEEN SAFETY TECHNOLOGY AND MACRO
ERGONOMICS WITH SAFETY CLIMATE IN MALAYSIA CONSTRUCTION
INDUSTRY**

Ahmad Asyraf NOOH¹, Nor Azimah Chew ABDULLAH²

^{1,2}*Universiti Utara Malaysia*

Abstract. Previous research has shown that there are research gaps between the general information on safety technology and the macro ergonomic approach in organisations and its relevance to OSH practise. The main objective of this study is to analyse the relationship between the use of safety technology and the macro ergonomic approach in relation to safety climate outcomes. The instrument used for this research is a structured questionnaire that measures the main variables of safety technology, macro ergonomics and safety climate using a 6-point Likert scale. For this study, 375 workers of a construction company were interviewed. The data were analysed using descriptive and multiple regression methods with IBM SPSS version 26. The results showed the influence of safety technology and macro-ergonomic approach on positive organisational safety climate outcomes. The implications of these results were discussed for both general theories and the safety approach.

Keywords: Safety technology, socio-technology, macro ergonomics, safety climate.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: norazimah@uum.edu.my

Introduction

Construction is one of the industries that have contributed to Malaysia's economic development and prosperity (Ghazali, 2018). However, it is one of the most-risky industries because its activities are associated with various risks and hazards, environmental conditions, and various jobs during development (Chang, 2012). In addition, Jin (2019) stated that the number of fatal occupational accidents in developed countries will increase six times. In addition, research in recent years shows the importance of organizational aspects in construction safety management, which has received attention in the research on safety climate.

Ghazali (2018) pointed out that a good safety climate must be promoted in the organization to fully support employee safety. Employees are in a positive safety climate because they feel that management supports them and is committed to their safety, especially in the construction industry. For example, crane accidents in Malaysia have resulted in a number of serious injuries, fatalities, lost productivity, and loss of property both inside and outside the building (Hamid et al., 2019). Therefore, Juhari & Ariffin (2020) pointed out that companies need to provide a proper manual for the use of machinery and equipment at sites with safety procedures. This statement shows the importance of the organization's awareness and adherence to safety.

In addition, the study by Gamil et al. (2020) also examined workers' perceptions of IoT technology implementation and application, as well as barriers to IoT deployment in construction. The study found that awareness of IoT among workers is low. This leads to the problem of safety climate when introducing new technologies to be deployed by the organization. So, employees have a different perception and attitude towards safety when they are dealing with less safety management.

Moreover, safety technologies such as construction simulators can train workers to identify workplace hazards and provide cases that resemble real-life situations (Nnaji et al., 2019). Once the hazard is identified by the system, this platform generates prevention strategies to eliminate the construction hazards. The use of these technologies has many benefits for safety and health management in construction (Awolusi et al., 2018). However, Gamil et al. (2020) reported that the main challenge in implementing IoT application in Malaysia is lack of security aspects and security attacks.

Moreover, according to Mahmud et al. (2018), the low usage rate of IoT is due to the expensive price, additional technical training, and connectivity issue of this technology (Lau et al., 2019). Therefore, the technical issues and technical training requirements for the use of the technology are the responsibility of the companies to ensure that the importance of security technology is well perceived in the Malaysian construction industry.

In addition, the hazardous working conditions in the construction industry are widely recognised due to rapid technological advances, work processes and related procedures. It has been stated that it is unattainable to completely eradicate all human error. However, with the sophisticated technologies to detect and correct errors in real time, many construction site accidents could be avoided in a practical way.

Skepticism about new technologies and lack of technological knowledge became the reason for the hesitant use of cutting-edge technology. Although the construction industry is

considered or known to be skeptical of the application of advanced technologies, many researchers believe that technologies such as Geographic Information Systems (GIS), Radio Frequency Identification (RFID), robotic sensing, wearable security devices (WSDs), and others can be appropriately applied in the construction industry (Zhou et al., 2013). This shows that safety technology in the construction industry, especially in Malaysia, is a must for this new era.

Additionally, there is another approach that considers not only all problems in the application of safety technologies, but also macro ergonomics. According to Dwiyanti et al. (2019), macro ergonomics is defined as a sociotechnical approach to the design of human-machine work systems, including organizational structures. It includes support from the upper to the lower level of the organization. Kleiner (2006) stated that macro ergonomic models favor the human factor, technology and tools, and the environment as the main elements that influence the efficiency of work systems.

Ayob et al. (2018) stated that organizational safety policies must demonstrate top management commitment to providing safe work environments, policies, and procedures for employees in each job-related category. Worker evaluation and feedback are necessary to serve as a useful reference for the safety climate. Thus, a good safety climate requires understanding and brilliant ideas to effectively maximise the use of technology and increase awareness of the human-machine system through assessment and feedback at all levels of construction workers.

Based on the above information, this study aimed to investigate the elements that influence the safety climate in the Malaysian construction industry through safety technology and macro ergonomics.

Literature Review

Some definitions

Guldenmund (2000) described safety climate as sharing perceptions, beliefs, values, norms, and organisational procedures. In addition, Gryphon & Neal (2000) indicated that safety climate is an individual perception of workplace safety. Chan et al. (2014) defined safety climate as a coordinated recognition of the need for safety in a work environment, which has been recognised as a critical organisational component for enhancing safety performance in the construction industry.

Safety climate is a useful diagnostic tool for identifying issues critical to improving safety (Melia et al., 2008). Previous studies by Isla Diaz & Diaz Cabrera (1997) and also DeJoy et al. (2004, 2010) expressed that the solid antecedents of perceived safety climate are safety-related approaches and activities. Sinclair et al. (2010) defined safety climate as "...workers' shared perceptions of the value their organisation places on safety as expressed in the organisation's safety policies, practises, and procedures."

All new technologies used for workplace safety are referred to as safety technology: mobile apps, cloud-based software, machine sensors, wearables, predictive analytics, real-time employee monitoring and tracking, embedded sensors for tracking PPE, and more. According to Gao et al. (2015), Jiang et al. (2015), and Tehrani & Michael (2014), a wearable technology

is a technology that can be comfortably worn on the human body, such as clothing or devices equipped with technical safety functions. Such wearable smart glasses, smart watches, or smart clothes have attracted the interest of a variety of industries.

Originally, most of these technologies were introduced to improve the quality of end products or the efficiency of the construction process, which ultimately led to lower costs and higher profits. Nowadays, it is evident that construction technology is increasingly used to monitor safety and health management (Nnaji et al., 2019). Individual technologies can be used in various construction applications to reduce workplace hazards.

There are numerous technologies that can be used to train employees to recognise workplace hazards. In presenting cases that resemble real life, Hendrick (1997) stated that macro ergonomics is a branch of study that focuses on the overall design of work by providing the knowledge and tools needed to improve work systems.

As a result, it leads to increased organisational efficiency and performance. It seeks a thorough understanding of the processes involved in creating work from the top down, with macro ergonomic design first, work system design second, and micro ergonomic design third. The socio-technical systems (STS) approach, introduced by Dalpiaz (2013) in organisational development, provides a theoretical foundation for macro ergonomics. STS examines the interactions between people and technology in the workplace.

Safety Technology and Safety Climate

The use of technology as a preventive approach to reduce the risk of occupational injuries and fatalities in the construction industry has increased dramatically over the past two decades. Previous research has highlighted the barriers that can stand in the way of technology adoption in construction and the need to improve awareness of the benefits and usability of technology for safety and health management in construction.

Previous studies of organisations with varying levels of safety often found a range of safety system characteristics and features, including both technological and social or organisational factors (Cohen 1977; Hale & Hovden 1998; Saari 1990; Mearns et al. 2003). Organisations that have a solid and good reputation for reliability not only focus on risks and methods to avoid hazards, but also have dedicated leaders who are committed to safety and employees who are motivated and passionate about participating in safety events. Although the interplay between technical and social/organisational aspects is widely recognised, there is not yet broad agreement on the key characteristics of an effective safety management system (Hale, 2003).

The safety climate adequately represents the two subsystems, namely the technical and the organisational. If the safety climate represents the overall safety position of the organisation from the perspective of its members, it should obviously be a result of sociotechnical integration at this point in time, to the extent that employees are aware of the functioning of both subsystems. Previous studies have shown that safety-related rules and practises have a strong antecedent function on safety climate. (DeJoy et al., 2004, 2010). If an organisation's technological controls are weakened in favour of behavioural or compliance tactics, this should be reflected in management support and safety climate ratings.

Macro ergonomics and Safety Climate

In the context of macro ergonomics theory, software refers to management-based aspects such as policies or rules, processes, and manuals, while hardware refers to materials, machines, workspaces, and structures (Robertson et al., 2002). According to safety climate theory, management is critical, and the distinction between formal and informal policies is an important idea in the literature. The greater the congruence between written policies imposed by top management and informal practises established by supervisors, the higher the degree of congruence between workers' preferences and perceptions (Huang et al., 2013). Researchers who studied safety climate paid less attention to hardware.

However, as components of work systems, both software and hardware interactions are critically important and can have a significant impact on safety outcomes. Sociotechnical systems, which are relevant to macro ergonomics (Karsh et al., 2014), and safety climate are two important areas of research in safety and ergonomics that each have their own strengths and weaknesses despite their fundamental similarities. The notion that most workplace safety problems can be addressed by improving interactions between workers and supervisors is a shortcoming of current safety climate research. Although communication within an organisation is essential, technological issues may arise that cannot be resolved through communication alone.

According to Murphy et al. (2014), macro ergonomics, using sociotechnical systems theory, takes a broader approach to safety when good communication is necessary but not sufficient for building a safe and happy work environment. The result of a work system with components working together is safety, such as personnel and technology, so no single subsystem, such as personnel or technology, is solely responsible for the safety of the overall system and employees. The only drawback to macro ergonomics appears to be the lack of well-defined techniques for distributing security responsibility among various subsystems. Because macro ergonomics and safety climate have conceptual overlap, it is argued that strengths in one area can be used to compensate for deficiencies in the other. Therefore, based on some of the previous research findings, the following hypothesis was formulated

H1: There is a significant relationship between safety technology and macro ergonomics with the safety climate in the construction industry.

Methodology

The target group is construction workers who work in the construction industry in the Kuala Lumpur region. The list of construction companies was taken from the list of licensed construction companies at the Construction Industry Development Board, CIDB Malaysia. The total number of local construction workers registered with the CIDB in Kuala Lumpur is 11,060 construction contractors. Based on the population, the sample size of 375 was determined based on the table of Krejcie & Morgan (1970). The sample was selected using the probability sampling method.

Data collection was conducted by means of a questionnaire via Google Form. The items measuring safety technology, macro ergonomics, and safety climate were mainly adopted from previous studies. The items for measuring safety technology were adopted from Choi et al. (2017). For the macro ergonomic items, the instrument of Realyvásquez et al. (2015)

was used. The safety climate variables were adopted from Wu et al. (2019). A 6-point Likert scale was used for all items. All analyses were conducted using IBM SPSS version 26.

Results and Discussion

Response Rate

375 questionnaires were distributed and only 370 questionnaires were collected, which corresponds to a response rate of 98.7%.

Demographic of Respondents

Most of the respondents were male (86.8%) compared to female (13.2%). Most of them were married (61.6%) compared to single (35.7%) and only 2.7% of the respondents were divorced or widowed. Most of them have MCE/SPM/SPMV as the highest educational degree (62.7%), 28.6% have diploma degree, 4.6% have elementary school degree and only 4.1% of respondents have HSC/STPM.

The largest percentage in the age characteristics of the respondents was 45.9% and was between 25 and 34 years old, and 28.1% of the construction workers in this group of respondents were between 35 and 44 years old. The youngest age of this group was 15.1% of the total number of respondents. Only 10.3% and 0.5% were between 45 and 54 years old and over 55 years old, respectively.

The majority of the respondents reported being Malays (48.4%), 11.4% of the respondents were Chinese, and 8.4% of the respondents were Indian. Meanwhile, 31.9% of the respondents were classified as "Other" because some of them were foreigners or their race was not mentioned in the questionnaire, such as Bajau, Serani and others.

The majority of the workers who participated in this research were skilled workers, which was 43.2% of the total number of respondents. 22.4% of them were trained professionals, and 12.7% were administrative workers, which is the same percentage as lower management construction workers. In contrast, only 8.4% of the respondents were upper management employees.

Hypothesis Testing

Multiple regression was conducted to test whether the two predictors, safety technology and macro ergonomics, significantly predicted employee safety climate. The result of the regression analysis can be found in Table 1. An R-squared (R²) of 71.4% explained safety climate by safety technology and macro ergonomics. Another 28.6% (100% - 71.4%) cannot be explained in this study.

Table 1: *Multiple Regression Results*

Model	Unstandardized		Standardized	t	Sig
	Coefficients				
	B	Std. Error	Beta		
(Constant)	.199	.172		1.153	.000
Safety Technology	.265	.047	.257	5.606	.007
Macroergonomics	.684	.050	.627	13.674	.001

Note:

F value = 13.15 at $p < 0.000$

R = 0.845

R² = 0.714

Predictors = (Constant), Safety Technology, Macroergonomics

Dependent variable = Safety Climate

Discussion

The results show that there is a positive significant relationship between safety technology, macro ergonomics and safety climate. This implies that management, especially in the construction industry in Malaysia, must fulfill their obligations to ensure that the safety climate also has a positive impact on all workers. Proper and up-to-date use of safety technology in the construction industry is strongly recommended

This result shows that construction workers who are influenced by a good safety climate use safety technology well during their work. In addition, construction workers who have good human organization can create a better working environment, thus increasing the safety level and reducing the risk of accidents.

The deliberate use of the right safety technology within the context of the right sociotechnical management system has a high probability of preventing injuries on the job site. This is because when workers feel unsafe or overwhelmed with their work, it can affect them by performing their high-risk tasks, exposing them to injuries or accidents on the jobsite

The findings of Raslim et al. (2020) show that some companies are not taking full advantage of the safety equipment provided, even though Malaysian construction industry professionals have recognised the potential of safety improvement through Building Information Modelling (BIM) as one of their safety equipment. The study by Halim et al. (2020) found that due to the lack of suitable building land in Malaysia, most developers focus on building high-rise buildings rather than low-rise buildings and that due to the discrepancies

This leads to the technology being able to be used in high-risk areas. The study by Juhari and Ariffin (2020) on Malaysian Mass Rapid Transit (MRT) has also shown the importance of safety engineering, i.e., the safety conditions of the equipment used, the design of safety precautions for employees, and the knowledge of the proper use of this equipment or technology. Therefore, the company must provide an effective manual for the use of the technology or equipment.

Conclusion

The aim of this study was to investigate the relationship between safety engineering, macro ergonomics and safety climate in the construction industry. The results show that both independent variables have a significant positive relationship with the dependent variable, safety climate.

This study has some limitations. Although this study was conducted in a large population, it was limited to Kuala Lumpur only. Therefore, further studies could be conducted in at least two states in Malaysia to obtain more meaningful results on the relationship between safety technology, macro ergonomics and safety climate. In addition, the industry involved is not

limited to one type of industry. It can be more than one type of industry, but the companies must fall into the high-risk industry category, such as construction and manufacturing, to see the similarities and differences in the results.

In addition, the findings suggest that it is important to apply both hardware and software applications carried out by companies to all workers according to their role and specialisation. The breaches are due to the lack of awareness of the benefits of safety technology. In recent years, there are more and more advanced technologies for security. They can be energy-saving, well-planned activities, more efficient to reduce the risk of injuries on construction sites. As for the safety technology used, for example, Building Information Modelling (BIM) and an updated version of AutoCAD for engineers can be used to draw building plans more accurately.

Regarding macro ergonomics, employers should provide specific training for certain employees. For example, training on the use of safety equipment for workers only, or leadership training specifically for experienced safety officers. In this way, the practical implications can be used to increase or improve the application of the safety climate in the construction sector.

References

- Awolusi, I., Marks, E., & Hallowell, M. (2018). Wearable technology for personalized construction safety monitoring and trending: Review of applicable devices. *Automation in Construction*, 85, 96–106. <https://doi.org/10.1016/j.autcon.2017.10.010>.
- Ayob, A., Shaari, A. A., Zaki, M. F. M., & Munaaim, M. A. C. (2018, April). Fatal occupational injuries in the Malaysian construction sector—causes and accidental agents. *In IOP Conference Series: Earth and Environmental Science*. 140 (1), p. 012095.
- Chan, A. P., Javed, A. A., Wong, F. K., & Hon, C. K. (2014). Improving safety communication of ethnic minorities in the construction industry of Hong Kong. *ICCREM 2014: Smart Construction and Management in The Context of New Technology* (pp. 463–474)
- Chang, L. S. (2012). A study to investigate the influence of Work Safety Scale (WSS) on compliance with safety behavior among foreign workers in construction industry. eTheses.uum.edu.my.
- Choi, B., Hwang, S., & Lee, S. (2017). What drives construction workers' acceptance of wearable technologies in the workplace: Indoor localization and wearable health devices for occupational safety and health. *Automation in Construction*, 84, 31–41. <https://doi.org/10.1016/j.autcon.2017.08.005>
- Cohen, A. (1977). Factors in successful occupational safety programs. *Journal of Safety Research*, 9, 168–178.
- Dalpiaz, (2013). Adaptive socio-technical systems: A requirements-based approach. *Requirements Eng*, 18, 1–24.
- DeJoy, D. M., Della, L. J., Vandenberg, R. J. & Wilson, M. G. (2010). Making work safer: Testing a Model of Social Exchange and Safety Management. *Journal of Safety Research*, 41 (2): 163 –171. doi:10.1016/j.jsr.2010.02.001.
- DeJoy, D. M., Schaffer, B. S., Wilson, M. G., Vandenberg, R. J., & Butts, M. M. (2004). Creating safer workplaces: Assessing the determinants and role of safety climate. *Journal of Safety Research*, 35 (1), 81–90. doi:10.1016/j.jsr.2003.09.018.

- Dwiyanti, D. O., Zadry, H. R., & Jumeno, D. (2019). Framework assessment of the potential hazards in the industry using macroergonomics. *International Journal of Progressive Sciences and Technologies*, 15 (2), 209-2016.
- Gamil, Y., Abdullah, M. A., Abd Rahman, I., & Asad, M. M. (2020). Internet of things in construction industry revolution 4.0: Recent trends and challenges in the Malaysian context. *Journal of Engineering, Design and Technology*, 18 (5), 1091 – 1102.
- Gao, Y., Li, H., & Luo, Y., (2015). An empirical study of wearable technology acceptance in healthcare. *Ind. Manag. Data System*, 115 (9) 1704–1723, <http://dx.doi.org/10.1108/IMDS03-2015-0087>.
- Ghazali, Abd Aziz. (2018). The relationship between safety climate, safety communication, and work environment with unsafe behaviour among construction workers - eTheses. uum.edu.my. https://doi.org/http://etd.uum.edu.my/7440/1/s809066_01.pdf
- Griffin, M. & Neal, A. (2000). Perceptions of safety at work: A framework for linking safety climate to safety performance, knowledge, and motivation. *Journal Occupational Health Psychology*, 5, 347-358.
- Guldenmund, F. W. (2000). The nature of safety culture: A review of theory and research. *Safety Science*, 34 (1-3), 215-257.
- Hale, A. R. (2003). Safety management in production. *Human Factors and Ergonomics in Manufacturing*, 13 (3), 185–201. doi:10.1002/hfm.10040.
- Hale, A. R., & Hovden, J. (1998). Management and culture: The third age of safety. In *Occupational Injury: Risk, Prevention and Intervention*, edited by A.-M., Feyer and A. Williamson. 129–165. London: Taylor and Francis.
- Halim, N. N. A. A., Jaafar, M. H., Anuar, M., Kamaruddin, N. A. K., & Jamir, P. S. (2020). The causes of Malaysian construction fatalities. *Journal of Sustainability Science and Management*, 15 (5), 236-256.
- Hamid, A. R. A., Azhari, R., Zakaria, R., Aminudin, E., Jaya, R. P., Nagarajan, L., Yunus, R. (2019). Causes of crane accidents at construction sites in Malaysia. *IOP Conference Series: Earth and Environmental Science*.
- Hendrick, H.W., (1997). Organizational design and macroergonomics. In: Salvendy, G. (Ed.), *Handbook of Human Factors and Ergonomics.*, 2nd ed. Wiley, New York, pp. 594 636.
- Huang, Y.H., Zohar, D., Robertson, M.M., Garabet, A., Lee, J., Murphy, L.A., (2013). Development and validation of safety climate scales for lone workers using truck drivers as exemplar. *Transportation Research Part F: Traffic Psychology and Behavior* 17, 5–19.
- Isla Diaz, R., & D. Diaz Cabrera (1997). Safety climate and attitude as evaluation measures of organizational safety. *Accident Analysis and Prevention*, 29 (5): 643–650. doi:10.1016/S0001-4575(97)00015-8.
- Jiang, H., Chen, X., Zhang, S., Zhang, X., Kong, W., Zhang, T. (2015). Software for wearable devices: Challenges and opportunities. *Proceedings of Computer Software and Applications Conference (COMPSAC)*, IEEE, Taichung, Taiwan, 2015, <http://dx.doi.org/10.1109/COMPSAC.2015.269>.
- Jin, Z., Gambatese, J., Liu, D., Dharmapalan, V. (2019). Using 4D BIM to assess construction risks during the design phase, engineering, construction and architectural management.
- Juhari, M. L., & Arifin, K. (2020). Validating measurement structure of materials and equipment factors model in the MRT construction industry using confirmatory factor analysis. *Safety Science*, 131, 104905.
- Karsh, B.-T., Waterson, P., Holden, R.J., (2014). Crossing levels in systems ergonomics: A framework to support ‘mesoergonomic’ inquiry. *Applied Ergonomics* 45, 45–54.

- Kleiner, B.M., (2006). Macroergonomics: analysis and design of work systems. *Applied Ergonomics* 37, 81–89.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30 (3), 607-610.
- Lau, S. E. N., Aminudin, E., Zakaria, R., Saar, C. C., Abidin, N. I., Roslan, A. F., ... & Shaharuddin, A. B. (2019). Revolutionizing the future of the construction industry: strategizing and redefining challenges. *Transactions on the Built Environment*, 192, 105-111.
- Mahmud, S. H., Assan, L., & Islam, R. (2018). Potentials of internet of things (IoT) in Malaysian construction industry. *Annals of Emerging Technologies in Computing (AETiC)*, Print ISSN, 2516-0281.
- Mearns, K., Whitaker, S. M., & Flin, R. (2003). Safety climate, safety management practice and safety performance in offshore environments. *Safety Science*, 41 (8): 641–680. doi:10.1016/S0925-7535(02)00011-5.
- Meliá, J.L., Mearns, K., Silva, S., Lima, M.L. (2008). Safety climate responses and the perceived risk of accidents in the construction industry. *Safety Science*, 46, 949– 958.
- Murphy, L. A., Robertson, M. M., & Carayon, P. (2014). The next generation of macroergonomics: Integrating safety climate. *Accident Analysis & Prevention*, 68, 16–24. <https://doi.org/10.1016/j.aap.2013.11.011>
- Nnaji, C., Gambatese, J., Karakhan, A., Eseonu, C. (2019). Influential safety technology adoption predictors in construction. *Eng. Construct. Architect. Manag.* 26 (11), 2655–2681. <https://doi.org/10.1108/ECAM-09-2018-0381>.
- Raslim, F. M., Padzil, L. H., & HL, Tajul. A. (2020). Using building information modelling (BIM) to improve safety performance in Malaysian construction industry. *International Journal of Advanced Research in Engineering and Technology (IJARET)*.
- Realyvásquez, A., Maldonado-Macías, A. A., García-Alcaraz, J. L., & Blanco Fernández, J. (2015). Effects of organizational macroergonomic compatibility elements over manufacturing systems' performance. *Procedia Manufacturing*, 3, 5715–5722. <https://doi.org/10.1016/j.promfg.2015.07.807>.
- Robertson, M.M., Kleiner, B.M., O'Neill, M.J., (2002). Macroergonomic methods: assessing work system processes. In: Hendrick, H.W., Kleiner, B.M. (Eds.), *Macroergonomics: Theory, methods, and applications*. Lawrence Erlbaum Associates Publishers, New Jersey, pp. 67–96.
- Saari, J. (1990). On strategies and methods in company safety work: From informational to motivational strategies. *Journal of Occupational Accidents*, 12 (1–3): 107–117.
- Sinclair, R. R., Martin, J. E. & Sears, L. E., (2010). Labor unions and safety climate: Perceived union safety values and retail employee safety outcomes. *Accident Analysis and Prevention*, 42, 1477-1487.
- Tehrani K., A. Michael, A., (2014). Wearable technology and wearable devices: everything you need to know, *Wearable Devices Magazine*, <http://www.wearabledevices.com/whais-a-wearable-device>.
- Wu, X., Gao, J., Li, Y., & Wu, C. (2019). Development of a safety climate scale for geological prospecting projects in China. *International Journal of Environmental Research and Public Health*, 16 (6), 1082. <https://doi.org/10.3390/ijerph16061082>.
- Zhou, Z., Irizarry, J., & Li, Q. (2013). Applying advanced technology to improve safety management in the construction industry: a literature review. *Construction Management and Economics*, 31(6), 606–622. doi:10.1080/01446193.2013.798423.

**A CONCEPTUALIZATION OF THE EFFECTIVENESS OF THE UNIVERSITIES
INTERNSHIP PROGRAM: THE FACILITATING ROLE OF THE
ACADEMIC MENTOR**

Muhamad Ali Imran KAMARUDIN¹, Syamsuriana SIDEK², Hasnizam HASAN³, Tunku Nur Atikhah TUNKU ABAIDAH⁴ and Mohamad Zakuan TUAN IBHARIM⁵

^{1,3,4,5}*Universiti Utara Malaysia*

²*Universiti Malaysia Kelantan*

Abstract. Academic mentor holds a significant role in the development of students in the university including facilitation of the students' internship program in the industry. However, often the role of academic mentor is undermined whereby it is only restricted at only the university level. Thus, the aim of this research is to examine the facilitating role of academic mentor in increasing the likelihood of effectiveness of the university's internship program among students. This research used a primary data collection procedure of structured questionnaire to collect the data and Partial Least Square of Structural Equation Modelling (PLS-SEM) to analyze and test the developed hypothesis. As a practical implication, this research offers useful insight for the university's management to revisit/extend the role of academic mentor and play a proactive role in achieving the effectiveness of the internship program. In addition, students will benefit from the program as the academic mentor's role able to link up the missing gap between knowledge acquired in the university and the application exposed in the industry.

Keywords: Academic mentor, internship program, students' development, effectiveness, university.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: aliimran@uum.edu.com

Introduction

The Internship Program in University

The internship program in the university is a program which designed to help the students to relate their classroom learning to the practical knowledge and skills in the industry (Anjum, 2020; Hardie, Almeida, & Ross, 2018; Wan, Yang, Cheng, & Su, 2013). According to Hardie et al. (2018), the program is structured to provide the students with practical skills and exposure that can be aligned with students' career aspiration.

The program involved three main entities in the form of the university or the educational institution, the employer or (also known as mentor industry) and the student itself. Tovey (2009) described the internship program as a collaborative effort between these three entities in providing the meaningful experiences to students applying theories and practices discussed in the classroom. Past studies discussed each entity's roles in achieving the objectives of the internship program, thus reflecting the effectiveness of the program structured.

Based on the university's teaching philosophy, the fundamental objective is for the students to develop academic skills and values beyond their subject content (Wong & Chiu, 2019). Therefore, the university holds a significant role in structuring an impactful internship program for the students. Febriani Putri, Maha Putri, Purnamasari, Puspaningtyas and Narullia (2020) posited that the university's role includes designing an internship period with a system or mechanism similar to other scientific courses, and seeking appropriate placement of internship students in institutions and divisions for the students.

While from the industry mentor perspective, they are required to render their expertise and leadership through role modeling in various areas; enthusiasm, ethics, communication skills, work commitment and customer centeredness (Hardie et al., 2018; Solnet, Kralj, Kay, & DeVeau, 2009). While the students are demanded to give their full commitment in the program by enhancing both internal motivation and self-determination while showing the good discipline and professionalism to support the learning outcomes of the internship program (Kapareliotis, Voutsina, & Patsiotis, 2019; Prabhu, 2016; Shoenfelt, Kottke, & Stone, 2012).

However, meeting everyone's expectation in relation to the implementation and the outcome of the university's internship program could prove challenging. Many studies reported unfavourable circumstances surrounding students' internship program including dissatisfaction over students' quality and personality, lack of coordination between employer and the university (Febriani Putri et al., 2020; Zreen, Farrukh, Nazar, & Khalid, 2019; Pradhitya, Kuswandi, & Wedi, 2018; Negrut, Mihartescu, & Mocan, 2015).

Therefore, it is crucial to focus on the aforementioned issues deliberately and it is suggested that the role of the lecturer (or also known as the academic mentor) can be further investigated in solving the problem in regards with the internship program (Febriani Putri et al., 2020; Prabhu, 2016; Negrut et al., 2015). In fact, Prabhu (2016) highlighted that the academic mentor should act to facilitate the students' learning process, from the university until the program ends.

Problem Statement

The issue regarding internship programs is not an emergent issue. Numerous prior studies have identified the problems that arise during the internship program (e.g., Zreen et al., 2019; Sawani et al., 2016; Negrut et al., 2015). As highlighted by Febriani Putri et al. (2020), many studies found that lack of knowledge and practical skills, lack of soft skills, and university's internship system are the main problems that arise during internship programs. While from the employer perspectives, issues pertaining to lack in coordination and communication with the university as well as students' lack in soft skills including communication skills, professionalism and competencies are the common issues that hinder the effectiveness of the program (Febriani Putri et al., 2020; Praditya et al., 2018; Negrut et al. 2015).

Besides that, the roles of the academic mentor as an advisor are seen to be a crucial entity to link the nexus between students and effectiveness of internship programs. A mentor is believed not only important to enhance the knowledge and skills among students, but also offers personal support and professional socialization to facilitate success in education (Oommen, 2018). But, unfortunately, lack of current studies emphasizes on academic mentor roles as mediating among educational institutions, student, industry and effectiveness of internship programs. Hence, to properly address this issue, this research aims to examine the facilitating role of the academic mentor in increasing the likelihood of effectiveness of the university's internship program among students.

Objectives of the Study

The objectives of this project are;

1. To examine the significant roles of academic mentor to facilitate the effectiveness of internship program done by the universities
2. To propose a recommendation based on the findings gathered from this research project.

Literature Review

The Internship Program in University

The Internship program is one of the approaches upheld as the High Impact Educational Practices (HIEPs). The Ministry of Education (MOE, 2019) asserted that internship program involved the universities' students to get a taste of the kinds of work environments they might be interested in after graduating from college. There is a correlation between students' participation in college internships and their academic achievements. Most importantly, the platform helps students to improve their professional and soft skills in preparation for their future career-path.

Based on the university's teaching philosophy, the fundamental objective is for the students to develop academic skills and values beyond their subject content (Wong & Chiu, 2019). Therefore, the university holds a significant role in structuring an impactful internship program for the students. Febriani Putri et al. (2020) posited that the university's role includes designing an internship period with a system or mechanism similar to other scientific courses, and seeking appropriate placement of internship students in institutions and divisions for the students.

While from the industry mentor perspective, they are required to render their expertise and leadership through role modeling in various areas; enthusiasm, ethics, communication skills, work commitment and customer centeredness (Hardie et al., 2018; Solnet, Kralj, Kay, &

DeVeau, 2009). While the students are demanded to give their full commitment in the program by enhancing both internal motivation and self-determination while showing the good discipline and professionalism to support the learning outcomes of the internship program (Kapareliotis, Voutsina, & Patsiotis, 2019; Prabhu, 2016; Shoenfelt, Kottke, & Stone, 2012).

The Role of Academic Mentor

University lecturer or also known as academic mentor holds a wide spectrum role in educating and developing the students in terms of knowledge, skills, values and also their personality (Wong & Chiu, 2019). The role of academic mentor is not limited to the teaching and learning only, but it also covers the aspects of research, supervision, management, administration and many more (Han, Yin, Wang, & Zhang, 2020).

On one hand, in developing the students, learning in the classroom are expected to promote students' engagement and attainment from an effective pedagogical learning approach delivered by the academic mentors (Wong & Chiu, 2019; Evans, Mujis, & Tomlinson, 2015). According to Wong and Chiu (2019), the fundamental objective in university's teaching is for the students to develop academic skills and values beyond their course content.

While on the other hand, other dimensions which can stimulate the students learning and development is through their programs structured by the university including the internship program (Hardie, Almeida, & Ross, 2018) and the role of academic mentor is extended to support the learning of students attending the internship program.

The academic mentor could act as a facilitator in allowing the students' learning process to be take place smoothly and ease the students' transition from the academic perspective to the professional world ((Febriani Putri et al., 2020; Pennanen, Heikkinen, & Tynjala, 2020; Faikhamta & Clarke, 2019; Prabhu, 2016; Clarke, Triggs, & Nielsen, 2014; Hudson, 2013). Pennanen et al. (2020) highlighted that the academic mentor helps to facilitate the students' internship program while improving their professional development. While, Prabhu (2016) stated that role of facilitator is very much essential to facilitate any learning process by generating curiosity, managing the transition and also retaining academic orientation.

Furthermore, Clarke et al. (2014) stressed that there were 11 roles can be played by the academic mentor to facilitate and improve the internship program which are; 1) providing feedback, 2) profession advisor, 3) practice modelers, 4) supporter of reflection, 5) gleaners of knowledge, 6) sources of context, 7) conveners of relation, 8) agents of socialization, 9) advocates of the practical, 10) abiders of change, and 11) teachers of children. As such, a wide spectrum of roles which can be played by the academic mentors could boost the dynamic of the role played by the three main entities in the internship program while solving the issues surrounding the program attended by the university's students.

Research Methodology

This paper emphasizes on quantitative approach in employing its methodology. From the quantitative research perspective, Sekaran and Bougie (2019) asserted that it is suitable to use a quantitative approach to measure a relationship between studied variables using hypothesis testing technique. In this research, the information will be gathered on the role of academic

mentor in facilitating the internship program conducted by the universities. Thus, the effectiveness of the internship program attended by the students can be measured.

The data for this study is gathered using self-administered questionnaire. Survey questionnaire is known as one of the most universal methods in data collection and convenient for data analysis process later on (Sekaran & Bougie, 2019; Sekaran, 2006). In addition, the design of the questionnaire using the adaptive strategy where it helps to address content validity issue which the extent the questions could provide adequate coverage of the topic studied.

The respondents would be among the final year students of the universities in Malaysia who have completed or in the midst of the internship program. The data gathered will be analysed using the latest version of software programs namely Partial Least Square (Smart-PLS 3.0) specifically Structural Equation Modelling (PLS-SEM) and Statistical Package for the Social Sciences (SPSS 24.0).

Research Significance and Implication

Similar to the Triple Helix Model of innovation, this project aims to link the interactions among three different entities; academia (educational institutions/university), industry and students. This project also may foster economic and social development, as described in concepts such as the knowledge economy and knowledge society.

In Malaysia, the 12th Malaysia Plan (12MP) outlined the main objectives to address current issues, at the same time, restore and revitalize the country's socio-economic development for sustainability and prosperity. The 12MP is a development plan with the objective of 'A Prosperous, Inclusive, Sustainable Malaysia' and it covers the first half of the implementation of the Shared Prosperity Vision (SPV) 2030. The 12MP is also coordinated with the Sustainable Development Goals (SDG) under Sustainability Goal 4, which is quality education. This illustrates the need for industry involvement in the improvement of the existing education system.

Therefore, this piece of research has a practical implication especially for the university in designing their internship program in the near future. This research will enable the universities to understand the significant role of the mentor academic which can facilitate the internship program conducted, thus realizing the effectiveness of the program. From the industrial perspective, this research implicates a better collaboration between university-industry in supporting the economic and socio-economic agenda of the country as per Kyung, Duk, Jeoung, and Kyo's (2016) claim. The university is the place to produce knowledgeable, professional and competent human capital while the industry acts as an accelerator of the economic growth.

Last but not least, implication of this research can also be seen among students whereby the internship program which facilitated by the mentor academic could equip them with necessary knowledge and skills including soft skills which are required by the industry (Pennanen et al., 2020; Hardie et al., 2018), thus increase the probability of having a smooth professional transition after their graduation. As such, the national issue of graduate employability which has been critical for a long time could be addressed indirectly.

Thus, several steps are prerequisite to be taken to meet the needs of future talent, including improving the quality of academic and training programs, ensuring more equitable learning

outcomes, leveraging emerging technologies and strengthening governance. Hence, the implementation of all these efforts requires integration in the industry-academia network. Strengthening the network is seen as critical for the quality reform of today's graduates towards increasing efficiency through the latest professional and practical education and skills.

Based on these justifications, this project could be one of the indicators of facilitating the role of the academic mentor in increasing the possibility of effectiveness of the university's internship program among students in order to benefit the country, the academia (educational institutions/ university), industry and students.

Reference

- Di Gregorio, A., Maggioni, I., Mauri, C., & Mazzucchelli, A. (2019). Employability skills for future marketing professionals. *European management journal*, 37(3), 251-258.
- Evans, C., Mujs, D., & Tomlinson, D. (2015). Engaged student learning: High impact strategies to enhance student achievement.
- Faikhamta, C., & Clarke, A. (2019). Thai cooperating teachers' motivations and challenges in supervising student teachers during their internship program. *Kasetsart journal of social sciences*, 40(3), 567-573.
- Febriani Putri, S., Maha Putri, D., Purnamasari, F., Puspan- ingtyas, M. P., & Narullia, D. (2020). Composing Professional Human Resource: The Necessity of Excellent Internship Mentoring System. *KnE Social Sciences*, 4(6), 935-944.
- Han, J., Yin, H., Wang, J., & Zhang, J. (2020). Job demands and resources as antecedents of university teachers' exhaustion, engagement and job satisfaction. *Educational Psychology*, 40(3), 318-335.
- Hardie, G., Almeida, S., & Ross, P. J. (2018). Value of Industry Mentoring and Resource Commitment to the Success of an Undergraduate Internship Program: A Case Study from an Australian University. *International Journal of Work-Integrated Learning*, 19(2), 155-168.
- Hudson, P. (2013). Mentoring as professional development: "Growth for both" mentor and mentee. *Professional Development in Education*, 39(5), 771-783.
- Hurst, J. L., & Good, L. K. (2010). A 20-year evolution of internships: Implications for retail interns, employers and educators. *The International Review of Retail, Distribution and Consumer Research*, 20(1), 175-186.
- Hussien, F. M. & Lopa, M. L. (2018). The determinants of student satisfaction with internship programs in the hospitality industry: A case study in the USA. *Journal of Human Resources in Hospitality & Tourism*, 17 (4), 502-527.
- Kapareliotis, I., Voutsina, K., & Patsiotis, A. (2019). Internship and employability prospects: assessing student's work readiness. *Higher Education, Skills and Work-Based Learning*, 9 (4), 538-549.
- Kyung, L. H., Duk, Y. H., Jeoung, K. S., & Kyo, S. Y. (2016). Factors affecting university–industry cooperation performance: Study of the mediating effects of government and enterprise support. *Journal of Science and Technology Policy Management*. 7(20), 233-254.
- Le, Van-Quy & Tran-Chi, Vinh-Long. (2019). Structural equation modelling analysis for internship satisfaction of Vietnam business students. *International Journal of Education Economics and Development*, 10 (3), 258 – 275.

- Lian, J. K. M., Foo, Z. Y. & Ling, F. Y. Y. (2018). Value of internships for professional careers in the built environment sector in Singapore. *Engineering, Construction and Architectural Management*, 25 (1), 77-89.
- Ministry of Education (MOE, 2019). Guidebook on Higher Impact Educational Practices (HIEPs) in General Studies.
- Negrut, M. L., Mihartescu, A.-A., & Mocan, M. L. (2015). Aspects of the internship's importance in human resource training. *Procedia - Social and Behavioral Sciences*, 191, 308–314.
- Oommen, N. M. (2018). The role of teachers as academic mentors. *International Journal of Innovative Research in Science, Engineering and Technology*, 7 (7), 7651- 7654.
- Pennanen, M., Heikkinen, H. L., & Tynjala, P. (2020). Virtues of mentors and mentees in the Finnish model of teachers' peer-group mentoring. *Scandinavian journal of educational research*, 64(3), 355-371.
- Prabhu, B. V. (2016). Success of student internship in engineering industry: a faculty perspective. *Higher Education for the future*, 3(2), 164-182.
- Pradhitya, V. E. C., Kuswandi, D., & Wedi, A. (2018). Persepsi mahasiswa pada kajian dan praktik lapangan jurusan Teknologi Pendidikan. *JINOTEP (Jurnal Inovasi dan Teknologi Pembelajaran): Kajian dan Riset Dalam Teknologi Pembelajaran*, 4(2), 63-69.
- Sawani, Y., Abdillah, A., Rahmat, M., Noyem, J. A., & Sirat, Z. (2016). Employer's satisfaction on accounting service performance: A case of public university internship program. *Procedia - Social and Behavioral Sciences*, 224, 347–352.
- Sekaran, U., & Bougie, R. (2019). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Shoenfelt, E. L., Kottke, J. L., & Stone, N. J. (2012). Master's and undergraduate industrial/organizational internships: Data-based recommendations for successful experiences. *Teaching of Psychology*, 39(2), 100-106.
- Silva, P., Lopes, B., Costa, M., Melo, A. I., Dias, G. P., Brito, E., & Seabra, D. (2018). The million-dollar question: can internships boost employment?. *Studies in Higher Education*, 43(1), 2-21.
- Solnet, D., Kralj, A., Kay, C., & DeVeau, L. (2009). A lodging internship competency model: Enhancing educational outcomes through work integrated learning. *Journal of Hospitality & Tourism Education*, 21(4), 16-24.
- Taylan, F., & MUYCO, P. (2018). Online Facilitation of Field Instruction for the Social Work Programs of UP Open University. *International Journal on Open and Distance e-Learning*, 4 (1), 45-56.
- Tovey, J. (2001). Building connections between industry and university: Implementing an internship program at a regional university. *Technical communication quarterly*, 10(2), 225-239.
- Wan, C. S., Yang, J. T., Cheng, S. Y., & Su, C. (2013). A longitudinal study on internship effectiveness in vocational higher education. *Educational Review*, 65(1), 36-55.
- Weible, R. (2009). Are universities reaping the available benefits internship programs offer?. *Journal of education for business*, 85(2), 59-63.
- Wong, B., & Chiu, Y. L. T. (2019). Let me entertain you: The ambivalent role of university lecturers as educators and performers. *Educational Review*, 71(2), 218-233.
- Zreen, A., Farrukh, M., Nazar, N., & Khalid, R. (2019). The role of internship and business incubation programs in forming entrepreneurial intentions: An empirical analysis from Pakistan. *Central European Management Journal*, 27 (2), 97-113.

**KAJIAN KONSEPTUAL IMPAK BANTUAN KERAJAAN DAN ORIENTASI
KEUSAHAWANAN KE ATAS KOMITMEN EKSPORT DI KALANGAN KOPERASI
DI MALAYSIA**

Azahari RAMLI¹, Shahrina OTHMAN², Muhamad Ali Imran KAMARUDIN³, Mohd
Salahudin SHAMSUDIN⁴, Khairunnisak AHMAD SHAKIR¹

^{1,2,3,4}Universiti Utara Malaysia

⁵Universiti Islam Antarabangsa Sultan Abdul Halim Muad'zam Shah

Abstrak

Koperasi merupakan sektor yang signifikan kepada sosio ekonomi masyarakat dan negara. Dilaporkan bahawa pada tahun 2020 terdapat sebanyak 14,629 buah koperasi yang dianggotai seramai 6.51 juta anggota dengan perolehan sebanyak RM41.45billion. Walau bagaimanapun jumlah yang menjalankan kegiatan eksport adalah rendah jika jumlah koperasi yang berdaftar dengan Matrade iaitu sebanyak 36 buah koperasi. Untuk itu usaha perlu dijalankan untuk meningkatkan bilangan koperasi dalam kegiatan eksport dan kajian ini berpandangan ia perlu dimulai dengan melihat factor-faktor yang dapat meningkatkan komitmen eksport di kalangan koperasi di Malaysia. Bantuan kerajaan dan orientasi keusahawanan adalah dua factor atau pembolehubah yang diyakini mampu memberikan impak kepada komitmen eksport. Sehubungan itu, kajian empirikal perlu dilakukan bagi menguji impak bantuan kerajaan dan orientasi keusahawanan ke atas komitmen eksport di kalangan koperasi di Malaysia.

Katakunci: Koperasi, Komitmen Eksport, Bantuan Kerajaan, Orientasi Keusahawanan.

*Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: arie@uum.edu.my

Pengenalan

Koperasi merupakan sektor yang signifikan kepada sosio ekonomi masyarakat dan negara. Dilaporkan bahawa pada tahun 2020 terdapat sebanyak 14,629 buah koperasi yang dianggotai seramai 6.51 juta anggota dengan perolehan sebanyak RM41.45billion (Suruhanjaya Koperasi Malaysia, 2021). Dengan perolehan sebanyak ini, sebahagian keuntungan dapat dikongsi dengan anggota dalam bentuk dividen. Pihak koperasi perlu sentiasa proaktif, inovatif dan berani mengambil risiko untuk melakukan strategi perniagaan yang dapat meningkatkan perolehan dan keuntungan. Untuk itu koperasi disarankan untuk mengembangkan perniagaan ke pasaran luar negara.

Pasaran luar negara merupakan pasaran yang mempunyai lebih banyak manusia dan kuasa membeli yang lebih besar berbanding pasaran dalam negara. Untuk memasuki pasaran ini, aktiviti yang paling asas dapat dijalankan oleh pihak koperasi ialah aktiviti eksport. Ini adalah kerana pihak koperasi masih boleh untuk menjalankan perniagaan di dalam negara dan memerlukan dana pelaksanaan yang lebih rendah berbanding lain-lain kaedah ke pasaran antarabangsa.

Walau bagaimanapun, kajian ini berpendapat prestasi eksport di kalangan koperasi di Malaysia masih rendah. Usaha perlu dilakukan supaya koperasi dapat mengembangkan pasaran keluar negara yang lebih luas dan lebih berpotensi berbanding pasaran dalam negara. Pada masa kini, hampir kesemua koperasi menumpukan pemasaran produk dan perkhidmatan masing-masing ke pasaran dalam negara. Ini menyebabkan berlaku persaingan sesama koperasi terutama koperasi yang menawarkan produk dan perkhidmatan yang sama. Keadaan ini sudah tentu akan menghadkan perolehan koperasi dan seterusnya boleh menjejaskan survival koperasi berkenaan.

Sudah tiba masanya untuk koperasi mengembangkan sayap perniagaan masing-masing ke pasaran luar negara. Melalui platform e-commerce yang memudahkan urusan B2B dan B2C serta galakan-galakan khas yang disediakan oleh pihak kerajaan, maka matlamat untuk ke arah tersebut dijangka mampu untuk dicapai. Walau bagaimanapun, sebelum perkara-perkara yang disebutkan tadi dapat direalisasikan, kajian perlu dilakukan untuk melihat komitmen eksport di kalangan koperasi dan factor-faktor yang boleh meningkatkan komitmen tersebut.

Penyataan Masalah

Usaha ke arah membangunkan koperasi berteraskan eksport dapat dikesan melalui petikan akhbar bertajuk “Matrade sasar eksport produk koperasi RM100juta (Mohamad, 2016). Berdasarkan kepada petikan berkenaan, Matrade mensasarkan untuk mencapai sasaran berkenaan dalam tempoh dua tahun melalui kerjasama dengan Angkatan Koperasi Kebangsaan Malaysia Berhad (Angkasa). Matrade juga menjangkakan aktiviti eksport koperasi dapat dilakukan pada separuh kedua tahun 2016 dengan tumpuan lebih diberikan kepada pasaran Asean.

Berdasarkan kepada petikan berkenaan, terdapat usaha untuk membangunkan koperasi yang dapat menjalankan aktiviti eksport untuk produk masing-masing keluar negara. Walau

bagaimanapun, adakah sasaran ini dapat dicapai telah menjadi satu tanda tanya. Ini adalah kerana hanya terdapat sebanyak 36 buah 0.0028% koperasi sahaja yang mendaftar dengan Matrade pada tahun 2016 berbanding sebanyak 13,000 buah koperasi yang bernaung di bawah Angkasa. Selain itu, semakan kepada Laporan Ekonomi Sektor Koperasi 2020 ((Suruhanjaya Koperasi Malaysia, 2021) tidak memberikan sebarang maklumat berkaitan aktiviti eksport sector koperasi di Malaysia. Berdasarkan kepada petunjuk-petunjuk ini, kajian ini berandaian bahawa prestasi eksport koperasi masih rendah dan memerlukan pemerhatian khusus daripada semua pihak.

Kajian ini berpendapat, sector koperasi perlu digerakkan untuk menjalankan perniagaan merentasi sempadan negara iaitu pasaran antarabangsa. Tumpuan perniagaan koperasi hanya di pasaran tempatan akan menghadkan pengembangan koperasi dan mengalakkan persaingan sesama mereka. Usaha yang terancang perlu dijalankan bagi membangunkan koperasi yang dapat mengembangkan perniagaan di peringkat antarabangsa. Untuk peringkat permulaan, kajian berkaitan komitmen eksport dan factor-faktor yang boleh membangun dan meningkatkan komitmen tersebut perlu dilakukan di kalangan koperasi di Malaysia. Peningkatan komitmen akan dapat membawa kepada perlaksanaan aktiviti eksport di kalangan koperasi. Ini adalah kerana kajian seperti (Faroque & Takahashi, 2015) telah mendapati komitmen eksport mempunyai pengaruh yang signifikan ke atas prestasi eksport.

Komitmen eksport adalah sanggupan (Willingness) untuk memperuntukan kewangan, pengurusan dan sumber manusia untuk aktiviti eksport (Navarro, Losada, Ruzo, & Jose A, 2010). Komitmen eksport menjelaskan tentang sikap pengurus dan organisasi ke arah aktiviti eksport. Sikap ini dapat diubah dengan cara melihat apakah factor-faktor yang mempengaruhi sikap atau dalam kontek ini komitmen eksport. Dengan lain perkataan, komitmen ekport dapat ditingkatkan melalui factor-faktor ini dan apabila komitmen meningkat, maka pada Ketika itu kita akan dapat melihat peningkatan bilangan koperasi terlibat dalam aktiviti eksport. Antara factor atau pembolehubah yang ingin dikaji pengaruhnya ke atas komitmen eksport adalah bantuan kerajaan dan orientasi keusahawanan.

Sorotan Kesusasteraan

Sorotan Kesusasteraan ini akan menjelaskan maklumat-maklumat awal tentang semua pembolehubah yang terlibat di dalam kajian ini. Penjelasan tersebut adalah seperti berikut:

Komitmen Ekport

Komitmen eksport turut disebut sebagai orientasi eksport. Ia didefinisikan sebagai kesanggupan organisasi perniagaan untuk memperuntukan sumber kewangan, pengurusan dan sumber manusia untuk aktiviti eksport (Navarro, Losada, Ruzo, & Jose A, 2010). Penelitian ke atas komitmen eksport akan dapat mengenalpasti sikap dan gelagat organisasi perniagaan ke arah aktiviti eksport (Garg & De, 2012). Organisasi perniagaan yang komited percaya bahawa aktiviti eksport dapat menyumbang kepada pencapaian matlamat organisasi (Navarro, Acedo, Robson, Ruzo, & Losada, 2010). Oleh itu sebarang usaha yang dilakukan ke atas factor-faktor yang mempengaruhi komitmen eksport akan meningkatkan tahap komitmen berkenaan. Ini

seterusnya akan menjadi factor pendorong kepada organisasi perniagaan untuk mula melakukan aktiviti eksport. Kajian tentang komitmen eksport ini masih relevan kerana ia masih lagi dikaji oleh penyelidik masa kini seperti (Uwizeyemungua, PlacidePoba-Nzaoub, & St-Pierre, 2022), (Alinasab, 2022) dan (Fatta, Gera, Tyagi, & Grisold, 2019).

Bantuan Kerajaan

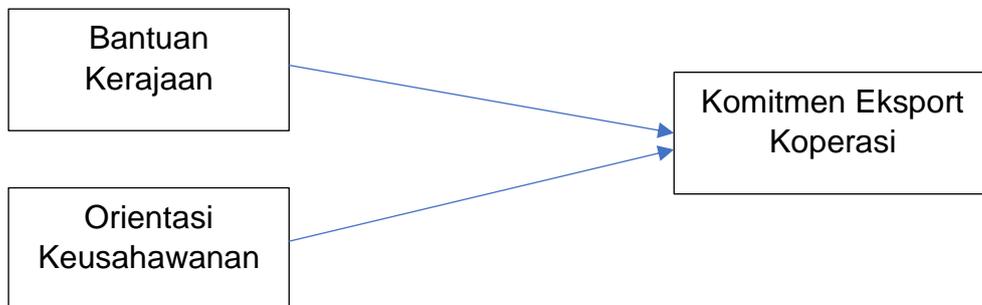
Bantuan kerajaan adalah sebarang bentuk bantuan atau sokongan kerajaan kepada organisasi perniagaan. Ia boleh dalam bentuk kewangan dan bukan kewangan. Hampir ke semua negara di dunia ini menyediakan bantuan kepada organisasi perniagaan di negara masing-masing. Dalam kontek membantu organisasi perniagaan ke pasaran antarabangsa, (Lu, Wright, & Filatotchev, 2014) menyatakan bantuan kerajaan adalah penting untuk mempermudah organisasi perniagaan untuk memperolehi sumber yang diperlukan dan membanu meningkatkan kapabiliti bagi memasuki pasaran antarabangsa. Ini sangat diperlukan oleh organisasi perniagaan yang mempunyai pengalaman di pasaran antarabangsa yang rendah. Dalam aspek penyampaian maklumat mengenai bantuan, kerajaan Amereka Syarikat telah menyediakan satu laman web sehenti untuk organisasi perniagaan mendapatka maklumat tentang bantuan atau sokongan kerajaan dalam yang berupa kewangan dan bukan kewangan. Malah, maklumat bagaimana perniagaan boleh menjalankan aktiviti eksport atau import turut disediakan dalam web berkenaan di www.usa.gov.

Orientasi keusahawanan

Orientasi keusahawanan adalah sejauhmana organisasi perniagaan proaktif, inovatif dan mengambil risiko dalam tindakan dan pengurusan (Covin & Slevin, 1989). Menurut (Anderson, Covin, & Slevin, 2009) yang telah menyatakan bahawa organisasi perniagaan yang menunjukkan gelagat keusahawanan pada kebiasaanya lebih berprestasi berbanding organisasi bersikap konservatif. Keadaan ini telah dibuktikan di mana banyak penyelidikan telah membuktikan bahawa orientasi keusahawanan mempunyai hubungan positif dan signifikan dengan prestasi organisasi terbabit. Dalam kontek kajian ini, (Mesa & Alegre, 2015) menyatakan bahawa organisasi yang berorientasikan keusahawanan sanggup melaksanakan strategi yang berisiko seperti strategi ke arah menjalankan aktiviti eksport. Menurut mereka lagi, peranan orientasi keusahawanan yang menjadi elemen utama di dalam pembuatan keputusan untuk menjalankan aktiviti eksport telah banyak dijelaskan oleh ramai pihak.

Berdasarkan kepada huraian-huraian seperti di atas, kajian ini mendapati terdapat kebarangkalian yang tinggi bahawa bantuan kerajaan dan orientasi keusahawanan mempunyai hubungan yang positif dan signifikan ke atas komitmen eksport. Pendapat ini adalah disandarkan kepada teori keupayaan dinamik sesuai dengan pendapat daripada Teece, Pisano dan Shuen (1997) yang menyatakan bahawa teori keupayaan dinamik menerangkan path-dependent processes that allow firms to adapt to rapidly changing environments by building, integrating and reconfiguring their resource and capabilities portfolio. Pendapat kajian ini berkenaan tentang hubungan antara bantuan kerajaan dan orientasi keusahawanan dengan komitmen eksport dapat digambarkan melalui kerangka konsep seperti Jadual 1.

Jadual 1: Kerangka Konsep Kajian



Kaedah Kajian

Kajian ini adalah kajian berbentuk kuantitatif yang dilakukan melalui aktiviti survey. Kajian adalah akan melihat hubungan dan pengaruh antara tiga pembolehubah bebas yang terlibat iaitu bantuan kerajaan, keupayaan dinamik dan orientasi keusahawanan dengan pembolehubah bersandar iaitu komitmen eksport. Data dikutip melalui aktiviti survey dengan menggunakan soalselidik. Populasi kepada kajian ini adalah koperasi yang berdaftar dengan Suruhanjaya Koperasi Malaysia.

Berdasarkan kepada Laporan Ekonomi Sektor Koperasi 2020 (Suruhanjaya Koperasi Malaysia, 2021) menunjukkan terdapat sebanyak 14,629 buah koperasi di seluruh Malaysia. Walau bagaimanapun, jumlah sebenar populasi koperasi untuk kajian ini akan dapat ditentukan melalui perbincangan dengan pegawai di Suruhanjaya Koperasi Malaysia dan Angkasa. Perbincangan ini bertujuan untuk mengenalpasti bilangan koperasi yang mempunyai potensi untuk menjalankan aktiviti eksport. Hasil perbincangan berkenaan akan dapat menentukan bilangan koperasi sebenar yang menjadi populasi dalam kajian ini.

Kaedah persampelan yang akan digunakan ialah kaedah persampelan berkebarangkalian. Ini disebabkan kajian ini mampu memperolehi maklumat setiap koperasi yang membentuk populasi kajian. Teknik persampelan yang akan digunakan ialah persampelan berstrata di mana tiga strata dikenalpasti berdasarkan saiz iaitu koperasi besar, sederhana dan kecil. Responden kajian adalah di kalangan Pengerusi, Timbalan Pengerusi atau Ahli Lembaga Pengarah (ALK) koperasi. Pemilihan individu ini dianggap tepat kerana mereka adalah pihak yang terlibat di dalam merangka pelan strategik perniagaan untuk koperasi masing-masing. Soalselidik akan diedarkan kepada para responden yang terlibat dengan menggunakan kaedah pos konvensional dan elektronik.

Untuk pembangunan instrument, semua item soalan diambil dari pengkaji terdahulu dan disesuaikan dengan keperluan populasi kajian. Focus group adakan diadakan di kalangan sebanyak 10 koperasi bertujuan untuk meneliti dan mengesahkan item-item berkenaan. Pandangan daripada pegawai SKM dan Angkasa juga diambil kira dalam pembangunan instrument ini. Sebarang cadangan atau penambahbaikan akan dilakukan selepas perbincangan

dengan pihak-pihak berkenaan sebelum instrumen tersebut menjalani ujian pilot. Sebanyak 30 koperasi dijangka akan terlibat dalam ujian pilot.

Pengukuran

Bagi pengukuran pembolehubah pula, untuk bantuan kerajaan ia adalah pembolehubah yang mempunyai dua dimensi iaitu bantuan kewangan dan bantuan bukan kewangan. Item soalan yang telah digunakan oleh (Shamsuddin, Ismail, Sarkawi, Jaafar, & Rahim, 2017) akan digunakan dalam kajian ini. Bagi pembolehubah orientasi keusahawanan, ia diukur berdasarkan cadangan daripada (Covin & Slevin, 1989) di mana mempunyai tiga dimensi yang dinamakan sebagai proaktif, inovatif dan pengambilan risiko. Bagi komitmen eksport ia merupakan pembolehubah unidimensi yang diwakili oleh empat item soalan. Semua soalan berkenaan diperolehi daripada (Garcia, Schmidt, & Moreno, 2015).

Kesimpulan

Hasil kajian ini dapat memberikan manfaat kepada SKM di mana hasil dapatan kajian ini dapat menentukan tahap komitmen eksport di kalangan koperasi di Malaysia. Maklumat ini dapat digunakan untuk merangka strategi bagi meningkatkan komitmen tersebut. Semakin tinggi komitmen eksport di kalangan koperasi maka semakin tinggi kebarangkalian koperasi untuk terlibat dalam aktiviti eksport.

Selain itu, dapatan kajian berkaitan pengaruh bantuan kerajaan ke atas komitmen eksport akan dapat menentukan bentuk bantuan kewangan atau bantuan bukan kewangan atau kedua-duanya untuk disediakan kepada koperasi. Maklumat ini juga dapat membantu pihak SKM menentukan agensi kerajaan manakah yang dapat menyediakan bantuan-bantuan tersebut kepada pihak koperasi.

Selanjutnya, dapatan kajian mengenai pengaruh keupayaan dinamik dan orientasi keusahawanan ke atas komitmen eksport akan dapat membantu SKM menentu bentuk Latihan yang perlu dibangunkan. Selain itu, dapatan kajian tersebut dapat membantu SKM mengenalpasti modul-modul latihan yang perlu disediakan. Program pementoran dapat dibangunkan dengan berkesan disebabkan pihak SKM telah mengetahui factor-faktor yang perlu diberikan penekanan dalam pementoran berkenaan. Hasil kajian ini juga akan memudahkan pihak SKM memadankan koperasi dengan agensi kerajaan dan swasta dalam memberikan bimbingan dan khidmat nasihat kepada koperasi.

Rujukan

- Alinasab, J. (2022). The influence of managers' marketing capabilities and international experience on SMEs' export performance. The mediating effects of export commitment. *Economic, Finance and Management Review*, 9(1), 62-81.
- Anderson, B. S., Covin, J. G., & Slevin, D. P. (2009). Understanding the relationship between entrepreneurial orientation and strategic learning capability: An empirical investigation. *Strategic Entrepreneurship Journal*, 218-240.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environment. *Strategic Management Journal*, 10(1), 75-87.
- Faroque, A. R., & Takahashi, Y. (2015). Export marketing assistance and early internationalising firm performance: Does export commitment matter? *Asia Pacific Journal of Marketing & Logistics*, 27(3), 421-443.
- Fatta, D. D., Gera, N., Tyagi, L. K., & Grisold, T. (2019). Export knowledge: Determinants of export strategy, export commitment and export performance in carpet industry. *Kybernetes*.
- Garcia, A. N., Schmidt, A. C., & Moreno, M. R. (2015). Antecedents and consequences of export entrepreneurship. *Journal of Small Business*, 68, 1532-1538.
- Garg, R., & De, K. (2012). Impact of dynamic capabilities on the export orientation and export performance of small and medium sized enterprises in emerging markets. A conceptual model. *African Journal of Business Management*, 6(29), 8464-8474.
- Laaksonen, O., & Peltoniemi, M. (2018). The essence of dynamic capabilities and their measurement. *International Journal of Management Review*, 20, 184-205.
- Lu, J. L., Wright, M., & Filatotchev, I. (2014). International experience and FDI location choices of Chinese firms: The moderating effects of home country government support and host country institutions. *Journal of International Business Studies*, 45(4), 428-449.
- Mesa, A. F., & Alegre, J. (2015). Entrepreneurial orientation and export intensity: Examining the interplay of organizational learning and innovation. *International Business Review*, 24, 148-156.
- Mohamad, H. F. (2016). *Matrade sasar eksport produk koperasi RM100juta*.
- Navarro, A., Acedo, F. J., Robson, M. J., Ruzo, E., & Losada, F. (2010). Antecedents and consequences of firms' export commitment: A empirical study. *Journal of International Marketing*, 18(3), 41-61.
- Navarro, A., Losada, F., Ruzo, E., & Jose A, D. (2010). Implications of perceived competitive advantages, adaptation of marketing tactics and export commitment on export performance. *Journal of World Business*, 45, 49-58.

- Shamsuddin, J., Ismail, N. A., Sarkawi, M. N., Jaafar, A. R., & Rahim, N. F. (2017). Government Business Support Service (GBSS) and SMEs Performance: Observations from Malaysian Manufacturing. *International Journal of Economic Research*, 14(22).
- Suruhanjaya Koperasi Malaysia. (2021). *Laporan Ekonomi Sektor Koperasi 2020*. Kuala Lumpur: Suruhanjaya Koperasi Malaysia.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 8(7), 509-533.
- Uwizeyemungua, S., PlacidePoba-Nzaoub, & St-Pierrec, J. (2022). Back-end information technology resources and manufacturing SMEs' export commitment: An empirical investigation. *International Business Review*, 31(5), 1-16.
- Wilden, E., Gudergan, S. P., Nielsen, B. B., & Lings, I. (2013). Dynamic capabilities and performance: Strategy, structure and environment. *Long Range Planning*, 46, 72-96.

EXPLORING ENTREPRENEURIAL BRANDING: PUTTING THE CONCEPT INTO PERSPECTIVE

1. Hasnizam HASAN¹, Mohd Sufli YUSOF² and Shuhymee AHMAD³

2.

^{1,2,3} *Universiti Utara Malaysia*

Abstract. Recognizing the nature of Small Medium Enterprises (SMEs) that operate within certain constraints in term of very limited resources, budget as well as expertise, and even so SMEs were acknowledged as major contributors towards country economic growth and offer lot of job opportunities. Hence, it attracts vast number of researchers to explore and discover more verdicts in various areas in SMEs. Entrepreneurial marketing which was conceptualized 4 decades ago became imperative themes among the SMEs researchers. However, it was demonstrated that there were inconsistency results revealed within large companies marketing practices, SMEs marketing and entrepreneurial marketing. Working on this premise this study attempts to explore branding orientation among SMEs and furthermore conceptualize entrepreneurial branding thought. In so doing, numerous literatures in marketing and branding have been content analyzed. This preliminary discovery on the other hand may not impeccably divulge an expected result since the primary focus was given to large companies marketing and branding literatures. There is very limited analysis was conducted within SMEs marketing, branding as well as entrepreneurial branding related articles. Most branding practices which are reflected large company branding practices reveal that large companies brand orientation is mainly focus on corporate identification and positioning activities. Corporate brand, national manufacturer brand, private label or retail brand are most brand strategies used by large companies. Several terminologies such as brand identity, corporate identity, brand image, brand equity become commonly used by large companies. In conclusion, it may be huge potential discrepancy explanation pertaining to the concept of entrepreneurial branding and large companies branding as well as SMEs branding. Consequently, further exploration needs to be conducted which specifically focus on literatures in SMEs marketing and branding as well as entrepreneurial branding itself. Future discovery will be so promising.

Keywords: Large companies branding, SMEs branding, entrepreneurial branding, entrepreneurial marketing, brand orientation.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: hasnizam.hasan@gmail.com

Introduction

Brands have continually become a pivotal concern and part of a successful formula for existing and future firms due to its important impact on companies' triumph in fierce market competitions (Norris, 1992) and likewise John Costello, former Head of Marketing for Sears and Chief Executive Officer of MVP.com emphasized that ... *brand will rule the future* (Bergstrom, 2000). New internet users tend to explore sites of a familiar brand first (Quelch & Klein, 1996) since brands offered consumers with assurances (Zajas & Growley, 1995) as well as reducing their risk and kept consumer loyal with them (Montgomery & Wemerfelt, 1992). Besides, internet consumers utilized brand as a shortcut in evaluating different feature of products. On top of that, Lindstrom and Seybold (2003) believed that there is a need to concern about new concept of business, through acknowledging brand interaction as a multi-facet experience since emerging and experience involvement in which brand becomes as the key to building successful relationship. Acknowledging the importance of brand to the organization, thus over almost three decades, firms have markedly increased their investments in building and developing brands (Campman, 2002; de Chernatony, 2001; de Chernatony & Mc Donald, 1992; del Rio, Vazquez & Iglesias, 2001; Doyle, 1990; Keller, 1998; King, 1991).

Branding activities become crucial even to both SMEs and micro businesses in order to ensure the visibility of the business to the target market. However, those SMEs and micro businesses are always associated with very limited of sources such as human capital, money, technology and knowledge. Therefore, this paper attempts to discover the most prevalent entrepreneurial branding practices among SMEs and micro businesses. Ahonen (2008) on the other hand question the existence of branding practices among SMEs. Branding has been considered as large companies' issues and lack of attention was given by SMEs on the issues of branding. This might be due to the claimed that has been made by Inskip (2004) that corporate branding is new to SMEs or possibly due to lack of resources especially financials and therefore priority cannot be given to brand management practices.

Hill (2001) suggested in entrepreneurial marketing literatures that marketing in large companies is differ with SMEs marketing practices and in fact SMEs marketing also differ with entrepreneurial marketing. Ahonen (2008) who questioned whether branding ever existed among SMEs revealed that branding does exist among SMEs. Working on this premise, this study however attempts to explain the basic concept of brand as well as discuss the evolution of brand and finally offer some basic concepts of entrepreneurial branding.

Understanding the Brand Concepts

In order to identify a research issue in branding, then the researcher found that it is vital to clarify and have clear understanding about brand itself, its nature, its major role to consumers, marketers and other related parties and answering why brand is important to all parties, starting with a basic concept such as definition to more advanced concepts related to consumers and marketers such as brand essence, brand image, brand personality, brand identity, brand association, brand value, brand strength, brand equity, brand extensions, brand awareness, brand recall, brand loyalty, brand relationship and most recently brand community. As discussed earlier, brand concepts are not new either to consumers or marketers because they have been introduced since 1300BC. However, brand concepts have started to evolve from that time until now from corporate identity to perception or meaning in consumer's mind and then continued with relationship to equity and finally community. In other words, the concepts started from being alone (single identity) until having a relationship and from being tangible

until intangible. However, this section will only embrace a definition of brand without discussing the other concepts of branding.

Since the metaphor of brand was first introduced, many researchers have tended to articulate an essential definition of brand. Various concepts and definitions of brand were introduced by both academicians and practitioners in various areas of research such as marketing, psychology, anthropology and sociology (Craig-Lees, 2003; de Chernatony, 1999; de Chernatony, 2001; de Chernatony & Mc Donald, 1992; Grassl, 1999; Klein, 2000; Simoes & Dibb, 2001; Urde, 1994). However, different scholars would come out with different concepts or definitions of brand. As a result, the researcher feels it is essential to explore and gain better understanding about brand by analyzing the basic concepts or definitions of brand. What does brand mean? What does brand mean to consumers and marketers? What is so special about brand? Thus, in order to gain a better understanding of brand, it is better for us to understand what brand means to consumers and marketers. Therefore, the following discussion will highlight various definitions of brand from both consumers' and manufacturers' perspectives.

American Marketing Association (1960) has come out with a new concept of brand in glossary of marketing definitions by defining brand as

... a name, term, sign, symbol or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those competitors" (Alexander and AMA in Dirksen, Kroeger and Lockley, 1963).

The above definition seems to emphasize more on the brand attributes and functional values (mean for identification and differentiation). For example, in term of brand attributes – the above definition is concerned about name, term, sign, symbol or design or combination of them. However, on the following year, Harsen (1961) attempted to offer another concept of brand by defining brand as

...a word, letter, group of words or letters, design, or combination of any or all of these, used to identify the goods or services of a seller or group of sellers.

However, the definition suggested by Harsen (1961) seems to be more narrowed, which only reflects a symbol of identity or sign of ownership and more similar to a definition of 'brand name' which was articulated by AMA in 1960. Since then, most marketing and branding texts have shared the same definitions provided by AMA as a mean to define brand (Matthews, Buzzell, Levitt & Frank, 1964; Holloway & Hancock, 1968; Lynn, 1969).

In addition, a branding guru such as Aaker (1991), nonetheless defined brand as

... a distinguishing name and/or symbol (such as a logo, trademark or package design) intended to identify the goods or services of either one seller or group of sellers to differentiate those goods or services from those of competitors,

and Kapferer (1992) defined brand as the creation of external indication which shows that a product or service has received an organization imprint or its mark.

Based on the above definitions, it seems that most scholars tend to define brand from the manufacturers' or marketers' perspective. All the above definitions seem to view brands via

their pivotal roles as a symbol of identity, mean of differentiation and legal device. On another standpoint, most definitions only entail functional or rational concept or role of brand.

Howard and Sheth (1969) then offered us another definition of brand from consumer's perspective, which was merely as another class concept, which contained both denotative and connotative meaning. They further elaborated that denotative meaning referred to socially designated attributes - how discussions with other people would differentiate one brand from another. On the other hand, connotative meaning referred to how a buyer evaluates certain brand based on the motives and attributes that constitutes choice criteria.

In 1986, Park, Jaworski and MacInnis extended a definition of brand concept, which was referred to a firm-selected brand meaning derived from three basic consumer needs, which are functional, symbolic and experiential. Then, they provided a further definition of functional needs as those that motivate the search for products and solved consumption problem while symbolic need was defined as desire for products that fulfill internally generated needs for self-enhancement, role position, group membership or ego identifications. In addition, a brand with a symbolic concept was designed to associate the individual with a desired group, role and self-image. Finally, experiential need was referred to a desire for products that provide sensory pleasure, variety and cognitive stimulation.

Then, Feldwick (1991) continued to define a notion of brand as

... a collection of perceptions in the mind of the consumer (Cowley, 1991)

These notions of brand seem to be similar with Keller (1998) who defined brand as

... something that resides in the minds of consumers...perceptual entity, rooted in reality, but also reflecting the perceptions and perhaps even the idiosyncrasies of consumers.

However, Duckworth (1991) referred brand as a collection of meanings commonly held by human being and these meanings will affect people's purchasing behavior. Furthermore, he also saw brand as evolving phenomena and has a kind of atomic structure, in which the nucleus of the brand composes those meanings that will not be changed over time, but can be enhanced through advertising. However, McCracken in Aaker and Biel (1993) defined brand from anthropological point of view. Brand was defined as

... a bundle or container of meanings.

In addition, Motameni and Shahrokhi (1998) looked into customer's perspective when they discovered that brand identified the owner of the goods rather than the manufacturer. The same view was soon shared by Blackston (2000) who quoted David Ogilvy's definition of brand as

... consumer's idea about a product... Brand is different from a product because brand is invested by the consumer.

Then, Murphy (1990) defined brand as a unique property of the specific owner and has been developed over time to embrace a set of value and attribute which are tangible and intangible. So, by looking into consumer's perspective, we can conclude that most researchers said that brands, like people, have personalities, and are consistent and reliable as suggested by Lewis (1991).

Besides those two perspectives, Davies and Chun (2003) however introduced a new concept of brand by using a metaphor to explore a brand concept. In their article, Davies and Chun (2003) offered three root metaphors for brand, which are brand as differentiating mark, brand as a person and brand as an asset. In addition, de Chernatony and McWilliam (1992) put forward extensive brand definition by integrating consumer, manufacturer and benefits as follows:

A successful brand is an identifiable product, service, person or place augmented in such a way that the buyer or user perceives relevant, unique, sustainable with added value that matches his or her needs much closer.

Furthermore, de Chernatony and Dall'Olmo Riley (1998), proposed a comprehensive theory of brand construct by using twelve categorizations of brand definitions which are brand as a legal instrument, logo, a company, shorthand, risk reducer, an identity system, an image in consumers' minds, value system, personality, relationship, adding value and finally as evolving entity.

A brand is a name, term, design, symbol or any other feature that identifies one seller's goods or services as distinct from those of other sellers (American Marketing Association, 2022).

Based on the latest definition offered by AMA, it seems that the way AMA define brand is still similar with slight changes in term of words that AMA use. And yet, the main focus is still on the marketer's perspective. In general, the above definitions or constructs provide us with several notions in understanding brand. Which perspective of brand do you want to look at? Do you intend to look at it from consumer's or manufacturers' perspectives? Do both parties gain benefits from brand? Do you define brand based on the role it plays? Do you define it as a metaphor? And finally, do you integrate all the beneficiaries and role played by brand in order to get a good definition of a brand?

Evolution of Brand Management

Brand evolution can be expressed in several ways either by using historical research (Low & Fullerton, 1994) or by using other people's model (de Chernatony, 1993) as well as content analyzed over trade and academic journals (de Chernatony & Dall'Olmo Riley, 1998). It is believed that by understanding those concepts, managers will gain better understanding about branding and how to plan their strategies in attempt to achieve company's mission and goals.

Brand is not new in the business world despite being pro-founded far back in 1300BC when marks were found on Chinese porcelains, goods from India and pottery jars from ancient Greece and Rome (Keller, 1998), cattle in United States (de Chernatony & Mc Millan, 1992) and brick in ancient Egypt (Davies & Chun, 2003). In addition, Keller (1998) further elaborated that brand had also been used as a mark for various business people in different industries such as printing industry (i.e. printer's mark or watermark on paper), food industry (i.e. bread) and craft industry. During that time, if anything went wrong with a product then the consumers could claim it back from the manufacturers. In fact, there was an English law that (approved in 1266) required every baker to assign a mark on each loaf of the bread sold.

The branding convention and practice were then transferred to United States of America when European people expanded their empires (Keller, 1998). Then, the manufacturers of tobacco and medicine began to pioneer the application of brand strategy in American business world.

The expansion of this sector had proliferated more invention in branding whereby manufacturers came out with attractive-looking packaging, picture labels, decorations and

Year	Author	Brand Definitions	Functions	Perspective
1960	AMA	a name, term, sign, symbol or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those competitors	Identification & Differentiation	Marketer/ Manufacturer
1961	Harsen	a word, letter, group of words or letters, design, or combination of any or all of these, used to identify the goods or services of a seller or group of sellers	Identification	Marketer/ Manufacturer
1969	Howard & Sheth	another class concept, which contained both denotative and connotative meaning	Differentiation	Consumer
1986	Park, Jaworski & McInnis	a firm-selected brand meaning derived from three basic consumer needs, which are functional, symbolic and experiential	Benefits	Consumer
1990	Murphy	a unique property of the specific owner and has been developed over time to embrace a set of value and attribute which are tangible and intangible	Identification	Consumer
1991	Feldwick	a collection of perceptions in the mind of the consumer	Meaning	Consumer
1991	Duckworth	a collection of meanings commonly held by human being and these meanings will affect people's purchasing behavior.	Meaning	Consumer
1992	Kappferer	the creation of external indication which shows that a product or service has received an organization imprint or its mark.	Identification	Marketer/ Manufacturer
1992	deChernatony & McWilliams	an identifiable product, service, person or place augmented in such a way that the buyer or user perceives relevant, unique, sustainable with added value that matches his or her needs much closer.	Identification	Consumer & Marketer/ Manufacturer
1998	deChernatony & Dall 'Olmo Riley	a legal instrument, logo, a company, shorthand, risk reducer, an identity system, an image in consumers' minds, value system, personality, relationship, adding value and finally as evolving entity.	Identification, Personality	Consumer & Marketer/ Manufacturer
2003	Davies & Chun	differentiating mark, brand as a person and brand as an asset	Differentiation	Marketer/ Manufacturer
2022	AMA	a name, term, design, symbol or any other feature that identifies one seller's goods or services as distinct from those of other sellers	Identification/ Differentiation	Marketer/ Manufacturer

Table 1: Understanding Brand

*AMA – American Marketing Association

symbols. During that time, brand and label were utilized as a mean for differentiation and to provide consumers with better choices. Since then, brands have provided enormous potential for people in this industry.

Subsequently, the concept of national manufacturer brand emerged within 1860-1914 whereby companies sold their products in bulk containers because of mass production and the products were communicated to the market via mass advertising (Keller, 1998). Besides mass production, Keller (1998) further described that there were several other factors which contributed towards the development of manufacturers' brands in the United States of America such as improvement in transportation and communication, production processes and packaging, changes in the United States trademark law, advertising becoming as more credible options, retail organizations serving as effective middlemen and encouraging consumer spending, increase in population and industrialization and urbanization, higher standard of living, aspiration of the Americans, and the rise in American literacy.

The changing nature of the retailing environment around 1870s could be further elaborated when multiple retailers emerged with their own brands (sometimes referred to as own label and private label) by means of controlling the production and packaging (de Chernatony & McDonald, 1992). Apparently, most retailers' brands tended to be basic grocery items, which had been produced by retailers themselves and finally commissioned to the established manufacturers. In 1880s, most corporations introduced own corporate logo for their mass-produced products such as Campbell's soup, Quakers Oats cereal and H.J Heinz pickles (Klein, 2000). While in the meantime, several concepts such as corporate personality, unique brand name, packaging and advertising were introduced. However, World War II had become a nightmare for manufacturer and retailer brands when manufacturer brands became scarce and retailer brands were withdrawn from the market. Retailer brands were only reintroduced in 1950s.

Furthermore, Keller (1998) found that most mass marketed brand hit the highest point and there was an increasing acceptance of manufacturer brand among consumers in early years of 1900s (1915-1929). During that time, most functional experts integrated their ideas to proliferate their corporate brands. Everybody from product designers who firstly conceptualized an initial of product concept and design to the government which governed rules and regulations played their major roles in developing corporate brands. Throughout this time, advertising had been given a big role of embodying a meaning to the company. Furthermore, Klein (2000) quoted the words from legendary adman in 1923, Bruce Barton who emphasized on how advertising helped companies to find their souls. However, Great Depression in 1929 once again posted a new challenge to the manufacturer brand especially when consumers became price sensitive because the retailers pushed up retailer brands and, in the meantime, dropped manufacturer brands. On the other hand, advertising also became under fire when too much deception, manipulation and tastelessness were ignored by certain groups of customers (Keller, 1998).

Subsequently, most companies established brand management standard, which required each brand manager to be responsible for their brands (1946-1985). Initially, this brand management was believed to have been initiated by the president of Procter and Gamble in 1931 when every brand was assigned to one brand manager and an assistant (Low and Fullerton, 1994). Wheeler Amendment through FTC regulated new advertising practices, in which manufacturer could not only focus on jingles and slogans but also provide a reason to the consumers of why they

should buy advertised brands. In addition, most corporations in 1940s were more aware that they could have a brand identity or a corporate consciousness (Klein, 2000).

Post-World War II has shown an increasing demand in high quality brands because of the economy boom and growing number of middle-class people. In 1950's, Gardner and Levy (1955) was accredited as the first company which captured the essence of brand image. Since it was introduced, the notion of brand image has become a common place in the consumer research (Dobni & Zinkhan, 1990).

Then, in 1980's brand equity became as major interest of practitioners and marketing academician (Aaker, 1991; Ambler, 1997; de Chernatony, 1996; Keller, 1998; Keller, 1993; Krishnan, 1996; Mackay, 2001; Motameni & Shahroki, 1998; Na, 1999; Simoes & Dibb, 2001; Wood, 2000; Yoo and Donthu, 2001) and financial researchers (Knapp, 1999; Simon & Sullivans, 1993). In addition, marketing researchers and practitioners were also concerned on the issue of brand and corporate identity (de Chernatony, 1999; Harris & de Chernatony, 2001; van Riel & Balmer, 1997).

However, in the first quarter of 1990's (Marlboro Friday-1993) the business world witnessed how brand lost its power when a company such as Marlboro reduced the price of their products 40% per pack (Davis, 1994). It was a difficult time for most companies to decide whether to continually nurture their brands or not. In addition, strong rumors in some marketing and brand literatures after 1993 tended to testify that it was the end of branding era (Maklan & Knox, 1997). On the other hand, for those companies who strongly believed that brand might cheer up and take a more prominent place in the future would endlessly invest their money in developing, managing and promoting their brand. For example, Klein (2000) reported that total advertisement expenditures had increased steadily from 1915 till 1998, albeit the hot rumors about the death of brands.

Indeed, it could be supported by some findings from marketing researchers and practitioners who found that the best time to build a brand was when everybody was not building their brand. During that time, customers would only receive little information in their minds since most of the firms were freezing their budget, which made it easy to process. Based on information processing theory, customers can only process few bits of information per minute. On the other hand, during economic prosperity, most company will allocate some money for advertising and customers may feel that they are dumped with too much information which they normally cannot restore in their minds. They may only select information, which best suits their belief, attitude and norms.

In the past few decades, people also assumed that mass production and generic products seemed to be another "threat" for branding. On the contrary, Prendergast and Marr (1997) in their study on generic products undermined the above assumption by means of their finding that generic brand would only benefit from the markets within short period of time (5 to 6 years only). Consumers would no longer buy the generics brands when there was no match between their lifestyles and identities. It was then, confirmed by Kohli and Thakor (1997) who found that generic name could not be used as brand name and did not offer any trademark protection for the company. According to Davies and Chun (2003) brand was seen as "extended product" in 20th century in the positivistic approach and latter in post-modern thinking, people viewed brand as a "living entity".

Most people talked about relationship marketing in 1990s (Doyle, 1995) because it was believed that building a relationship with a customer was a main thing when doing a business. By applying the notion of that concept, people started to look at consumer brand relationship (Fournier, 1998). Towards the end of 1990's, there was an issue of brand identity or corporate identity (Kapferer, 1999). Recently, few scholars in marketing have invented a new concept in branding by using sociology and anthropology theory. For instance, Elliot and Wattanasuwan (1998) found brands as symbolic resources for the construction of the identity and Muniz and O'Guinn (2001) and McAlexander et al. (2002) found the concept of brand community.

Entrepreneurial Branding

Corporate brand, national manufacturer brand, retail brand, private label brand and product brand are among the common type of brand that occurred in the marketplace and market space (Keller, 2020, Aaker, 2004). However, Hill (2001) suggested that branding in large companies differs from branding in SMEs and SMEs branding differs from entrepreneurial branding. Working from this hypothesis, hence this study attempts to discover the truth for the statement by exploring the concepts of entrepreneurial branding. It is interesting to study SMEs branding practices through having in-depth understanding on entrepreneurial branding. This endeavor can be achieved by successfully conceptualized entrepreneurial branding.

Ahonen (2008) found out that most researchers attempt to understand SMEs branding practices by utilizing corporate branding literatures as compared to product branding literatures. Nevertheless, most researchers utilized product branding as their theoretical background as compared to corporate branding.

As we know, brand building activities normally will be associated with high budget and resources allocations and yet it was widely accepted that SMEs operate under very limited resources and money. Thus, SMEs in this situation need to be creative and innovative in the sense of utilizing less expensive promotional tools such as social media in order to build the brand. On top of that, internal branding or employee branding are among the potential strategy than can be work out within limited resources. Abimbola (2001) on the other hand suggested SMEs should carefully plan its branding activities, try to understand branding necessities as well as get full cooperation from the organization as to build the brand,

Conclusion

Entrepreneurial branding is crucial subject matter to explore since its contribution to is vital to SMEs.

Table 2: Evolution of Brand Management

Year	Author	Brand Concepts	Products/Events	Purpose/Mean
1300 BC	Keller, 1998; deChernatony & McMillan, 1992; Davies & Chun, 2003	Corporate Brand-marks	Porcelains - China, Goods - India Pottery jars - ancient Greece & Rome; Cattle – United States; Brick – ancient Egypt	Identification - proof of identity
1990s	Keller, 1998	Corporate Brand-marks	Printing Industry; Food Industry; Craft Industry; Tobacco & medicine	Identification ; Differentiation- promotion & choices
1860-1914	Keller, 1998	National Manufacturer Brand	Mass productions & mass advertising	Identification
1870s	de Chernatony & Mc Donald, 1992	Retailer Brand & Private Label Brand	Basic grocery items	Control productions & packaging
1880s	Klein, 2000	Corporate Brand	Fast Moving Consumer Goods (FMCG)	(Corporate personality, unique brand name, packaging & advertising)
1900s (1915- 1929)	Keller, 1998 Klein, 2000	Corporate Brand	Great Depression 1929; increase price sensitivity	Advertising (too much deception, manipulation, tastelessness)
1931	Low & Fullerton, 1994; Klein, 2000	Brand Identity & Corporate consciousness	Brand management initiated by President of P&G	Appoint Assistant & Brand Manager
World War II	Klein, 2000	Manufacturer & Retailer Brand	Manufacturer brand-scarce	

			Retailer brand-withdrawn	
1946-1985	Low & Fullerton, 1994	Established Brand Management Standard		Appoint Brand & Assistant Manager
1950s	Klein, 2000	Retailer Brand	Reintroduced	
Post World War II; 1950s	Gardner & Levy, 1955	Brand Image		
1980s	Aaker, 1991; deChernatony, 1996; Ambler, 1997; Simoes & Dib, 2001; Yo & Donthu, 2001	Brand Equity		
1980s	vanRiel & Balmer, 1997 deChernatony, 1999 Harris & deChernatony, 2001	Brand & Corporate Identity		
1990s	Maklan & Knox, 1997	End of branding era	Marlboro Friday-1993	
1915-1998	Klein, 2000	Death of brand rumors		Increase in total advertisement expenditure
1990s	Kohli & Thakor, 1997 Davies & Chun, 2003	Generic brand Extended Product	Generic brand could not be used as brand name & did not offer any protection; Generic brand was not match with lifestyle & identities	
1990s	Doyle, 1995 Fournier, 1998	Relationship Marketing Brand Relationship		
1998	Elliot & Wattanasuwan, 1998	Means for Identity Construction		
2000s	Muniz & O'Guin	Brand Community		

References

- Aaker, D. A. (1991). *Managing Brand Equity: Capitalizing on the Value of a Brand*. London: The Free Press.
- Aaker, D. A., & Biel, A.L. (1993). Brand equity and advertising: An overview. In D. A. Aaker, & A. L. Biel, *Brand equity and advertising* (pp.1-8). Hillsdale, New Jersey: Lawrence Erlbaum.
- Abimbola, T. ((2001). Branding as a competitive strategy for demand management in SMEs, *Journal of Research in Marketing and Entrepreneurship*, 3, 2, 97-106.
- Ahonen, M. (2008). Branding-does it even exist among SMEs? *Proceeding of the Nordic Conference on Small Business Research, Tallin, Estonia*.
- Ambler, T. (1997). How much of brand equity is explained by trust? *Management Decision*, 35(4), 283-292.
- Davies, G., & Chun, R. (2003). The use of metaphor in the exploration of the brand concept. *Journal of Marketing Management*, 19(1-2), 45-71.
- de Chernatony, L. (1993). Intergrated brand building using brand taxonomies. *Marketing Intelligence & Planning*, 14(7), 40-45.
- de Chernatony, L. (1999). Brand management through narrowing the gap between identity and brand reputation, *Journal of Marketing Management*, 15(1-3), 157-179.
- de Chernatony, L. (2001). *From Brand Vision to Brand Evaluation: Strategically Building and Sustaining Brands*. (1st. ed.). Oxford, England: Butterworth-Heinemann.
- de Chernatony, L., & Dall Olmo Riley, F. (1992). Defining a "brand": Beyond the literature with experts' interpretation. *Journal Marketing Management*, 14(5), 417-443.
- de Chernatony, L. & McDonald, M. H. B. (1992). *Creating Powerful Brands: The Strategic Route to Success in Consumer, Industrial and Service Markets*. (1st. ed.). Oxford, England: Butterworth-Heinemann.
- de Chernatony, L. & McWilliam, G. (1989). The strategic implication of clarifying how markets interpret 'brands'. *Journal of Marketing Management*, 5(3), 153-171.
- del Rio, A. B., Vazquez, R., & Iglesias, V. (2001). The effects of brand associations on consumer response. *Journal of Consumer Marketing*, 18(5), 410-425.
- Dobni, D., & Zinkhan, G. M. (1990). In Search of Brand Image: A Foundation Analysis. *In NA - Advances in Consumer Research Volume 17*, eds. Marvin E. Goldberg, Gerald Gorn, and Richard W. Pollay, Provo, UT: Association for Consumer Research, *Advances Consumer Research*, 17, 110-119.
- Doyle, P. (1990). Building successful brands: The strategic options. *The Journal of Consumer Marketing*, 7(2), 5-20.
- Doyle, P. (1995). Marketing in the new millennium. *European Journal of Marketing*, 29(13), 23-41.
- Duckworth, G. (1991). Brands and the role of advertising. In Cowley, D. *Understanding Brand by 100 People Who Do*. London, England: Kogan Page.
- Elliott, R., & Wattanasuwan, K. (1998). Brands as symbolic resources for the construction of identity. *International Journal of Advertising*, 17(2), 131-144.
- Feldwick, P. (1991). Defining a brand. In Cowley, D. *Understanding Brand by 100 People Who Do*. London, England: Kogan Page.

- Fournier, S. (1998). Consumer and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343-373.
- Gardner, B. B., & Levy, S. J. (1955). The product and the brand. *Harvard Business Review*, 33 (March-April), 33-39.
- Grassl, W. (1999). The reality of brands: Towards ontology of marketing, *American Journal of Economic Sociology*, 58(2), 313-360.
- Harris, F. & de Chernatony, L. (2001). Corporate branding and corporate brand performance, *European Journal of Marketing*, 35 (3/4), 441-456.
- Hill, J. (2001). A multidimensional study of the key determinants of effective SMEs marketing activity: Part 1. *International Journal of of Entrepreneurial Behavior & Research*, 7, 5, 171-204.
- Holloway, R.J., & Hancock, R. S. (1968). *Marketing: Marketing in a changing environment*, New York.
- Howard, J.A., & Sheth, J.N. (1969). *The theory of buyer behaviour*. New York, USA: John Wiley & Sons.
- Inskip, I. (2004). Corporate branding for small to medium-sized businesses- A missed opportunity or an indulgence? *Brand Management*, 11, 5, 358-365.
- Kapferer, J. N. (1992). *Strategic brand management: New approaches to creating and evaluating brand equity*. London, England: The Free Press.
- Kapferer, J. N. (2012), *The new strategic brand management*. London, England: Kogan Page.
- Keller, K. L. (1993). Conceptualizing, measuring and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Keller, K. L. (1998). *Strategic brand management: building, measuring and managing brand equity*. New Jersey: Prentice-Hall Inc.
- King, S. (1991). Brand building in the 1990s. *Journal of Consumer Marketing*, 8(4), 43-52.
- Klein, N. (2000). *No Logo*. London: Flamingo.
- Knapp, D. (1999). Brand equity, *Risk Management*, 46(9), 71-74.
- Kohli, C., & Thakor, M. (1997). Branding consumer goods: Insights from theory and practice. *Journal of Consumer Marketing*, 14(3), 206-219.
- Krishnan, H.S. (1996). Characteristics of memory associations: A consumer-based brand equity perspective. *International Journal of Research in Marketing*, 13(4), 389-405.
- Lindstrom, M. & Seybold, P. B. (2002). *Brand child: Remarkable insights into the minds of today's global kids and their relationship with brands*. London, England: Kogan Page.
- Low, G. S. & Fullerton, R. A. (1994). Brands, brand management, and the brand manager system: A critical-historical evaluation. *Journal of Marketing Research*, 31(2), 173-190.
- Mackay, M. M. (2001). Evaluation of brand equity measures: Further empirical results. *Journal of Product and Brand Management*, 10(1), 38-51.
- Maklan, S. & Knox, S. (1997). Reinventing the brand: bridging the gap between customer and brand value, *Journal of Product and Brand Management*, 6(2), 119-129.
- Matthews, J. B., Buzzel, R.D., Levitt, T., & Frank, R. E. (1964). *Marketing: An introductory analysis*. New York: McGraw-Hill Book Company.
- McAlexander, J. H., Schouten, J. W., & Koenig, H. F. (2002). Building brand community. *Journal of Marketing*, 66(1), 38-54.

- Motameni, R., & Shahrokhi, M. (1998). Brand equity valuation: A global perspective. *Journal of Product and Brand Management*, 7(4), 275-290.
- Muniz Jr, A. M., & O'Guinn, T. C. (2001). Brand community. *Journal of Consumer Research*, 27(4), 412-432.
- Murphy, J. M. (1990). *Brand strategy*. New York, USA: Prentice Hall.
- Na, W. B., Marshall, R., & Keller, K. L. (1999). Measuring brand power: Validating a model for optimizing brand equity. *Journal of Product & Brand Management*, 8(3), 170-184.
- Park, C. W., Jaworski, B. J., & MacInnis, D. J. (1986). Strategic brand concept-image management. *Journal of Marketing*, 50(4), 135-145.
- Prendergast, G. P., & Marr, N.E. (1997). Perceptions of generic products: a macro and micro view. *Journal of Product and Brand Management*, 6(2), 93-108.
- Simoës, C., & Dibb, S. (2001). Rethinking the brand concept: new brand orientation. *Corporate Communication: An International Journal*, 6(4), 217-224.
- Simon, C. J., & Sullivan, M. W. (1993). The measurements and determinants of brand equity: A financial approach. *Marketing Science*, 12(1), 28-52.
- Urde, M. (1994). Brand orientation-A strategy for survival. *Journal of Consumer Marketing*, 11(3), 18-32.
- Van Riel, C. B. M., & Balmer, J. M. T. (1997). Corporate identity: the concept, its measurement and management. *European Journal of Marketing*, 31(5/6), 340-355.
- Wood, L. (2000). Brands and brand equity: definition and management. *Management Decision*, 38(9), 662-669.
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), 1-14.

IMPAK ORIENTASI KEUSAHAWANAN KE ATAS PRESTASI KOPERASI DI MALAYSIA : SATU KAJIAN EMPIRIKAL

Khairunnisak AHMAD SHAKIR¹, Sajiah YAKOB², Suraiya SHAFIEE@ISMAIL³, Ahmad
Fahrizal Asmy MOHAMED YUNUS⁴, Ardio SAGITA⁵

^{1,2,3,4}Universiti Islam Antarabangsa Sultan Abdul Halim Mu'adzam Shah

⁵Universiti Utara Malaysia

Abstrak

Sumber merupakan sesuatu yang dimiliki dan juga dikawal oleh organisasi. Sumber juga telah dikenal pasti dapat meningkatkan keberkesanan dan juga prestasi sesebuah organisasi. Ia merupakan aset organisasi. Kajian oleh sarjana yang terdahulu ada menjelaskan bahawa sumber-sumber organisasi adalah asas kepada penghasilan prestasi organisasi. Sumber organisasi di sini boleh dikategorikan kepada dua jenis iaitu sumber nyata dan sumber tak nyata. Sumber nyata terdiri daripada aset fizikal organisasi manakala sumber tak nyata pula adalah terdiri daripada aset bukan fizikal. Kajian oleh sarjana terdahulu telah membuktikan dan mengesahkan bahawa aset tak nyata mewujudkan kelebihan daya saing bagi sesebuah organisasi. Oleh yang demikian, penyelidik cuba untuk melihat hubungan di antara sumber tak nyata dengan prestasi koperasi di Semenanjung Malaysia. Sumber yang difokuskan adalah orientasi keusahawanan. Orientasi keusahawanan tersebut akan diuji bagi menentukan perhubungan dan pengaruhnya kepada prestasi koperasi dan dapatan kajian mendapati bahawa orientasi keusahawanan mempunyai hubungan yang positif dan signifikan dengan prestasi koperasi.

Kata Kunci : Orientasi Keusahawanan, Prestasi Koperasi, Sumber Organisasi

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address:
knisak@unishams.edu.my

Pengenalan

Koperasi merupakan sebuah perniagaan di mana matlamat utama penubuhannya adalah untuk menawarkan produk dan perkhidmatan kepada pelanggan dan mencipta keuntungan melalui penawaran tersebut. Ia merupakan sejenis organisasi perniagaan yang dimiliki dan dikawal secara demokratik oleh sekumpulan manusia di mana mereka ini mempunyai tujuan yang sama iaitu menggunakan perkhidmatan serta mendapat faedah yang diagihkan secara sama rata di atas penggunaan perkhidmatan tersebut (MKM, 2010). Peranan koperasi juga dilihat semakin meningkat sejajar dengan arus pembangunan negara. Pengiktirafan yang diberikan kepada sektor koperasi di mana sektor ini telah diangkat sebagai sektor ketiga dalam menjana pembangunan ekonomi negara bukan saja membuktikan bahawa gerakan koperasi masih relevan, tetapi juga penting kepada kejayaan ekonomi negara. Pengiktirafan yang diberikan oleh pihak kerajaan ini telah menuntut komitmen yang tinggi kepada tenaga penggerak koperasi dalam usaha untuk menjayakannya. Matlamat asal penubuhan koperasi iaitu sebagai peminjam wang pada suatu ketika dahulu tidak lagi relevan dalam konteks dan aspirasi kerajaan ini. Pengiktirafan ini telah menyebabkan penekanan perlu diberikan kepada aspek-aspek yang mampu dan dilihat berpotensi untuk melepasi tahap yang telah disasarkan oleh pihak kerajaan. Walaupun bilangan koperasi di Malaysia semakin bertambah saban tahun di mana jumlah koperasi pada tahun 2021 adalah sebanyak 14,834 buah berbanding 14,629 buah bagi tahun 2019 (SKM, 2022). Namun ia bukanlah merupakan satu petunjuk aras kepada kejayaan prestasi koperasi. Ini dibuktikan oleh SKM (2022) itu sendiri di mana daripada jumlah perolehan sektor koperasi itu sendiri di mana kadar perolehan sektor koperasi ini bagi tahun 2020 menurun sebanyak 9.4% manakala bagi tahun 2021 pula menurun sebanyak 8.6%. Berbalik kepada fokus kajian, kajian cuba untuk mengkaji hubungan antara sumber dengan prestasi koperasi dan sumber yang ingin dikaji adalah orientasi keusahawanan.

Orientasi keusahawanan merujuk kepada strategi keusahawanan yang dijalankan oleh sesebuah organisasi. Orientasi keusahawanan merupakan suatu proses, amalan dan aktiviti pembuatan keputusan yang membawa kepada kemasukan baharu dengan melibatkan proses inovatif, proaktif dan berani mengambil risiko (Lumpkin & Dess, 1996); (Shuhymee & Ghani, 2013). Orientasi keusahawanan ini telah dinyatakan sebagai salah satu sumber penting kepada organisasi. Ini adalah kerana ia mampu untuk mempengaruhi prestasi sesebuah organisasi.

Tinjauan Kesusasteraan

Kajian ini pada dasarnya adalah untuk mengukur tahap orientasi keusahawanan yang dimiliki oleh sesebuah koperasi. Menurut Dzulkarnain (2014), sektor koperasi telah diberikan pelbagai jenis bantuan oleh pihak kerajaan, maka sektor ini perlulah memberi penekanan kepada aspek kekuatan diri secara dalaman dengan amalan keusahawanan yang baik, boleh berdikari serta dapat mencapai keuntungan. Amalan keusahawanan yang tinggi menurut Azmah dan Fatimah (2008) menjadikan sesebuah koperasi bersifat agresif, inovatif, kreatif serta mengangkat strategi perniagaan yang baik dalam menempuh persaingan.

Teras Strategik Dasar Koperasi Negara 2011-2020 (SKM, 2010) telah menekankan pentingnya orientasi keusahawanan di dalam koperasi. Melalui pembudayaan keusahawanan dalam kalangan koperasi, maka amalan dan strategi keusahawanan dapat dilaksanakan dengan baik.

Orientasi keusahawanan telah dikenal pasti sebagai salah satu faktor yang paling penting untuk perkembangan dan produktiviti organisasi (Reaz, Tarun, & Salahuddin, 2015). Ia juga merupakan sebahagian daripada strategi keusahawanan yang penting dalam merangka strategi untuk menentukan kejayaan organisasi (Lumpkin & Dess, 1996) dan merupakan kunci utama untuk memastikan sama ada sesebuah organisasi itu mampu menjalankan aktiviti keusahawanan ataupun tidak (Franco & Haase, 2013). Perkara ini juga tidak terlepas kepada organisasi koperasi walaupun termaktub di dalam matlamat koperasi ia bukanlah sebuah organisasi yang bermotifkan keuntungan semata-mata.

Hasil tinjauan penyelidik mendapati Runyan, Huddleston, dan Swinney (2006) telah melihat orientasi keusahawanan sebagai salah satu sumber tidak ketara kepada organisasi. Apabila ia dinyatakan sebagai satu sumber, ini menjadikan orientasi keusahawanan sebagai salah satu alat atau mekanisme yang boleh menentukan prestasi sesebuah organisasi. Orientasi keusahawanan dilihat sebagai salah satu penggerak yang utama dalam menentukan prestasi sesebuah organisasi di mana Zahra dan Covin (1995) telah menunjukkan hubungan yang positif dan signifikan antara orientasi keusahawanan dan prestasi organisasi. Mereka menjelaskan dalam kajian mereka dengan menyatakan semakin tinggi tingkat atau tahap orientasi keusahawanan, maka semakin tinggilah tingkat prestasi sesebuah organisasi.

Fakhrul Anwar dan Selvamalar (2011) juga turut menyatakan bahawa orientasi keusahawanan sebagai faktor utama yang menentukan pertumbuhan dan keuntungan organisasi. Manakala, Amran, Zainal, Abdul Rashid, Khairul Anwar, dan Shamsul (2009) pula melihat orientasi keusahawanan sebagai gelagat keusahawanan pada tahap firma yang melibatkan suatu proses, kaedah dan kegiatan membuat keputusan untuk melaksanakan keusahawanan di dalam firma. Amran *et al.* (2009) telah menjelaskan dalam kajian mereka bahawa konsep orientasi keusahawanan mula diperkenalkan dengan permulaan kajian oleh Khanwalla (1977), Kets De Vries (1977), Miler dan Friesen (1982), dan Miller Miller (1983) dan selanjutnya diteruskan oleh Covin. dan Slevin (1989) dan Covin dan Slevin (1990). Kemudian, beliau menerangkan konsep orientasi keusahawanan ini diteruskan lagi oleh Hart (1991) dan kemudian oleh Dess, Lumpkin dan Covin (1997).

Untuk mengukur orientasi keusahawanan dalam sesebuah organisasi, penyelidik telah menyemak karya-karya penyelidik dan penulis terdahulu. Antaranya ialah karya kajian oleh Raymond, Charles, Alan, dan Henry (1978), Miller (1983), Dzulkarnain (2014), dan Shuhymee dan Ghani (2013). Penyelidik juga telah cuba membuka ruang dengan melihat dimensi-dimensi pengukuran orientasi keusahawanan melalui proses sorotan karya.

Pada dasarnya, kajian ini memilih untuk menggunakan dimensi proaktif, keagresifan bersaing, inovatif, autonomi, dan juga pengambilan risiko. Dimensi-dimensi ini dilihat amat penting bagi sesebuah organisasi di mana Lumpkin dan Dess (1996) pun menegaskan bahawa kesemua dimensi tersebut perlu bagi sesebuah organisasi yang ingin meneroka pasaran yang baharu atau mencuba sesuatu yang baharu. Malahan, jika ditinjau dimensi proaktif, inovatif dan pengambilan risiko pun telah banyak digunakan oleh sarjana-sarjana terdahulu dalam kajian mereka berkaitan dengan orientasi keusahawanan.

Kajian berkaitan hubungan antara orientasi keusahawanan dengan prestasi koperasi telah diuji oleh Dzulkarnain (2014) di Malaysia. Beliau telah mendapati orientasi keusahawanan mempunyai hubungan positif yang signifikan dengan prestasi koperasi. Walau bagaimanapun, beliau hanya menguji hubungan ini dalam populasi koperasi yang hanya melibatkan Wilayah

Utara Semenanjung Malaysia sahaja. Manakala, penyelidik pula berhasrat untuk melihat dalam populasi yang lebih luas yang mana melibatkan koperasi di Semenanjung Malaysia.

Selain itu, penyelidik juga ingin menguji sejauh mana pengaruh orientasi keusahawanan ke atas prestasi dan perbandingan pengaruh tersebut berbanding sumber lain masih menjadi tanda tanya. Oleh itu, masih timbul keperluan untuk memasukkan orientasi keusahawanan dalam kerangka kajian ini. Penyelidik berpendapat ujian untuk mengesahkan kembali hubungan di antara orientasi keusahawanan dengan prestasi koperasi perlu dibuat berdasarkan kepada hipotesis berikut.

H1 : Orientasi Keusahawanan mempunyai hubungan yang positif dan signifikan dengan prestasi koperasi.

Metadologi Kajian

Kajian ini memilih koperasi yang tersenarai dan berdaftar dengan Suruhanjaya Koperasi Malaysia (SKM) sehingga 31 Disember 2021 sebagai populasi kajian. Keterlibatan organisasi koperasi adalah koperasi yang beroperasi di negeri-negeri di Semenanjung Malaysia. Pemilihan populasi koperasi yang hanya melibatkan koperasi di Semenanjung Malaysia sahaja adalah disebabkan oleh kekangan-kekangan yang dihadapi dalam kajian ini dari segi masa, kewangan, kekurangan pengalaman, dan juga keupayaan yang dihadapi oleh penyelidik. Dari aspek saiz organisasi koperasi pula, kajian ini memilih untuk mengkaji koperasi yang bersaiz besar (makro), sederhana, kecil dan mikro iaitu melibatkan keseluruhan jenis koperasi. Ini adalah kerana keseluruhan populasi mencerminkan dapatan yang lebih menyeluruh. saiz sampel kajian adalah 370 koperasi seperti yang dicadangkan oleh Krejcie & Morgan (1976) dan Sekaran (2000). Persampelan rawak mudah digunakan, dan responden ialah pengerusi koperasi, timbalan pengerusi, setiausaha dan bendahari. Jawatan-jawatan ini adalah dianggap sebagai orang yang paling berpengetahuan dan berkebolehan dalam koperasi seperti yang dicadangkan oleh Dzulkarnain (2014).

Kajian ini memilih untuk menggunakan pendekatan *survey* ataupun tinjauan. Menurut Cooper dan Emory (1995), kaedah *survey* memerlukan penyelidik menyoal soalan kepada responden dan merekodkan maklum balas mereka untuk dianalisis. Kaedah *survey* juga dilihat lebih efisien malah lebih ekonomik berbanding pemerhatian. Kaedah *survey* ini juga banyak digunakan dalam kajian berlatar belakang perniagaan (Davis, 1996). Ini disebabkan perniagaan merupakan fenomena sosial di mana di dalamnya terdapat banyak urusan-urusan yang dijalankan oleh manusia dan banyak data yang diperlukan untuk membuat keputusan juga datangnya daripada manusia (Azahari, 2011)

Kajian ini telah mengambil dan menyesuaikan instrumen yang diadaptasi daripada beberapa sarjana terdahulu seperti Lumpkin dan Dess (1996) dan juga Dzulkarnain (2014).

Pengukuran aspek orientasi keusahawanan yang dibuat oleh pengkaji adalah meliputi tahap dimensi proaktif, keagresifan bersaing, inovatif, autonomi, dan juga pengambilan risiko. Terdapat lima item soalan bagi setiap dimensi iaitu proaktif, keagresifan bersaing, inovatif, dan juga pengambilan risiko. Manakala, bagi dimensi autonomi, terdapat enam item soalan untuk mengukur dimensi orientasi keusahawanan. Kajian ini memilih untuk menggunakan petunjuk-petunjuk prestasi koperasi seperti perolehan pendapatan, untung kasar, untung bersih, pertumbuhan jualan, keupayaan membiayai perniagaan dari keuntungan, pembayaran dividen, dan juga tanggung jawab sosial pihak koperasi kepada ahli dan masyarakat bagi mengukur prestasi koperasi. Instrumen yang digunakan bagi mengukur aspek-aspek tersebut adalah diperolehi dari sumber-sumber seperti yang telah dinyatakan.

Penyelidik menyediakan skala 1 hingga 6 bagi mengukur tahap pencapaian atau kejayaan sesebuah koperasi.

Dapatan Kajian dan Perbincangan

Kajian ini telah mengedarkan sebanyak 1,230 soal selidik kepada koperasi yang dipilih secara rawak, dan sebanyak 154 responden telah jawapan. Kadar tindak balas kajian ini ialah 41.6% iaitu lebih tinggi daripada 30% kadar tindak balas daripada tinjauan mel seperti yang didedahkan oleh Sekaran (2000).

Jadual 1 : Kadar Maklum Balas Soal Selidik

Perkara	Maklum balas
Jumlah soal selidik yang dihantar kepada responden	1,230
Jumlah soal selidik yang dikembalikan oleh responden	154
Jumlah soal selidik yang boleh digunakan untuk analisis	135
Peratusan kadar maklum balas secara keseluruhan	12.5%
Peratusan kadar maklum balas yang boleh digunakan	11%
Peratusan kadar maklum balas yang boleh digunakan berbanding saiz sampel seperti cadangan Krejcie dan Morgan (1970)	36.5%

Sebelum analisis dijalankan, data yang dikumpul perlu melalui proses pengimbasan dan pembersihan. Proses ini dilakukan bagi menentukan sama ada wujud ataupun tidak nilai tersisih ataupun *outlier* dalam soal selidik yang diterima. Nilai-nilai tersisih ini boleh disemak dengan membuat pemerhatian ke atas box plot dan juga menerusi ujian *z score*. Nilai *z scores* berada dalam lingkungan -2.5 hingga 2.5 dianggap tidak mempunyai *outlier*. Data juga telah melepasi ujian normaliti di mana ujian dijalankan menunjukkan bahawa nilai *Skewness* dan *Kurtosis* semua pemboleh ubah kajian adalah berada di dalam lingkungan +2 hingga -2 serta menghampiri nilai 0. Hasil dapatan ujian ini dapatlah dirumuskan bahawa pemboleh ubah yang terlibat adalah bertaburan secara normal.

Sebelum analisis selanjutnya, kajian perlu melakukan ujian bagi mengesahkan kesahihan dan kebolehpercayaan instrument. Analisis faktor dijalankan mengenai untuk menguji kesahan konstruk bagi instrumen tersebut. Analisis faktor adalah satu kaedah yang digunakan untuk menentukan ketepatan item yang digunakan dalam mengukur konstruk (Hair *et al.*, 2006). Hair *et al.* (2006) mencadangkan bahawa *factor loading* adalah dalam julat 0.30 sehingga 0.40 adalah baik dan mencapai nilai minimum bagi menerangkan faktor. Kajian ini mengambil 0.50 sebagai nilai *factor loading* seperti yang dicadangkan oleh Hair *et al.* (2006) kerana bilangan responden dalam kajian ini adalah 135 (seratus tiga puluh lima) responden. Ini bermakna bahawa nilai di bawah 0.50 akan digugurkan. Berikut merupakan keputusan ujian analisis faktor yang dijalankan ke atas pemboleh ubah orientasi keusahawanan dan juga prestasi koperasi. Hasil ujian tersebut bolehlah dirujuk pada jadual 2 dan jadual 3 berikut.

Jadual 2 : Keputusan Ujian Analisis Faktor Orientasi Keusahawanan

Item	Faktor						Komuniti
	1	2	3	4	5	6	
B12	0.964						0.949
B4	0.960						0.961
B1	0.957						0.957
B17	0.949						0.923
B2	0.659						0.582
B16		0.991					0.982
B11		0.979					0.963
B19		0.978					0.963
B3			0.964				0.970
B7			0.952				0.935
B9			0.915				0.916
B8				0.946			0.937
B13				0.912			0.865
B6				0.899			0.870
B25					0.851		0.740
B24					0.784		0.642
B23					0.775		0.717
B22					0.608		0.454
B14						0.990	0.995
B18						0.989	0.994
<i>Eigenvalue</i>	5.543	3.050	2.741	2.380	1.939	1.659	
Peratus varians (%)	27.717	15.251	13.706	11.902	9.694	8.294	
<i>Kaiser-Meyer-Olkin of Sampling Adequacy (KMO)</i>							0.687
<i>Bartlett's Test of Sphericity Approx. Chi Square</i>							3964.356
df							190
Sig.							0.001

Pemboleh ubah orientasi keusahawanan ini diukur dengan menggunakan 26 (dua puluh enam) item dengan lima (5) dimensi di mana item-item ini diadaptasikan dari kajian oleh Lumpkin dan Dess (1996) dan juga Dzulkarnain (2014). Analisis faktor dengan *varimax rotated principle components* telah dijalankan ke atas pemboleh ubah ini. Hasil analisis telah mewujudkan enam (6) faktor iaitu pengambilan risiko, autonomi, inovatif, proaktif, keagresifan bersaing dan berani dalam membuat keputusan di mana terdapat enam (6) item telah digugurkan. Dapatan ujian juga mendapati nilai KMO adalah 0.687 dan nilai penunjuk pada *Bartlett's test of sphericity* adalah signifikan (chi square = 3964.356, $p < .001$). Oleh itu, syarat minimum keperluan bagi kedua-dua pertunjuk tersebut telah dipenuhi. Maka analisis untuk pemboleh ubah ini dapat diteruskan untuk peringkat seterusnya.

Jadual 3 : Keputusan Ujian Analisis Faktor Prestasi Koperasi

Item			Komuniti
	1	2	
G3	0.928		0.902
G1	0.913		0.924
G5	0.892		0.865
G4	0.814		0.670
G2		0.930	0.894
G6		0.921	0.936
G7		0.896	0.832
<i>Eigenvalue</i>	4.393	1.629	
Peratus varians (%)	62.759	23.269	
<i>Kaiser-Meyer-Olkin of Sampling Adequacy</i>			0.780
<i>Bartlett's Test of Sphericity Approx. Chi Square</i>			1032.077
df			21
Sig.			0.001

Pemboleh ubah prestasi koperasi ini diukur dengan menggunakan tujuh (7) item yang terdiri daripada item kewangan dan item bukan kewangan. Analisis faktor dengan *varimax rotated principle components* telah dijalankan ke atas pemboleh ubah ini. Hasil analisis telah mewujudkan dua faktor iaitu faktor kewangan dan faktor sosial di mana tiada item yang digugurkan. Dapatan ujian juga mendapati nilai KMO adalah 0.780 dan nilai penunjuk pada *Bartlett's test of sphericity* adalah signifikan ($\chi^2 = 1032.077, p < .001$). Oleh itu, syarat minimum keperluan bagi kedua-dua pertunjuk tersebut telah dipenuhi. Maka analisis untuk pemboleh ubah ini dapat diteruskan untuk peringkat seterusnya.

Pengujian Hipotesis dan Perbincangan

Ujian kolerasi Pearson dilaksanakan adalah bagi menentukan tahap signifikan hubungan antara modal insan dengan prestasi koperasi. pemboleh ubah bebas dengan satu pemboleh ubah bersandar. Kekuatan hubungan dilihat menerusi nilai *correlation coefficient* ujian tersebut. Menurut Cohen (Pallant 2005), kekuatan sesuatu hubungan tersebut dapat diketahui dengan meneliti nilai *correlation coefficient* (rujuk Jadual 4).

Jadual 4 :Nilai Kolerasi dan Kekuatan Hubungan

Nilai Kolerasi	Kekuatan Hubungan
$r = 0.10$ to 0.29 / $r = -0.10$ to -0.29	Lemah
$r = 0.30$ to 0.49 / $r = -0.30$ to -0.49	Sederhana
$r = 0.50$ to 1.00 / $r = -0.50$ to -1.00	Kuat

Sumber : Pallant, 2005

Jadual 5 :Dapatan Kajian

UJIAN KOLERASI		
	Orientasi Keusahawanan	Prestasi Koperasi
Pearson Correlation	1	0.332**
Sig. (2-tailed)		0.001
N	135	135

Dapatan kajian mendapati hubungan antara orientasi keusahawanan dengan prestasi koperasi adalah positif signifikan. Dapatan ini menunjukkan nilai kolerasi iaitu $r = .332$, $p < .001$. Ini menunjukkan tahap kekuatan hubungan antara orientasi keusahawanan dengan prestasi koperasi berada dalam tahap sederhana.

Jadual 6 : Keputusan Ujian Ke atas Hipotesis Kajian

Hipotesis	Penyataan	Keputusan Hipotesis
H1	Modal insan mempunyai hubungan positif dan signifikan dengan prestasi koperasi.	Terima

Jadual 7 : Analisis Ujian Regresi Linear Orientasi Keusahawanan

Pemboleh ubah	B	SE_B	β	t	p
<i>Outcome: Prestasi</i>					
Konstan	1.933	.535		3.613	.001
<i>Peramal: Orientasi</i>					
Keusahawanan (EO)	.538	.133	.332	4.061	.001
R ²	.110				
R ² Terselaras	.104				
F	16.488	p = .001			

Ujian regresi linear juga telah dilakukan ke atas orientasi keusahawanan dengan prestasi koperasi. Keputusan ujian dalam Jadual 5.27 menunjukkan $R^2 = 0.110$, R^2 Terselaras = 0.104, $F = 16.488$, $p < 0.005$. Ini menjelaskan bahawa orientasi keusahawanan berpengaruh sebanyak 11% ke atas prestasi koperasi. Manakala, selebihnya iaitu 89% adalah dipengaruhi oleh faktor-faktor lain. Persamaan regresi bagi ujian ini adalah seperti berikut :

$$\text{Prestasi koperasi} = 1.933 + 0.538\text{EO}$$

Keputusan ini juga mendapati konstan sebanyak 1.933 menerangkan bahawa jika tiada orientasi keusahawanan, maka prestasi koperasi adalah 1.933. Sementara itu, *coefficient* regresi sebanyak 0.538 pula bermaksud jika berlaku sebarang penambahan (kerana bersifat positif) dalam orientasi keusahawanan, maka ini akan meningkatkan prestasi koperasi. Keputusan ujian ini mendapati orientasi keusahawanan berpengaruh secara signifikan ke atas prestasi koperasi pada nilai *coefficient* $p < .005$.

Kesimpulan dan Kajian Masa Hadapan

Kajian ini bertujuan untuk menyelidik hubungan antara orientasi keusahawanan dengan prestasi koperasi. Hasil kajian ini secara tidak langsung boleh menyumbang kepada ilmu pengetahuan yang baru dan akan memberi implikasi kepada koperasi. Di samping itu, kajian ini juga mungkin akan menambahkan lagi khazanah literatur dalam bidang sumber dan koperasi.

Sorotan karya berkaitan kajian yang melibatkan koperasi masih agak sukar ditemui terutamanya di Malaysia. Kebanyakan kajian mengenai koperasi hanya melibatkan pihak Maktab Koperasi Malaysia. Secara khususnya, adalah diharapkan kajian ini mampu menyumbang kefahaman secara teori mengenai hubungan antara sumber tak nyata dengan prestasi koperasi dan dapat dijadikan panduan kepada tenaga penggerak koperasi.

Dapatan kajian juga boleh digunakan oleh pihak-pihak yang berkepentingan iaitu Suruhanjaya Koperasi Malaysia dan juga Maktab Koperasi Malaysia di mana agensi ini memainkan peranan yang penting dalam mempertingkatkan imej koperasi.

Rujukan

- Amran, A., Zainal, A. A., Abdul Rashid, S. A., Khairul Anwar, S., & Shamsul, A. (2009). Kesan pengetahuan dan jaringan terhadap hubungan di antara orientasi keusahawanan firma dengan prestasi perusahaan kecil dan sederhana-asas tani di Malaysia: Impak penyederhana teknologi, strategi dan persekitaran yang ditanggap: Uitm.
- Azahari, R. (2011). *Amalan sumber, integrasi strategi dan hubungannya dengan prestasi pergudangan : Kajian ke atas gudang pengilang berlesen (GPB) di Semenanjung Malaysia*. Universiti Utara Malaysia.
- Azmah, O., & Fatimah, K. (2008). *Enhancing co-operative movement to achieve Malaysia's development goals*. Paper presented at the ICA Research Conference The Role of Co-operatives in Sustaining Development and Fostering Social Responsibility, Riva del Garda, Trento, Italy, 16-18 October 2008.
- Cooper, D. R., & Emory, C. W. (1995). *Business research methods (5 ed.)* (Vol. 5): IRWIN.
- Covin, J., & Covin, T. (1990). Competitive Aggressiveness, Environmental Context, and Small Firm Performance. *Entrepreneurship: Theory & Practice*, 14, 35-50.
- Davis, D. (1996). *Business research for decision making* Duxbury Press.
- Dzulkarnain, M. (2014). *Kesan penyederhanaan orientasi pasaran dan orientasi pasaran dan penyertaan ahli-ahli terhadap hubungan antara orientasi keusahawanan dan prestasi perniagaan firma koperasi*. Universiti Utara Malaysia.

- Fakhrul Anwar, Z., & Selvamalar, A. (2011). Entrepreneurial orientation and firm performance: The role of personality traits in Malay family firms in Malaysia. *International Journal of Business and Social Science* Vol. 2 No. 1 (January 2011), 59-71.
- Franco, M., & Haase, H. (2013). Firm resources and entrepreneurial orientation as determinants for collaborative entrepreneurship. *Management Decision*
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). *Multivariate Analysis. Volume 6*, Pearson.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135-172.
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16, 429-451.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29, 770-791.
- Miller, D., & Friesen, P. H. (1978). Archetypes of strategy formulation. *Management Science (pre-1986)*, 24(9), 921.
- MKM. (2010). *Siri Pengurusan MKM : Pentadbiran Koperasi* (2 ed.). Petaling Jaya: Maktab Koperasi Malaysia.
- Raymond, E. M., Charles, C. S., Alan, D. M., & Henry, C., Jr. (1978). Organizational strategy, structure, and process. *The Academy of Management Review*, 3(3), 546-562.
- Reaz Uddin., Tarun Kanti Bose., & Yousuf., S. (2015). Entrepreneurial orientation (EO) and performance of business in Khulna City, Bangladesh. *Journal of Small Business & Entrepreneurship*, 27(4), 343-353.
- Sekaran, U. (2000). *Research Methods For Business*. United States America: John Wiley & Sons.
- SKM. (2022). Statistik Gerakan Koperasi Malaysia. Retrieved 27 November 2022, from <http://www.skm.gov.my/images/images/Statistik-Gerakan-Koperasi/Statistik-Tahunan/>
- Shuhymee, A., & Ghani, A. A. (2013). Orientasi keusahawanan dan prestasi perniagaan: Pengaruh penyederhana gaya kepimpinan transformasi *Jurnal Pengurusan* 37, 115-123.

Zahra, S., & Covin, J. G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*, *10*, 43-58.

ASSESSING SUITABILITY AND USABILITY OF WELLNESS MEASUREMENT (FIVE FACTOR WELLNESS, 5F-Wel) IN MALAYSIA

Awanis KU ISHAK^{1*}, Norzalila Jamaludin^{2†}

^{1,2}*Universiti Utara Malaysia*

Abstract. Currently, employee wellness is extensively studied especially towards employees working in a highly stressful workplace such as Prison Department in Malaysia. Daily, these prison officers' deals with tasks that implicate prolonged stress conditions, emotional labour, constant threat of violence and excessive workload causing negative impact on their wellness. Hence, gauging prison officers' wellness at work is sensible and reasonable because their wellness is reflexive indicator of their performance and productivity that directly reflects to the Prison Department's performance. Hence, the importance of maintaining prison officers' wellness of prison officers is imperative to guarantee performance at work and effective public service that entails long-term benefit to the society. Within high risk and harsh workplace environment, prison officers' wellness and occupational stress are two interrelated issues and unavoidable. According to previous studies, occupational stress among prison officers is massive that directly causing their wellness to unswervingly deplete at long-term run. Gradual wellness fluctuation among human service employees would severely tarnish individual performance as well as organizational performance. This research looks into maintaining the prison officers' wellness while working under high and constant workplace stress. An assessment of the Five Factor Wellness is performed to measure the extent of prison officers' wellness. Therefore, the main aim of this study is to test the fitting of Five Factor Wellness measurement on prison officers at Malaysia Prison Department through reliability analysis as well as validity analyses. Ninety-one items of 5F-Wel are translated into Malay language. Data was collected from frontline prison warders at 12 Prison department locations. Exploratory factor analysis and confirmatory factor analysis were performed. Results indicated adapted items possess fitting internal consistency and validity.

Keywords: Prison officers' wellness, Malaysia Prison Department, Five Factor Wellness, validity and reliability, occupational stress.

* Corresponding author. School of Business Management, College of Business, Universiti Utara Malaysia. Tel: +60174370068. Email address: awanis@uum.edu.my

Introduction

Wellness issues are currently expanding in organizations of those dealing with high risk at work such as prison organization. The rationale of gauging prison officers' wellness at work is sensible since it is a reflexive indicator of their performance and productivity that directly reflect to the prison department performance (Martinez-Inig, 2021; Trounson and Pfeifer, 2016; 2017; MacDonald, 2005). The necessity of maintaining wellness of prison officers is imperative to guarantee performance at work and effective public service that entails long-term benefit to the society. In high risk and harsh workplace environment, prison warders' wellness and occupational stress are two interrelated issues. According to research and subjective evidences, occupational stress among prison officers is massive and it seriously retards and causes their wellness to deplete unswervingly at long-term run (Trounson and Pfeifer, 2016; 2017; Senol-Durak, Durak & Gencoz, 2006; Pfeffer, 2010; Purcell, Kinnie, Hutchinson, Rayton & Swart, 2003). Hence, prison officers encounter difficulties to maintain their wellness at work (Martinez-Inig, 2021; Maslach, Jackson and Leiter, 1996).

Besides, occupations such as police, ambulance workers, teachers, prison warders and customers service employees in call-centres are identified as being most stressful at work resulting depleting physical and psychological well-being and having the lowest level of job satisfaction (Johnson, Cooper, Cartwright, Donald, Taylor & Millet, 2005; Borritz, Rugulies, Bjorner, Villadsen, Mikkelsen & Kristensen, 2006) because these jobs implicate prolonged stress conditions, emotional labour, constant threat of violence and excessive workload that can have negative impact on employees' mental and physical health (Cooper, Dewe & O'Driscoll, 2001; Zapf, 2002; Holman & Fernie, 2000). Such employees that lack of optimal functioning and well balanced of being will not able to effectively service their customers.

Ultimately, neglecting employees' wellness severely interrupt and damage overall organizations' performance, profitability and increases overall organization's medical expenditure (Bergman, Arnetz, Wahstrom & Sandahl, 2007) and deteriorating wellness results outlay to public and private organizations, government and community (MacDonald, 2005). For this reason, prison work has often been characterized as one of the toughest positions in law enforcement. In order to maintain the role of law enforcers and safe custody, it is pertinent that prison officials be optimally functioning and well balanced. The unique working environment of prison warders, however, increasingly jeopardizes the fulfilment of such expectations. This is simply difficult to preserve prison warders' wellness on daily basis due to continual interaction of stress (Hall, 2004; Rosnah & Azmi, 2008).

Since The Malaysia Prison Department as people-oriented organization rely heavily on its manpower to effectively render law enforcement service to the society, it is wise for its management to realize the impact of prison warders' occupational stress can have on their wellness (Pfeffer, 2010; Purcell, Kinnie, Hutchinson, Rayton & Swart, 2003). As the Prison Department of Malaysia is a labour-intensive organization, prison warders' wellness is a detrimental element to ensure individual performance (Rosnah & Azmi, 2008). Prison warders with high level of wellness are more energetic, sharp thinkers, have high ability to cope with hardship and are more innovative and prolific. These characters are prerequisite to enhance prison warders' performance and Prison Department of Malaysia's performance (Myers & Sweeney, 2004, 2005, 2006).

Measurement for prison warders' wellness: 5f-wel

Myers and Sweeney (2005) defined wellness from holistic approach that integrates all aspects of the mind, body, and spirit in a purposeful manner with a goal of living life more fully. Wellness presents more than the absence of diseases; at a condition defined as 'health', and incorporates a concern for optimal functioning, or positive mental, physical, and spiritual health, and enthusiasm and zest for life. Wellness has an extensive history in counselling, medical, psychology and management. The terms "wellness", "well-being" and "health" are often used interchangeably, meant to refer to good health, a balanced life and optimal well-being (Myers & Sweeney, 2006). Traditionally many studies of individual health in organization have focused on psychological and physical ill health in the illness-health-wellness continuum. Wellness implicates beyond workplace injury and disease to include personal initiatives to achieve employee optimal health or wellness (Els & De La Rey, 2006). The current paper reports processes performed to develop and to validate employee wellness measurement according to Myers and Sweeney (2005) 5F-Wel in Malaysia culture and civilization among front line law enforcers i.e., prison warders in Prison Department of Malaysia. For this purpose of study, front line prison warders' wellness is defined as the optimum state of health and wellbeing that each front-line prison warders are capable of achieving despite endless strenuous conditions of prison environment (Myers and Sweeney, 2008).

The Five Factor Wellness Inventory (5F-Wel) is designed to assess the characteristics of wellness as a basis for helping individuals make choices toward healthier living (Myers & Sweeney, 2005). Myers and Sweeney (2008) emphasized wellness as the integration between the dynamic process of physical, mental and spiritual optimization assimilation and the outcome of the process. The instrument, Five Factor Wellness (5F-Wel) measurement consists of one first order, five second order and seventeen third order factors viewing at optimal health and wellbeing through the holistic approach in which mind, body and spiritual integrated in a purposeful manner with a goal of living life fully according to Adlerian Individual Psychology and general system theory (Von Bertalanffy, 1968). The 5F-Wel Inventory contained 73 items of total 91 items that are scored on scales representative of the higher-order total wellness, the five factors of the self, and the seventeen third-order factors. The first higher order factor is called Wellness; whilst the five second-order factors are i) Creative Self include third-order factors which are intelligence, control, emotion, work, positive humour of the individual; ii) Coping Self: inclusive third-order factors which are leisure, stress management, self-worth, realistic beliefs of the individual; iii) Social Self involving third-order factors such as individual's friendship and love and iv) Essential Self contain of third-order factors which are spirituality, gender identity, cultural identity, self-care of the individual and v) Physical Self comprises of third-order factors such as the nutrition and the exercise of the individual. Meanwhile additional 18 items used to assess the contextual factor as second order (with third-order factors inclusive of local, institutional, global and chronometrically factors) were tested (Myers and Sweeney, 2005).

Responses were obtained through a 4-point Likert-type response format where 1 = strongly disagree and 4 = strongly agree. Responses were summed up to yield the final composite score with a range from 10 – 40. The higher the score means increasing individual wellness level. Myers and Sweeney (2004) performed internal reliability on 5F-WEL and revealed result of

the internal reliability of 5F-WEL instrument indicated alpha coefficients are high for the first and second-order factors. In parallel, the 5-F WEL instrument has been used in various research in various settings (Els, 2005; Curry, 2007) thus having provide empirical evidence of both convergent and divergent validity of scales relative to other constructs such as self-efficacy, mattering, spirituality and job satisfaction. Meanwhile, in another study, Hattie, Myers, and Sweeney (2004) examined validity by selecting several instruments that claim to measure characteristics of wellness similar to the 5F-Wel and administered these instruments over a 4-year period to 299 graduate students in counselling courses. These instruments are Testwell, Coping Resource Inventory (CRI), Measures of Psychosocial Development (MPD), Inventory of Self-Actualising Characteristics (the ISAC) and lastly Developmental Counselling and Therapy (DCT). Overall results demonstrated that the instrument's reliability and validity coefficients were satisfactory (Els, 2006; Curry, 2007; Hattie, Myers and Sweeney, 2004) that reinforced and supported the measurement of holistic wellness of an individual.

Nevertheless, since this is the first time that this instrument is being tested and used on Malaysian population, 5F-Wel measure was slightly adapted to fit the Malaysia application. Items that relate to race groups were adapted to Malaysia as opposed to the groups found in western countries and was translated into Bahasa Melayu due to the cultural and academic background of respondents (Brislin, Lonner & Thorndike, 1970).

Method

Survey Design

Essentially the study was founded on four pertinent stages. Initially, an extensive accessible literature on employee wellness in prison environment was conducted. Later, based on literature, wellness factors and relevant measurable items were identified. Next, the measurement items used in this study was translated into Malay language questionnaire to suit cross-sectional survey design (Brislin, Lonner and Thorndike, 1970). Finally, exploratory and confirmatory factor analysis of employee wellness constructed is analysed and results were presented. Thus, in considering the thoroughness of this study, it contributes to an extension of the knowledge the theory and functional behavioural science through ascertaining relevant variables linked to employee wellness specifically in prison environment. The cross-sectional survey enabled the author to analyse the situation and let the author produced insinuations based on sample that may perhaps be generalized to the population. Pilot study was facilitated to recognize pertinent cause of measurement error. Multi-staged sampling technique was used where the technique combined two sampling technique namely stratified random sampling and simple random sampling to ensure optimal result (Cavana, Delahaye and Sekaran, 2001). Stratified random sampling was used to divide prison officer sample into homogenous subgroups; then took simple random sampling in each subgroup (Cavana, Delahaye and Sekaran, 2001). Multistage random sampling was used because the method enabled the author to address front line prison warder samples in the most effectual approach possible.

Participants

Respondents were consisted of 417 prison warders from eight prison institutions (totalled at 4,783). This number met appropriate respondents sample requirement (Krejcie & Morgan, 1970; Dean, Sullivan and Soe, 2009) between 354 and 356. In tandem, Tanaka (1993) advised

appropriate sampling calculation should be subjected to the measured construct variable (in this research, parcelled items) of 10:1. Meanwhile McMillan (2004) suggested the rate of return should be at least at 60%. Considering all suggestions, the author settled for the usable returned questionnaires amount because it was between the recommended sample size and also suitable for item parcelling purposes. The returned questionnaires were 417. The sample size satisfied the proposed minimum by Krejcie and Morgan (1970), and Tanaka (1993). This indicated acceptable returned questionnaires were at 62.68% and met the suggested rate (McMillan, 2004). 91 items of 5F-Wel questionnaire were completed by front line prison warders as selected respondents (n=417; mean age 33 years).

Item Parcelling

Generally, items were analysed in individual items instead of in parcels. However, in this study, the author applied item parcelling technique (Bandalos, 2002; Bandalos and Finney, 2001) on 5F-Wel items to reduce convergence problems (Little, Cunningham, Shahar and Widaman, 2002). Parcelled items technique was used in exploratory factor analysis, confirmatory factor analysis and structural modelling. According to Bandalos (2002), there were two advantages to this strategy which were i) item parcels commonly exhibit higher reliability than individual items and ii) using parcels reduces the number of estimated parameters in the measurement model; because model fit estimates are more stable when the respondent-to-parameter ratio is high, it is frequently preferable to combine indicators into parcels. For these reasons, and because the measures used in this study were previously validated, item parcels were used in the study. Referring to the measurement model in Diagram 1.a., there were twenty parcelled items that identify six common factors, namely coping self, creative self, essential self, physical self, social self and contextual self. These six common factors indicated a second-order factor, namely Wellness.

Wellness items were parcelled via twenty parcelled items that identify six common factors which are coping self, creative self, essential self, social self, physical self and contextual factor (Little, Cunningham and Shahar, 2002). The coping self as the first second-order factor was parcelled according to its third-order factors specifically realistic beliefs, leisure, self-worth and stress management. Next, creative-self factor items were parcelled according to its third-order factors which are intelligence, control, work, emotion and humour. Another second-order factor, essential self-items were parcelled under four third-order factors namely spirituality, gender identity, culture identity and self-care. Then, physical self second-order factor items were parcelled according to two third-order factors which are nutrition and exercise. Next, social self second-order factor items were parcelled based on third-order factors which are friendship and love. Lastly, additional second-order factor which is the contextual factor items were parcelled according to third-order factors: local, institutional and global and chronometrically. Items were parcelled prior exploratory factor analysis as the measurement items were significant (overall items = 91). In this study, exploratory analysis was carried out on the parcelled items to reduce convergent validity problem (Els and De La Ray, 2006).

Validity and Reliability of 5f-wel

Since this instrument was tested for the first time in Malaysia specifically among front line prison warders' front liners; where majority were uni-linguist (only understand and speak Bahasa Melayu), hence using non-translated 5F-Wel for study would instigate major language problem since respondents were not able to clearly grasp the meaning of instrument items.

Thus, researcher had taken stringent cross-cultural research precautions and procedures to ensure measurement error is minimized (Lynn, 1986; Brislin, Lonner and Thorndike, 1973). Consequently, ensuring the accurate validity and reliability analysis results of adapted instrument was of high priority.

Translational Validity: Face and Content Validity

According to Lynn (1986) survey research began with assessing the validity then the reliability of the research instrument selected. Accordingly, the author used systematic process to establish the validity and reliability of the research instrument as recommended by Lynn (1986) and Brislin, Lonner and Thorndike (1973). Initially, face and content validity assessment on the measurement were performed. Firstly, content validity assessment was performed. In this research, measurements to gauge construct were thoroughly appraised; otherwise, the percentage of measurement error of the construct would be overwhelming. The systematic process of content validity is inclusive of translation and back translation of the instrument as suggested by Brislin et al (1973). Firstly, the author translated the instrument from English (source language) to Malay (target language), and then the translated version was evaluated. Next, the Malay version was back translated to English by two bilingual experts and was again evaluated. Later both translated and back translated version were compared and evaluated by the authors and the bilingual experts. The translated version was tested on the prison warders before performing the actual test.

Initially, the original researcher was contacted for permission to use the instrument. Next, reviewing literature evidence of content validation studies and reported reliability statistics from published studies that have used the instrument was carried out. Since the original instrument mostly were used in the western country and not yet in own country, the author sought four practitioner experts' advice and opinions to evaluate and reword as needed. The sample for the experts was representative of the research population. The author ensured that the rewording of the instrument was based on the feedback from the expert advice. Lastly, the author selected content experts inclusive of academicians and practitioners to review for relevance and clarity (Lynn, 1986). Since Lynn (1986) recommended two to twenty content experts, the author contacted four experts (two from academic sector and another two from the practitioner). Next prior pilot test, face validity was performed to signify the suitability of the instrument to the study. Assessment sheets were distributed to ten front line prison warders to assess wording clarity, grasp of meaning capability as well as questionnaire style and layout. Face validity was performed to support content validity assessment.

Reliability of Measurement Model

The author performed reliability analysis on the Wellness measurement model. Tabachnick and Fidell (2007) described reliability analysis as how a measurement of construct constantly gauged the construct and how well the measurement items correspond with each other. Two common estimators of reliability analysis were internal consistency reliability and test-retest reliability. In this study, internal consistency reliability was utilized.

Two-Step Procedure in Structural Equation Modelling (SEM) Method

The author performed two-step procedure (Anderson and Gerbing, 1988) where an analysis of measurement was made through confirmatory factor analysis and followed by structural model

analysis. Prior the two-step procedure, the author had performed exploratory factor analysis on the measurement model to cluster items into common factors (Tabachnick & Fidell, 2007). EFA allows determining underlying constructs for a set of measured variables especially if the factor structure is not confirmed. After the factor structure was confirmed, the author facilitated the two-step procedure on the measurement model.

Results of the Study

Reliability

The Cronbach's alpha values ranged between .69 and .93. Cronbach's alpha for overall wellness, coping self, creative self, social self, essential self, physical self and contextual factor are .93, .70, .72, .73, .72, .69 and .80 respectively; indicating an acceptable internal consistency of the instrument. Detail is as highlighted in Table 1.

Constructs / Domains / Dimensions	Mean	Standard Deviation	Cronbach Coefficient Alpha Value α	No of Items
Wellness	278.00	21.17	.93	91
Coping Self	53.93	4.62	.70	18
Creative Self	56.00	4.69	.72	18
Social Self	27.88	3.08	.73	10
Essential Self	32.31	3.15	.72	16
Physical Self	29.64	3.48	.69	10
Contextual Factors	55.83	5.45	.80	18

Table 1: Internal consistency for first-order and second-order of wellness measurement

Translational Validity: Content and Face Validity

Generally, results for Content Validity Index (CVI) signified the validity and consistency of the measurement items contents with the conceptual framework. Initially six dimensions and 20 sub dimensions of total wellness were reviewed for relevance by 2 academicians and 2 practitioner experts using Lynn's process for content validation (Lynn, 1996). The analysis quantified percentage of experts who agreed on items relevancy. Items were deemed as having satisfactory CVI if percentage is at 88% or more, whilst percentage score between 70% and 87% are regard as doubtful. Percentage score at 69% or lower are eliminated. In the study, all 91 items were valid with content validity index ranging from 0.70 to 0.100. Therefore, all items were retained.

Exploratory Factor Analysis

Since this is the first time 5F-WEL was adapted into Bahasa Melayu and is tested in Malaysia, an exploratory factor analysis was performed to investigate the factorial validity of the translated instrument measurement. After parcelling, these parcel items were then been applied in exploratory factor analysis using principal axis factoring extraction method and varimax rotation. The parcelled items for each domain were forced to load on one factor at one time.

Items parcels with loading values of .30 and higher were deemed significantly contribute towards describing each second-order and third-order of wellness (Tabachnick and Fidell, 2007). EFA results for each second-order factors were demonstrated in Table 3. Kaiser-Meyer-Olkin values is at .830; above minimum .60 as implied by Tabachnick and Fidell (2007). Meanwhile Bartlett's Test of Sphericity tests was at significant level of $p = .000$ thus supported correlation matrix factorability. Detailed results are as shown in Table 2.

Loaded parcelled items according to five second-order factors specifically creative self (third-order factors are intelligence, control, work, emotion and humour), coping self (third-order factors are realistic beliefs, leisure, self-worth and stress management), essential self (third-order factors are spirituality, gender identity, self-care and culture identity), social self (third-order factors are love and friendship) and physical self (third-order factors are exercise and nutrition). Meanwhile additional second-order factor, contextual is loaded on local, institutional and global and chronometrically as third-order factors. Factor loadings of creative self-parcelled items are .528, .521 and .385 for work, intelligence and control respectively. Factor loadings for emotion and humour are lower than .3 indicating insignificant loadings.

	Coping Self	Creative Self	Essential Self	Physical Self	Social Self	Contextual Factors
KMO				.830		
Bartlett				.000		
MSA				>.6		
Sum Square Loadings				38.78%		
Factor Loading Range	.728	.545	.695	.358	.628	.703

Table 2 EFA of 5F-WEL: Factor loadings based on principal axis factoring and varimax rotation method

Next, factor loadings for coping self-parcelled items indicate significant factor loadings at .652, .574, .342 and .338 for leisure, self-worth, stress management and realistic beliefs respectively. Subsequently, significant factor loadings of parcelled items for essential self-dimensions namely spirituality, culture identity, gender identity and self-care are .531, .525, .522 and .453. Next, parcelled items dimension of social self specifically love and friendship are at .613 and .613 respectively. Lastly, factor loadings of physical self-dimensions explicitly exercise and nutrition are at .525 and .525. Meanwhile factor loadings for contextual factors namely global and chronometrically, institutional and local are at .722, 659 and .542. From the exploratory factor analysis results describe eighteen dimensions with significant factor loadings whilst another two dimensions specifically emotion and humour are of insignificant loadings. Loaded parcelled items according to five second-order factors specifically creative self (third-order factors are intelligence, control, work, emotion and humour), coping self (third-order factors are realistic beliefs, leisure, self-worth and stress management), essential self (third-order factors are spirituality, gender identity, self-care and culture identity), social self (third-order factors are love and friendship) and physical self (third-order factors are exercise and nutrition).

Meanwhile additional second-order factor, contextual is loaded on local, institutional and global and chronometrically as third-order factors. Factor loadings of creative self-parcelled items are .528, .521 and .385 for work, intelligence and control respectively. Factor loadings

for emotion and humour are lower than .3 indicating insignificant loadings. Next, factor loadings for coping self-parcelled items indicate significant factor loadings at .652, .574, .342 and .338 for leisure, self-worth, stress management and realistic beliefs respectively. Subsequently, significant factor loadings of parcelled items for essential self-dimensions namely spirituality, culture identity, gender identity and self-care are .531, .525, .522 and .453. Next, parcelled items dimension of social self specifically love and friendship are at .613 and .613 respectively. Lastly, factor loadings of physical self-dimensions explicitly exercise and nutrition are at .525 and .525. Meanwhile factor loadings for contextual factors namely global and chronometrically, institutional and local are at .722, .659 and .542.

From the exploratory factor analysis results describe eighteen dimensions with significant factor loadings whilst another two dimensions specifically emotion and humour are of insignificant loadings. Detailed description of factor loadings is depicted in Table 3.

Confirmatory Factor Analysis

According to the exploratory factor analysis results, the parcelled items represent the composite score of each factor of wellness. Using parcelled items as grouping criteria, this technique enables multidimensionality of the construct as demonstrated in Table 2 and 3. After exploratory factor analysis and items parcelling of 5F-WEL measurement has been performed, the parcelled items are ready for confirmatory factor analysis. CFA is illustrated in Diagram 1a hypothesized second-order factor of wellness measurement model and Diagram 1b modified second-order factor of wellness measurement model.

	Creative Self	Coping Self	Essential Self	Social Self	Physical Self	Context Factor
Work	.528					
Intelligence	.521					
Control	.385					
Emotion	-					
Humor	-					
Leisure		.652				
Self Worth		.574				
Stress Management		.342				
Realistic Belief		.338				
Spirituality			.531			
Culture Identity			.525			
Gender Identity			.522			
Self Care			.453			
Love				.613		
Friendship				.613		
Exercise					.525	
Nutrition					.525	
Global and Chronometrical						.722

Institutional	.659
Local	.542

Table 3 Factor loadings 5F-WEL according to dimensions

Confirmatory factor analysis on wellness is elucidated according second-order factors when the first-order factors are explained by a higher order factor structure. Referring to the modified measurement model result in Diagram 1.b., there are fourteen parcelled items that identify six common factors, namely coping self, creative self, essential self, physical self, social self and contextual self. These six common factors indicate a second-order factor, namely Wellness. The goodness of fit test of the model is stated as chi square value, $\chi^2/df=2.032$ ($\chi^2 = 134.139$, $df=66$, $p=.000$, $n=417$), $TLI=.912$, $CFI=.936$, $GFI = .957$, $AGFI = .932$ and $SRMR = .0457$. Test of goodness of fit shows satisfactory results with RMSEA value of .049 represent moderate fit (Steiger, 2007). Only fourteen from twenty parcelled items as highlighted in hypothesized measurement model are subjected to confirmatory factor analysis. Six deleted parcelled items are stress management, humour, emotion, gender identity, culture identity and institutional concern.

Factor loadings for the six common factors are between $\beta =.73$, $t = 5.358$ and $\beta =.93$, $t = 9.642$, significant at $p = .000$. Whilst factors loadings of fourteen parcelled items are between $\beta =.36$, $t = 5.039$ and $\beta =.771$, $t = 13.409$, significant at $p = .000$. Hence convergent validity of the second-order factor model has been established. Details are as highlighted in Diagram 1a and Diagram 1b. Discriminant between each factor are evaluated. Details on goodness of fit result are depicted in Diagram 2. The correlations between the personality factors ranged from the lowest value, $r = .45$, $t = 5.199$, $p = .000$ (between social self and essential self) to the highest $r = .88$, $t = 6.262$, $p = .000$ (between creative self and contextual factor). As a general rule, beta values of less than .90 indicated that wellness dimensions are discriminant between one another (John & Benet-Martinez, 2000). Thus, it is proven that personality factors are discriminant between one another.

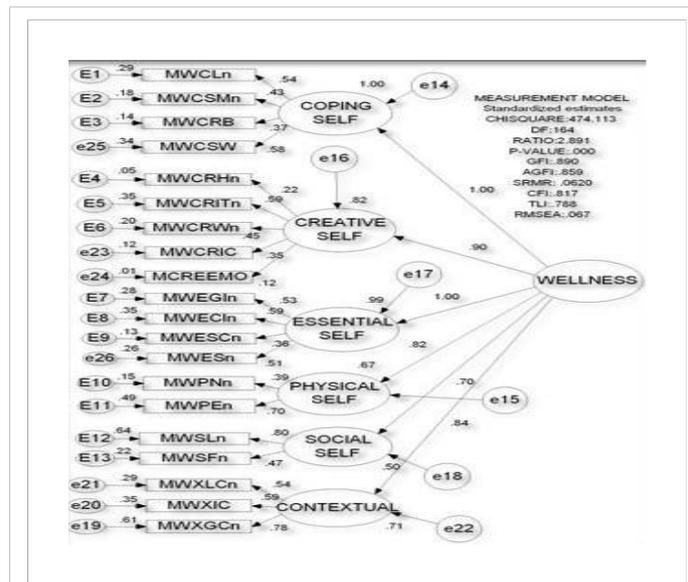


Diagram 1a Hypothesized Second-order factor of Wellness Measurement Model

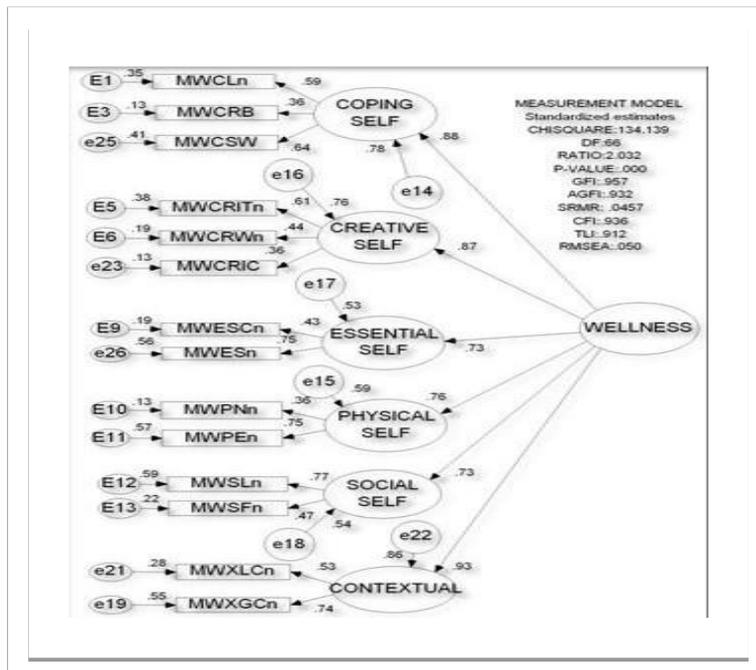


Diagram 1b Modified Second-order factor of Wellness Measurement Model.

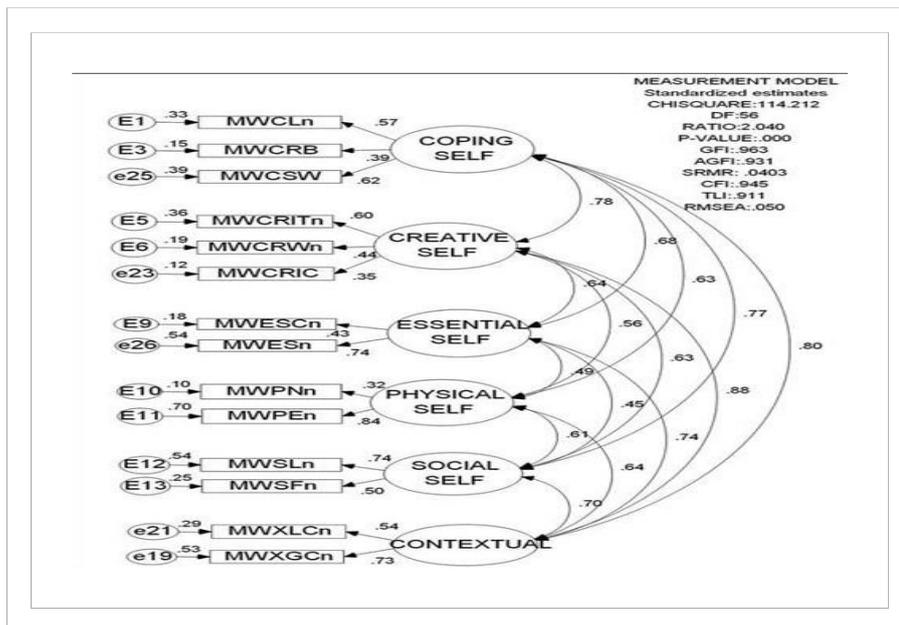


Diagram 2: Wellness measurement model – discriminant validity

Discussion, Conclusion, Conclusion and Future Research Direction

Discussion and Conclusion

Wellness was literally and empirically distinguished as the spotlight of this study. Essentially, realizing wellness went beyond hindering from diseases or eluding from illness where wellness accentuates on infirmity avoidance and way of life options to ensure optimal functioning (Myers, Sweeney, & Witmer, 2000). It therefore could be recapitulated as conscious and

incessant practice of harmonizing and developing individual's overall well-being in all realms of life specifically intellectually, physically, socially, emotionally, occupationally and spiritually. Myers and Sweeney (2005) presented the Indivisible Self: An Evidence-Based Model of Wellness that consisted of 17 wellness and 3 contextual factors to encapsulate the essence of wellness. Wellness was applied through the 5F-Wel instrument to assess front line prison warders' wellness level in accordance to the theoretical definition of wellness (Myers & Sweeney, 2005).

Therefore, the main aim of this study is to test the fitting of theoretical-based measurement of wellness on front line prison warders in Prison Department of Malaysia through reliability analysis as well as validity analyses. It is the first time 5F-Wel has been empirically used as measuring instrument in Malaysian culture. In exploratory factor analysis, the author performed exploratory factor analysis using principal axis factoring and varimax rotation method. Factor loadings of eighteen parcelled items were more than .3 namely work, intelligence, control, leisure, stress management, realistic beliefs, self-worth, nutrition, exercise, friendship, love, gender identity, self-care, spirituality, culture identity, global and chronometrically, institutional and local safety. Whilst emotion and control parcelled item were omitted.

Later on, confirmatory factor analysis was performed. Confirmatory factor analysis result showed an acceptable goodness of fit indices for the measurement model of second-order wellness in accordance to Malaysia respondents. End result indicated modified employee wellness measurement model which then applied to actual respondents and tested through confirmatory factor analysis. Fourteen parcelled items of wellness that identify six second order factors of wellness are appropriate for front line prison warders which are (i) coping self (leisure, realistic belief and self worth; ii) creative self (intelligence, work and control); iii) essential self (spirituality and self care); iv) physical self (nutrition and exercise); v) social self (friendship and love) and vi) contextual factor (local factor and global and chronometrically factor).

The wellness data confirmed the independent wellness model for the front-line prison warders in prison department of Malaysia with a RMSEA value of 0.028. Browne and Cudeck (1993) regarded this value as a reasonable error of approximation. It was concluded that The Indivisible Self: An Evidence-Based Model of Wellness (and the 5Factor Wellness Inventory) could be used as an independent model to explain prison offices' wellness in Prison Department of Malaysia.

In general, the analyses results were reasonably fitting as established from the reliability analysis, exploratory factor analysis and confirmatory factor analysis. The factor analysis results pointed to leisure, self-worth, realistic beliefs, intellectual, work, control, self-care, spirituality, nutrition, exercise, friendship, love, local, global and chronometrically as reliable factors as measured by the 5F-Wel instrument. Goodness-of-fit statistics confirmed good fit (RMSEA) for a wellness model for use among prison employees.

Recommendation and Future Research Direction

Prison department also may enhance the development of front-line prison warders' wellness by presenting developmental interventions in a consistent, structured and focused way. By providing employees with the necessary knowledge, skills, material, instruments, support and other resources, the staff members might experience that their job demands are under their personal control. It could well be that employees who were allowed a degree of independence and freedom of choice to self-manage their own health status, were more likely to act autonomously while at work. Future research needed to focus on the application of The Indivisible Self: An Evidence-Based Model of Wellness as well as the 5FWel measurement and needed to be validated for various demography to provide adequate and pertinent statistical norms for Malaysian populations and conditions.

Further investigation in particular on Malaysia respondents' wellness is also needed to extend employee wellness model as proposed in this research. In the nutshell, greater focus had to be directed at achieving overall wellness and improving the wellness dispositions of employees. Implementation of a strategic health and wellness programme that incorporated all wellness factors that contributed to front line prison warders' wellness might reduce their absence due to sickness in organizations whilst increasing their profitability at the same time.

Acknowledgement

The authors wish to thank Drs. Jane Myers (deceased) and Tom Sweeney, original authors of the Five Factor Wellness Inventory and Indivisible Self Wellness Model, for their support for this research as well as to Malaysia Prison Department for their cooperation.

References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modelling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3), 411-423.
- Bandalos, D. L. (2002). The effects of item parcelling on goodness-of-fit and parameter estimate bias in structural equation modelling. *Structural Equation Modelling*, 9, 78-102.
- Bandalos, D. L., & Finney, S. J. (2001). Item parceling issues in structural equation modeling. In G. A. Marcoulides and R. E. Schumacker (Eds.), *New developments and techniques in structural equation modeling* (pp. 269-296). Mahwah, New Jersey, USA: Lawrence Erlbaum.
- Bergman, D.; Arnetz, B.; Wahstrom, R. & Sandahl, C. (2007). Effects of Dialogue Groups on Physicians' Work Environment. *Journal of Health Organization and Management*, 21(1), 27-38.
- Borritz, M.; Rugulies, R.; Bjorner, J.B.; Villadsen, E.; Mikkelsen, O.A. & Kristensen, T.S (2006). Burnout among Employees in Human Service Work: Design and Baseline Findings of PUMA Study. *Scand J Public Health*, 34, 49–58.
- Brislin, R., Lonner, W.J. & Thorndike, R.L. (1973). *Cross-cultural research methods*. New York, USA: John Wiley.

- Brown M. W., & Cudeck R. (1993). Alternative ways of assessing model fit. In: Bollen KA, Long JS, editors. *Testing Structural Equation Models*. Newbury Park, CA: Sage, 136–162.
- Cavana, R.Y., Delahaye, B.L. & Sekaran, U. (2001). *Applied business research: quantitative and qualitative methods*. Queensland, Australia: Wiley.
- Cooper, C. L.; Dewe, P. J. & O’Driscoll M. P. (2001). *Organizational Stress: A Review and Critique of Theory, Research and Applications*. Sage publications.
- Curry, J.R. (2007). An investigation of relationship between counselling self-efficacy and counsellor wellness among counsellor education students. Unpublished doctoral dissertation. University of Central Florida: USA.
- Davis L.L. (1992). Instrument review: Getting the most from a panel of experts. *Applied Nursing Research*, 5, 194-197.
- Dean, A.G., Sullivan, K.M., & Soe, M.M. (2007) OpenEpi, Version 2.2: Open-Source Epidemiologic Statistics for Public Health. [Online] Available: <http://www.OpenEpi.com> (March 15, 2008).
- Els, D.A. & De La Rey, R.P. (2006). Developing a holistic wellness model. *SA Journal of Human Resource Management*, 4 (2), 46-56.
- Forman-Dolan, J.; Caggiano, C; Anillo, I and Kennedy, T.D. (2022). Burnout among Professionals Working in Corrections: A Two Stage Review. *International Journal Environmental Research Public Health*. 19, 9954. <https://doi.org/10.3390/ijerph19169954>
- Hall, D. S. 2004. Work-related Stress of Registered Nurse in Hospital Setting. *Journal for Nurses in Staff Development-JNSD*, 20(1), 6-14. [Online] Available: <http://gateway.ut.ovid.com/gw2/ovidwe b.cgi> (April 8, 2010)
- Hattie, J. A., Myers, J. E., & Sweeney, T. J. (2004). A Factor Structure of Wellness: Theory, Assessment, Analysis and Practice. *Journal of Counselling & Development*, 82 (Summer), 354-364.
- Hettler, W. (1984). Wellness: Encouraging a lifetime pursuit of excellence. *Health Values: Achieving High Level Wellness*, 8, 13-17.
- Holman, D. & Fernie, S. (2000). Can I help you? Call centres and job satisfaction. *Centrepiece*, 5(1).
- Gerbing, D.W., & Anderson, J.C. (1993). Monte Carlo evaluations of goodness-of-fit indices for structural equation models. In K.A. Bollen, & J.S. Long (eds.), *Testing structural equation models*. Newbury Park, California, USA: Sage.
- Johnson, S.; Cooper, C. L.; Cartwright, S.; Donald, I.; Taylor, P. & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20(2), 178-187.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modelling*, 9, 151-173.
- Lynn, M.R. (1986). Determination and quantification of content validity. *Nursing Research*, 35, 382-385.
- MacDonald, L.A.C. (2005). *Wellness at Work: Protecting and Promoting Employee Well-being*. CIPD: London.

- Martinez-Inig, D. (2021). The role of prison officers' regulation of inmates' effects on their exposure to violent behaviours and the development of PTSD symptoms. *European Journal of Psychotraumatology*, 12, 1956126. Taylor & Francis. Retrieved from <https://doi.org/10.1080/20008198.2021.1956126>
- McMillan, J. (2004). Defining interactivity. In: P. Rose, Editor, *The Proceedings of the 2004 Conference of the American Academy of Advertising*. American Academy of Advertising, 1.
- Myers, J. E., & Sweeney, T. J. (2008). Wellness counselling: The evidence bases for practice. *Journal of Counselling & Development*, 86, 482-493.
- Myers, J.E., & Sweeney, T.J. (2004). The Indivisible Self: an evidence-based model of wellness. *Journal of Individual Psychology*, 60, 234-244.
- Myers, J. E., & Sweeney, T. J. (2005). The indivisible self: An evidence-based model of wellness. *The Journal of Individual Psychology*, 61(3), 269-279
- Myers, J. E., Sweeney, T. J. & Witmer, J. M. (2000). The Wheel of Wellness counselling for wellness: A holistic model for treatment planning. *Journal of Counseling and Development*, 78(3), 251-266.
- Pfeffer, J. (2010). Building sustainable organizations: the human factor. *Academy of Human Perspectives*, 34-45.
- Purcell, J., Kinnie, N., Hutchinson, S., Rayton, B. & Swart, J. (2003). *Understanding the People and Performance Link: Unlocking the Black Box*. London: Chartered Institute for Personnel and Development.
- Rosnah, I. & Azmi, M.T. (2008). Occupational stress and personality characteristics: are they related? *Journal of Community Health*, 14(2), 78-85.
- John, O. P., & Benet-Martinez, V. (2000). Measurement: reliability, constructs validation, and scale construction. In H. T. Reis & C. M. Judd (Eds.), *Handbook of Research Methods in Social and Personality Psychology* (339–369). New York, NY, US: Cambridge University Press.
- Senol-Durak, E., Durak, M. & Gencoz, T. (2006). Development of Work Stress Scale for correctional officers. *Journal of Occupational Rehabilitation*, 16(1), 157-168.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th Ed.) Boston, USA: Allyn and Bacon.
- Tanaka, J.S. (1993). Multifaceted conceptions of fit in structural equation models. In K.A. Bollen, & J.S. Long (eds.), *Testing structural equation models*. Newbury Park, CA: Sage.
- Tilden V.P., Nelson C.A., & May B.A. (1990). Use of qualitative methods to enhance content validity. *Nursing Research*, 39, 172-175.
- Trounson, J.S. and Pfeifer, J.E. (2017). Corrections officer wellbeing: training challenges and opportunities. *Practice – The New Zealand Corrections Journal*. July 2017. 5 (1). 22-28.
- Trounson, J. S., & Pfeifer, J. E. (2016). Promoting correctional officer wellbeing: Guidelines and suggestions for developing psychological training programs. *Advancing Corrections*. 1,56–64.
- Trounson, J. S., Pfeifer, J. E., & Critchley, C. (2016). Correctional officers and work-related environmental adversity: A cross-occupational comparison. *Applied Psychology in Criminal Justice*. 12(1), 18–35.
- Trounson, J. S., Pfeifer, J. E., Skues, J., & Ogloff, J. R. P. (2016). How an officer responds to adversity matters: Informing the development of preventative psychological training

for correctional officers. In “Correctional Leadership: Engaging Hearts and Minds”: International Corrections and Prisons Association 18th Conference Proceedings. Bucharest, Romania (16) (PDF) *Corrections officer wellbeing: Training challenges and opportunities.*:

https://www.researchgate.net/publication/318814507_Corrections_officer_wellbeing_Training_challenges_and_opportunities [accessed Dec 01 2022].

Von Bertalanffy (1968). *General System Theory*. Foundations, Development, Applications. New York: Braziller.

Wynd, C.A., Schmidt, B., & Schaefer, M.A. (2003). Two quantitative approaches for estimating instrument content validity. *Western Journal of Nursing Research*, 25, 508-518.

Zapf, D. (2002). Emotion work and psychological well-being. A review of the literature and some conceptual considerations. *Human Resource Management Review*, 12, 237-268.

FACTORS INFLUENCING CONSUMER INTENTION IN PURCHASING GREEN PRODUCTS IN MALAYSIA

Norliza HAMIR BASAH¹, Syahirah Syuhada SOHIBUL BASRI²

^{1,2}*Universiti Utara Malaysia*

Abstract. This research paper aim is to investigate green purchase intention and behavior using the theory of planned behavior (TPB) which includes attitude, subjective norm and perceived behavioral control as the variable. This study used a quantitative approach with questionnaire as the tools to collect the data. The questionnaire was administered online through Google Forms. Cronbach's Alpha was used to test the reliability and performance of the measurement scales, while correlation and regression analysis then used to validate the hypothesis and to meet the research objectives. The result of these analyses shows H1, H2, H3, and H4 have significant value at 0.00 in which makes the hypothesis is accepted. Furthermore, the data analysis method is limited to correlation and regressions to test rich conceptual model as presented.

Keywords: Green products, consumer intention and factors.

*Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: norlizahamirbasah@gmail.com

Introduction

Over the years, due to industrialization all over the world, natural resources have been sacred and exhausted continuously. According to Bairstow (2020), all environmental threats, including extreme weather events, environmental disruption and natural disasters such as earthquakes, tsunamis and climate failures are the top five global threats in terms of likelihood for 2020. Due to this situation local communities and authorities started to be frightened by environmental risks, and several countries responded by joining the green movement (Gilal et al., 2019). Individuals starting to be sustainable with their consumption and green consumer practices have flourished and are gaining more worldwide attention due to the environmental crisis (Qi & Ploeger, 2018).

Even if it is not common, more and more people realize that our world resources and habitats need to be managed sustainably. The awareness has been evolved for a hundred years, but the momentum has been started in the last few decades. A survey done by Global Consumer Confidence and Nielsen in 2017 showed that the consumers nowadays are showing concern on environmental issues. The highest environments issue these consumers have been on water pollution with 90% awareness while the lowest is at 54% with water shortage (Global Consumers Seek Companies That Care about Environmental Issues, 2018).

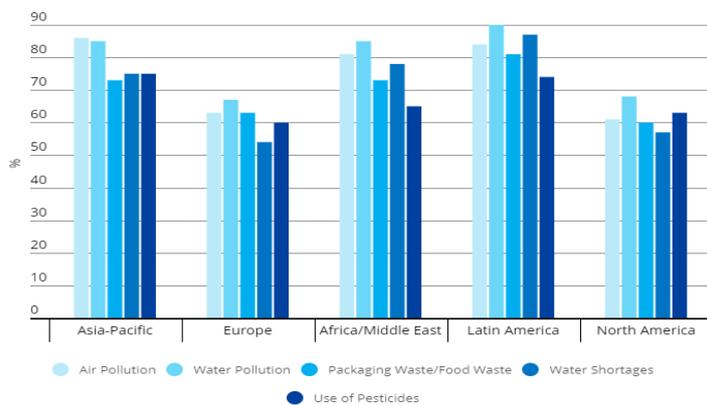


Figure 1.1: *Consumer Concern Regarding the Environmental Issues*

Source: Global Consumers Seek Companies That Care about Environmental Issues, 2018

One way to overcome the problem is to motivate consumers to buy green products. Green products could also be defined as eco - friendly products with limited environmental impacts, including using the least harmful chemicals (Gilal et al., 2019). Such green goods attribute usually can be recyclable, longer-lived, energy-efficient and biodegradable (Goh & Abdul Wahid, 2014). If individuals starting to use green products, they can contribute to the protection of the natural resources which include water, metal and land.

The cost of producing green product also can be decreased with the economies of scale as more customers start purchasing a green product because of the increase in supply. If the community around the world starts purchasing the green product, it would significantly improve the health of the planet and also the natural resources (Karjaluo et al., 2017). Therefore, the main objective of this study is to determine the level level of awareness among consumer regarding

green products and to determine the factors than influence the consumers to buy green products by using quantitative methods.

Green Purchasing Behavior

Sivasankaran (2017) suggested that purchasing behavior is an action that produces interactions between available goods and the customer. After recognizing a need or a want, customer starts attempting to find products or services that fit their requirements. Green purchasing behavior, meanwhile, applies to the buying of sustainable friendly goods or renewable goods that are recyclable and avoid items that harm the environment and population (Jaiswal & Kant, 2018). According to Joshi & Rahman (2015), green purchasing suggests that consumers are environmentally responsible for buying eco-friendly goods and services to reduce environmental damage.

Problem statement

The issue with distrust among consumer is because companies tend to “green washing” their products. Customers become wary of the authentic of these so-called green products. Green washing may occur in many ways, include being deliberately vague or making false statements (Morgan, 2018). Chen et al. (2013) also indicate that green washing may negatively influence word-of-mouth, perceived green quality, and green trust and will minimize consumer confidence in green goods. Due to these reasons, companies need to explain correctly without exaggerating their products values.

The study on green purchase behavior has become one of the crucial topics globally among the researcher. However, most of the studies that have made great contributions on this topic are mostly are done in the western region such United States and the European countries (Amanina & Shaari, 2018). Limited studies have been discusses regarding this topic in Malaysia. This makes it hard to understand Malaysian green purchase behavior because of the limited data that can be referred. Based on the gaps from previous studies in relation to consumer green purchasing behavior, hence this study aims to investigate green purchase intention and behavior using the theory of planned behavior (TPB) which includes attitude, subjective norm and perceived behavioral control as the variable.

Literature review

Attitude

Toh and Selvan (2015), mentioned that attitude with respect to an individual or an entity can be described as a manner, temperament, feeling, role and others. People may have either a favorable or unfavorable attitude toward a person or an object. Pande and Soodan (2015) described attitudes as evaluations of a person, whether favorable or unfavorable towards an object, data or individual. They view the attitude as a lasting, general assessment of individuals, objects, advertisements or issues. As indicated by Widarto (2018), attitude is deliberate to be an important factor in impacting consumer intention in the purchase of goods as those with strong attitudes seemed to have more motivated to buy the products.



Figure 2: Framework of the study

Underpinning theory

Theory of Plan Behavior (TPB)

Theory of Planned Behavior (TPB) is introduced by Ajzen (Procter et al., 2019; Shukla, 2019) and it is the most popular conceptual paradigm for examining the dynamics and progenitors of purchase behavior (Maichum et al., 2016; Zhang et al., 2019). It is the extension of the Theory of Reasoned Action (TRA) that describes the behavioral intent of two variables that is the attitude and subjective norms (Ajzen, 1991). According to TRA, the behavior is the product of behavioral intentions. In contrast, behavioral intentions are defined by attitudes and subjective norms. At a very fundamental level, individual behavioral beliefs and social norms affect the creation of attitudes and subjective norms (Xiao, 2019).

Research Approach

This study adapted Theory of Planned Behavior as the underpinning theory, which is why the researcher decided to use the deductive method instead of the inductive approach because it is more applicable for this research. The deductive method should be based on any conceptual basis on which any number of hypotheses can be formed from (Woiceshyn & Daellenbach, 2018). The descriptive method was applied in this research approach using the survey. Descriptive method refers to the type of research aimed at collecting data regarding the current state of the hypothesis. This form of analysis aims to provide a detailed profile of people, situations or incidents (Rahi, 2017). The relationship between dependent variables, mediating variables and independent variables are essential factors to be established in this study.

Sampling Method

In this study, for the sampling method the researcher has chosen the probability simple random sampling. This is as everyone in the population of interest has an equal opportunity to be selected as a research participant (Majid, 2018).

Table 3.1: Krejcie and Morgan Sampling Table

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

Source: Krejcie & Morgan (1970)

Implication of the study

This research results will provide marketers with some insight and input to face many challenges in persuading customers to purchase eco-friendly goods. To effectively understand and comprehend this new market segment, they need to comprehend the path that connected the environmental issue into green buying activity. Through this intelligence, marketer will be able to formulate their strategies to persuade customers more effectively to purchase green goods. As the segment continues to expand and receive support from the government, correct marketing strategies can help these businesses to attract customers. With increasing in green product demand, then only this niche market can grow.

Discussion and Conclusion

Based on the result from the regression analysis, it is found that all independent variable which is attitude, subjective norms and perceived behavioral control have a relationship with purchase intention. It is proved that the H1, H2 and H3 are valid. The data also indicated that purchase intention can influence the purchasing behavior of the consumer in which supported the H4. This determines that there are indirect effect between the independent variable, mediator and dependent variables. The outcome has a similar result with a few studies that use purchase intention as the mediator (Sethi, 2018; Ndfirepi & Matema, 2019) (Rehman et al., 2019). This further proved by Bhutto et al. (2019) in their study about young Chinese consumer's green purchase behavior where purchase intention mediates the independent and dependent variable of the study. Hence, this established the role of purchase intention as the mediator between attitude, subjective norms and perceived behavioral control with purchasing behavior.

References

- Bairstow, J. (2020, January 16). *Climate threats top chart of global concerns for 2020*. Energy Live News. <https://www.energylivenews.com/2020/01/16/climate-threats-top-chart-of-global-concerns-for-2020/>
- Bhutto, M. Y., Zeng, F., Soomro, Y. A., & Khan, M. A. (2019). Young Chinese consumer decision making in buying green products: An application of theory of planned behavior with gender and price transparency. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 13(3), 599–619. <https://doi.org/http://hdl.handle.net/10419/205269>
- Gilal, F. G., Chandani, K., Gilal, R. G., Gilal, N. G., Gilal, W. G., & Channa, N. A. (2019). Towards a new model for green consumer behaviour: A self-determination theory perspective. *Sustainable Development*. <https://doi.org/10.1002/sd.2021>
- Global Consumers Seek Companies That Care About Environmental Issues*. (2018, November 9). Nielsen.Com. <https://www.nielsen.com/eu/en/insights/article/2018/global-consumers-seek-companies-that-care-about-environmental-issues/>
- Goh, Y.-N., & Abdul Wahid, N. (2014). A Review on Green Purchase Behaviour Trend of Malaysian Consumers. *Asian Social Science*, 11(2). <https://doi.org/10.5539/ass.v11n2p103>
- Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*, 41, 60–69. <https://doi.org/10.1016/j.jretconser.2017.11.008>
- Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, 3(1–2), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>
- Karjaluoto, H., Munnukka, J., & Kiuru, K. (2016). Brand love and positive word of mouth: the moderating effects of experience and price. *Journal of Product & Brand Management*, 25(6), 527–537. <https://doi.org/10.1108/jpbm-03-2015-0834>
- Ndofirepi, T. M., & Matema, S. C. (2019). Exploring Green Purchasing Behaviour among College Students in a Developing Economy. *Southern African Business Review*.
- Qi, X., & Ploeger, A. (2018). Explaining consumers' intentions towards purchasing green food in Qingdao, China: The amendment and extension of the theory of planned behavior. *Appetite*, 133, 414–422. <https://doi.org/10.1016/j.appet.2018.12.004>
- Rahi, S. (2017). Research Design and Methods: A Systematic Review of Research Paradigms, Sampling Issues and Instruments Development. *International Journal of Economics & Management Sciences*, 06(02). <https://doi.org/10.4172/2162-6359.1000403>
- Rehman, S. U., Bhatti, A., Mohamed, R., & Ayoup, H. (2019). The moderating role of trust and commitment between consumer purchase intention and online shopping behavior in the context of Pakistan. *Journal of Global Entrepreneurship Research*, 9(1). <https://doi.org/10.1186/s40497-019-0166-2>
- Sethi, V. (2018). Determining Factors of Attitude towards Green Purchase Behavior of FMCG Products. *IITM Journal of Management and IT*, 9(2), 10–25.

- Sivasankaran, S. (2017). Digital Marketing and Its Impact on Buying Behaviour of Youth. *International Journal of Research in Management & Business Studies*, 4(3), 35–39.
- Woiceshyn, J., & Daellenbach, U. (2018). Evaluating inductive vs deductive research in management studies. *Qualitative Research in Organizations and Management: An International Journal*, 13(2), 183–195. <https://doi.org/10.1108/qrom-06-2017-1538>.

A CONCEPTUALIZATION OF KNOWLEDGE MANAGEMENT IN REMOTE WORK IN MITIGATING COVID-19 CRISIS

Wahidah PADELI¹, Faizuniah PANGIL^{2‡}

^{1,2}*Universiti Utara Malaysia*

Abstract. The COVID-19 crisis has transformed nearly every aspect of life, including the way of working. Employees around the world are being forced to work remotely to curb the spread of COVID-19. During the implementation of this unintentional remote work, the usual access to knowledge, content, and information is made more difficult. It is believed that with good knowledge management (KM) practices, this issue would not have a major impact on the organization and its operations. However, KM had previously been considered a “nice-to-have” that could easily be cut when necessary. Additionally, the literature connecting KM and remote work during the COVID-19 crisis is still scarce and limited. Different results are expected as remote work becomes more challenging during the crisis. Therefore, this paper aims to discuss KM practices and their importance in remote work in the era of the COVID-19 crisis. This present study is expected to make a significant theoretical and practical contribution to both scholars and practitioners. The results of this study will expand the existing knowledge about the connection between the domain of KM and remote work. Furthermore, from a practitioner's perspective, the results of this study will be useful for organizations to reconsider their knowledge management (KM) practices with a view to adopting remote work, especially during a crisis. In summary, this research serves as a pilot stage for broader KM research focused on remote work, as remote work is likely to be a work trend of the future.

Keywords: Remote work, knowledge management (KM), the importance of knowledge management, Covid-19.

[‡] Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Tel.: +604-9287524. Email address: faizun@uum.edu.my

Introduction

The global COVID-19 pandemic has caused a sudden change in the way many organizations work. Hundreds of millions of people around the world are forced to work remotely to curb the spread of COVID-19. Remote work (also known as telecommuting or work-from-home) (Tanpipat et al., 2021; Wang et al., 2021), is a working model that allows employees to work from anywhere without having to commute to the office. Remote work arrangements were commenced to reduce congestion in the workplace, and maintain physical distance as well as reduce physical contact between individuals as COVID-19 is more easily spread when individuals interact face-to-face at close range, are in a crowded enclosed space without good ventilation, as well as engage in activities that can add to the exhalation of fluid droplets from an infected person (MOH, 2020).

Remote work is nothing new and has not just come up because of COVID-19. In some European countries such as Finland, the Netherlands, Luxembourg, and Austria, remote work has already taken place in the pre-pandemic era (Eurostat, 2021). The history of remote work began as early as 1970 when the clean air political and social movement inadvertently laid the essential foundations for the shift from traditional office work to remote work (*Remote Work On-Demand*, n.d.). During the clean air movement, the Clean Air Act (CAA) was passed, which defined the responsibility of the Environmental Protection Agency (EPA) to protect and improve national air quality and the stratospheric ozone layer. It noted that car emissions were a major contributor to poor air quality and lead to emissions standards for moving vehicles (EPA, 2022). Consequently, employees were required to work remotely as they believed zero commute time would be beneficial for air quality. In 1979, International Business Machines Corporation (IBM) allowed five of its employees to work remotely as an experiment; by 1983, around 2,000 IBM employees were working remotely (Useem, 2017). As of 2018, up to 170 companies in the United States (U.S) were operating entirely remotely (Caminiti, 2018).

Remote work has been at a tipping point during the COVID-19 pandemic. It is growing in popularity and will define the 2020s (Lund, et al., 2021). In fact, Gartner had reported that with or without COVID-19, demand for remote work will increase by 30% by 2030 as Generation Z fully entering the workforce (Wiles, 2020). The growing trend of remote work model is due to its ability in offering a vast number of benefits for employers and employees. The survey by Malaysian Employers Federation (MEF), which polled 203 respondent companies, found that some of the biggest benefits the model gave employers include saving up electricity and utility costs (78.5%) and accelerating their adoption of technology at work (68.5%). For employees, 89.4% of them said they saved up on commuting expenses and 88.6% of them said they experienced less commuting stress (SunStar, 2022).

On the other hand, implementing remote work also comes with potential risks and challenges. According to 2022 State of Remote Work report, which data collected from over 2,000 remote workers around the world, 25% workers struggle to unplug from work, 20% said they were working more, 24% struggle with the feeling of loneliness, 21% struggle with motivation, 17% struggle with collaboration and communication, and 21% struggle working across time zone (Buffer, 2022).

The knowledge management (KM) perfectly fits the needs of an organization with employees working remotely from different physical locations. Additionally, the increasing amount of data being collected by remote work organizations is driving the demand for knowledge management solutions (GlobeNewswire, 2021). However, KM was previously viewed by many executives as a “nice-to-have” that could easily be cut if necessary (Hilger & Wahl, 2022). Therefore, this study aims to discuss on knowledge management, and its importance in remote work as many organizations are now opting for remote work and KM is gaining increasing importance.

Literature Review

Knowledge management practices

Over the past two decades, knowledge has become one of the most important and valuable assets of organizations. Knowledge must be collected within the organization in one place and communicated between authorized people independent of time and space (Eklund & Löfgren, 2021). Therefore, knowledge must be properly managed to make it available to employees for reuse, awareness, and learning across the organization (Girard & Girard, 2015; Karamat et al., 2018). Subsequently, the emergence of knowledge-based economies also placed significant importance on the management of knowledge (Kaun et al., 2021).

Knowledge management (KM) is defined as the systematic management of an organization's knowledge assets (Li et al., 2020; Jemal, 2021) to create value (Behme & Becker, 2021; Calad et al., 2017; Jemal, 2021) and enables organizations to achieve advanced performance (Rezaei et al., 2021) which consists of the practices, processes, strategies, and systems that support and enhance the creation, storage, sharing and application of knowledge (Jemal, 2021; Karamat et al., 2018; Rezaei et al., 2021). Knowledge management is also viewed as a practice to ensure that insight, outcomes, and learning are captured within an organization and made available to employees for them to find, use, update, adapt and integrate into business processes (Girard & Girard, 2015).

The adoption and application of knowledge management (KM) occur across different sectors and disciplines and therefore there is no standardized definition of KM practices (Kaira & Phiri, 2022). Knowledge management practices may include knowledge creation practices, continuous learning practices, knowledge feedback system and management of employees' individual competencies (Henao-García et al., 2020; Rezaei et al., 2021). While Li et al. (2020) defined knowledge management practices as knowledge sharing, innovative capacity, and absorptive capacity. Despite its definition, knowledge management practices are becoming increasingly important to business success and maintaining competitive advantage (Li et al., 2020; Rezaei et al., 2021; Sokoh & Okolie, 2021).

The importance of knowledge management practices in remote work

Knowledge Management (KM) has always played a crucial role in the workplace, but never more so than in today's brave new world. With recent external circumstances, advances in technology and the nature of the business itself, the definition of KM has changed and so has its importance for an organization. Knowledge today is no longer about knowledge capture and the perfect file structure, but it is important in creating additional value that will become the backbone of remote work (Behme & Becker, 2021). The importance of KM in remote work as much discussed are:

Connection

In remote work, employees do not have the opportunity to meet and connect during breaks, as is common in traditional office-centric work. They cannot interact and form meaningful relationships in a personal setting (Leapmax, 2021). It was likely the sharp decrease in hours spent engaging socially with work friends and colleagues for remote workers (Wigert & Barry, 2021). This creates a challenge for them to learn from their colleagues and connect with knowledge. Using KM, organizations can tag their knowledge objects ranging from data to people, terms, and other key information that enable employees to find the right people and understand processes better (Stringer, 2020). Therefore, KM is able to connect remote employees with knowledge and also get the right answer from the right people.

Communication

When transitioning to a remote working model, additional elements need to be incorporated to replace physical contact that is no longer available. The double whammy of responding to the health crisis and managing a remote workforce has underscored the need to communicate even more frequently (Ejembi, 2020). Informal chat in the office must be replaced with remote communication. By using the knowledge management platform, employees can share documents, and check in on colleagues and their wellbeing (Ejembi, 2020). Therefore, KM is an important communication tool for employees to express themselves, share information, knowledge, and experiences, and help each other across digital mediums and sometimes different time zones when working remotely.

Collaboration

Informal interactions provide a springboard for collegial relationships in which people collaborate on areas of common interest (Alexander, Smet, & Mysore, 2020). However, this type of interaction has been hampered when working remotely, leading to the fact that collaboration is the biggest functional challenge in remote work (Seismic, 2020). The remote workplace needs to ensure critical information is available for the distributed workforce to thrive and be successful (Njuguna, 2020). Knowledge management (KM) is able manage knowledge flow within the organization (Leapmax, 2021) and improve the effectiveness of collaboration in remote work situations (Wahl, 2020). Through KM, people can contribute their ideas in a shared document during virtual meetings to ensure collaboration (Robison, 2021) and help remote workers to find better solutions (Leapmax, 2021).

Creativity

In turbulent times of the COVID-19 crisis, organizations face unpredictable challenges, creativity is of crucial importance. Creativity is the ability to make or bring into existence something new, whether a new solution to a problem, a new method or device, or a new artistic object or form (Kerr, 2022). Creativity requires thinking outside the box, and applying knowledge in new and exciting ways (Berezhansky, 2020). According to Amabile's componential theory of creativity (1983), domain knowledge, creativity-relevant skills, and intrinsic motivation are three major components of creativity. Thus, proper knowledge management is important for creativity. Teams with proper knowledge management skills can *uplift their* efforts, and creativity to achieve a similar objective collectively (Khan, 2022). Furthermore, knowledge transfer, internal and external digital knowledge sharing are identified

as key aspects for creative-innovative work in remote work (Karachatzis & Parameshwarappa, 2021; Tønnessen et al., 2021).

Productivity

Knowledge Management (KM) improves the productivity of organizations by leveraging technology, process, and organizational culture (Ejembi, 2020) and ensuring the right employees find the right information they need to do their jobs when working remotely, no matter where and when they are working (Jacobson, 2021; Wahl, 2020). Good KM improves the flow of useful information to support decision-making and boost productivity, while poor KM practices duplicate effort and waste time searching for existing resources, which then jeopardizes productivity. Additionally, KM enables new hires to be hired quickly and efficiently, ensuring rapid productivity with onboarding training and timely access to knowledge. This ensures companies set their new hires up for success from the day they join the team (Njuguna, 2020).

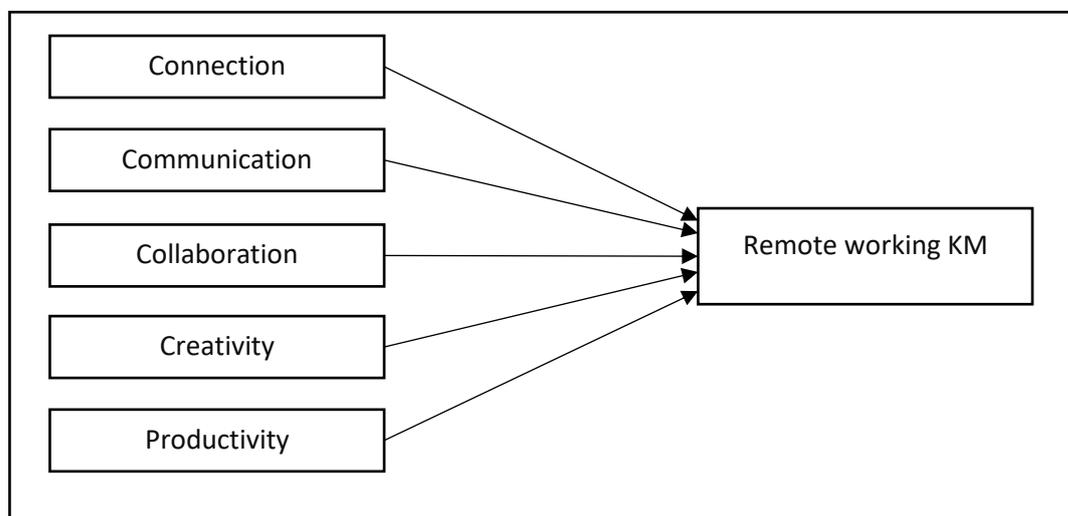


Figure 1: A proposed conceptual model for the importance of Knowledge Management (KM) in remote work

Source: Researcher's Illustration (Padeli, 2022)

Figure 1 shows a proposed conceptual model for the importance of knowledge management in remote work, as much debated by academics. Previous studies have proven that KM can improve connection (Stringer, 2020), communication (Ejembi, 2020), collaboration (Robison, 2021; Wahl, 2020), creativity (Karachatzis & Parameshwarappa, 2021; Tønnessen et al., 2021) and productivity (Jacobson, 2021; Njuguna, 2020; Wahl, 2020) when work remotely. The results show the difference in the importance of KM in traditional office-centric and remote work when KM largely agreed with increased innovation in the traditional way of working (Hussein, 2018); Jemal, 2021; Mardani et al., 2018; Opele, J. K., Adepoju, K. O., & Adegbite, 2020; Othman et al., 2018).

Although knowledge management (KM) has proven to be an indispensable tool that can be used proactively to improve the efficiency of remote workers, empirical studies on KM-remote work are still limited. Thus, this proposed conceptual model contributes to the body of

knowledge by linking the domain of KM and remote work, especially during the COVID-19 crisis. In addition, the results of the present study will practically help the organization to consider the adoption of remote work, since remote work can create a work-life balance community (Y. Wang et al., 2021).

Conclusion

The world is in a century where knowledge is the most important asset for the success of people and organizations. Therefore, every opportunity is good to accelerate knowledge management (KM). The COVID-19 crisis has created a need for knowledge management for almost every industry to survive and thrive, especially when employees are involuntarily forced to work remotely. In remote work, KM are important to ensure connectivity and guard against isolation and disconnection, especially at the person-to-person level. KM supports communication to ensure that employees stay engaged across different locations and time zones. KM also enables the exchange of ideas for collaboration and better decision making. It also encourages creativity of the employees and improve productivity. As now remote work increasingly becomes the employees' choice, it is a good time for organizations to intentionally revisit their knowledge management. Knowledge management probably does not need to be redefined; organizations just need to start incorporating it into the potential new ways of working post-pandemic.

This study is limited to secondary data on KM in remote work during the COVID-19 crisis over the period of 2019 to 2022. It is better to obtain primary data from remote work organizations, as primary data is often reliable, authentic and based on objective that purposely addressing a particular research problem (Immadi, 2020). This present study has found that KM is important for connection, communication, collaboration, creativity and productivity in remote work. Therefore, future studies are recommended to examine the factors that contribute to the success of KM in remote work. This is because many organizations around the world have already invested in KM, but despite the successes, many have failed (Rezaei et al., 2021). Therefore, conducting the study on Critical Success Factors (CSFs) of KM practices in remote work can expectantly assist companies in their KM implementation.

Acknowledgments

I would like to express my gratitude and appreciation to everyone who gave me the opportunity to complete this paper. Special thanks go to my supervisor Assoc. Prof. Dr. Faizuniah Binti Pangil, whose help, stimulating suggestions, and encouragement have helped me in writing this paper. I am also deeply grateful to my family for their support and encouragement.

References

- Ahmad, R. (2020, July 15). *Konsep bekerja dari rumah: realiti dan cabaran*. Retrieved from Tinta Minda: <https://www.bernama.com/bm/tintaminda/news.php?id=1860228>
- Alexander, A., Smet, A. D., & Mysore, M. (2020, July 7). *Pandemic-style working from home may not translate easily to a "next normal" mix of on-site and remote working*. Retrieved

- from McKinsey&Company: <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/reimagining-the-postpandemic-workforce>
- Batra, R. (2021, August 11). *Knowledge Management and the Impact of COVID-19*. Retrieved from phpkb: <https://www.phpkb.com/kb/article/knowledge-management-and-the-impact-of-covid-19-244.html>
- Behme, F., & Becker, S. (2021, January 29). *Deloitte*. Retrieved from The new knowledge management: <https://www2.deloitte.com/xe/en/insights/focus/technology-and-the-future-of-work/organizational-knowledge-management.html>
- Berezhansky, P. (2020, June 23). *How Working Remotely Is Making Us More Creative*. Retrieved from <https://www.thehrdirector.com/features/the-workplace/how-working-remotely-is-making-us-more-creative/>
- Buffer. (2022). *2022 State Of Remote Work*. Retrieved from Buffer: <https://buffer.com/state-of-remote-work/2022>
- Caminiti, S. (2018, April 03). *The dream job that's all the rage across America*. Retrieved from CNBC: <https://www.cnbc.com/2018/04/03/virtual-companies-answer-demand-for-better-quality-of-life.html>
- Cherutich, C. J., & Nyiro, C. (2019). The role of enabler factors on success on knowledge management in state corporations: A case of Kenya Wildlife Services. *Human Resource and Leadership Journal ISSN 2520-4661 (Online) Vol.4, Issue No.1*, 35-56.
- Ejembi, E. (2020, July 29). *How Knowledge Management Helps Make Remote Work, Work*. Retrieved from KMI: <https://www.kminstitute.org/blog/how-knowledge-management-helps-make-remote-work-work>
- Eklund, A. K., & Löfgren, V. (2021). *Organizational Structure , Communication , and Performance . Relationship to integrated management system. June.*
- EPA. (2022, May 16). *History of Reducing Air Pollution from Transportation in the United States*. Retrieved from EPA: <https://www.epa.gov/transportation-air-pollution-and-climate-change/history-reducing-air-pollution-transportation#the-problem>
- Girard, J., & Girard, J. (2015). Defining knowledge management: Toward an applied compendium. In *Online Journal of Applied Knowledge Management*. iiakm.org. https://www.iiakm.org/ojakm/articles/2015/volume3_1/OJAKM_Volume3_1pp1-20.pdf
- GlobeNewswire. (2021, June 29). *Global Knowledge Management Market Report 2021: Collaboration Emerges as a Critical Requirement for Enabling Knowledge Management*. Retrieved from yahoo news: https://ca.news.yahoo.com/global-knowledge-management-market-report-123800413.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xiLmNvbS8&guce_referrer_sig=AQAAAM4_mU3JjUQCznljwrNZCcjVVnO4hyfh1XKGTnLQtwYjYQcjQWzeIQMmg3joz-syUVPPJ0hNPGCstmLo_hgnmVzPpHI
- Henao-Calad, M., Rivera Montoya, P., & Uribe Ochoa, B. (2017). Knowledge Management Processes and Intellectual Property Management Processes: an Integrated Conceptual Framework. *AD-Minister*, 31, 137–160. <https://doi.org/10.17230/ad-minister.31.8>
- Henao-García, E. A., Lozada, N., & Arias-Pérez, J. (2020). Direct effects of knowledge management practices on organizational performance. *Business Information Review*, 37(1), 30–37. <https://doi.org/10.1177/0266382120909073>
- Hilger, J., & Wahl, Z. (2022, May 17). *Knowledge management and the changing state of work*. Retrieved from Springer nature: <https://www.springernature.com/gp/librarians/the-link/blog/blogposts-corporate-health/knowledge-management-and-the-changing-state-of-work/20404864>
- Hussein, A. S. (2018). The Importance of Knowledge Management Orientation Behavior and Innovation on Business Performance: a Lesson From Indonesia Creative Economy Sector.

- Asia Pacific Management and Business Application*, 007(02), 95–108.
<https://doi.org/10.21776/ub.apmba.2018.007.02.3>
- Immadi, G. (2020, June 04). *Importance of Primary and Secondary Data*. Retrieved from Medium: <https://gayathri-i.medium.com/importance-of-primary-and-secondary-data-f8816ffe839f>
- Jacobson, M. (2021, November 16). *How Knowledge Management Improves Productivity and the Employee Experience*. Retrieved from KM Institute: <https://www.kminstitute.org/blog/how-knowledge-management-improves-productivity-and-employee-experience>
- Jemal, S. (2021). Role of Knowledge Management on Organizational Performance, Case of Jimma University in Ethiopia. *Journal of International Business and Management*, 4(5), 1–18. <https://doi.org/10.37227/jibm-2021-05-722>
- Kaira, W., & Phiri, J. (2022). A Model for Improved Knowledge Management Performance in Higher Education Institutions in Developing Countries: A Case of Zambia. *Open Journal of Business and Management*, 10(01), 543–563. <https://doi.org/10.4236/ojbm.2022.101030>
- Karachatzis, X., & Parameshwarappa, L. (2021). *Innovation & Remote Work: A window of opportunity or an inevitable compromise? An evaluation of innovation aspects in remote work conditions*. 0–73.
- Karamat, J., Shurong, T., Ahmad, N., Waheed, A., & Khan, S. (2018). Barriers to knowledge management in the health sector of Pakistan. *Sustainability (Switzerland)*, 10(11). <https://doi.org/10.3390/su10114155>
- Kaun, C. G., jhanjhi, N. Z., Wei, G. W., & Sukumaran, S. (2021). Quality Model for Knowledge Intensive. *Journal of Engineering Science and Technology*, 16(3), 2696–2718.
- Kerr, B. (2022, October 14). *Creativity*. Retrieved from Britannica: <https://www.britannica.com/topic/creativity>
- Khan, A. Z. (2022). *How does knowledge management boost creative collaboration?* Retrieved from GoVisually: <https://govisually.com/blog/knowledge-management/>
- Leapmax. (2021, December 24). *How does knowledge management improve remote workforce efficiency?* Retrieved from Leapmax: <https://leapmax.ai/blog/improve-remote-workforce-efficiency/>
- Li, C., Ashraf, S. F., Shahzad, F., Bashir, I., Murad, M., Syed, N., & Riaz, M. (2020). Influence of Knowledge Management Practices on Entrepreneurial and Organizational Performance: A Mediated-Moderation Model. *Frontiers in Psychology*, 11(December), 1–15. <https://doi.org/10.3389/fpsyg.2020.577106>
- Lund, S., Madgavkar, A., Manyika, J., Smit, S., Ellingrud, K., & Robinson, O. (2021, February 18). *The future of work after COVID-19*. Retrieved from McKinsey Global Institute: <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19>
- Mayernick, S. (2020, March 12). *Why Knowledge Management is Critical for Remote Teams*. Retrieved from GetGuru: <https://blog.getguru.com/why-knowledge-management-is-critical-for-remote-teams>
- MOH. (2020, December 07). *Soalan Lazim (FAQ) Rasmi Berkaitan COVID-19 oleh Kementerian Kesihatan Malaysia*. Retrieved from Kementerian Kesihatan Malaysia: <https://covid-19.moh.gov.my/faqsop/faq-covid-19-kkm>
- Njuguna, L. (2020, November 22). *The role of Knowledge Management in remote work*. Retrieved from LinkedIn: <https://www.linkedin.com/pulse/role-knowledge-management-remote-work-lucy-njuguna-master-of-science?trk=pulse-article>

- O'Connell, B. (2020, September 25). *Knowledge Management in the Age of Remote Work*. Retrieved from SHRM: <https://www.shrm.org/resourcesandtools/hr-topics/people-managers/pages/managing-knowledge-in-the-age-of-remote-work.aspx>
- Opele, J. K., Adepoju, K. O., & Adegbite, W. M. (2020). Barriers to Knowledge Management Practices, Interprofessional Collaboration and Information Technology Application in Federal Tertiary Hospitals in Nigeria. *Canadian Social Science*, 16(12), 35-41. <https://doi.org/10.3968/11997>
- Othman, A., Ismail, S., Yahya, K., & Ahmad, M. H. (2018). Critical success factors in implementing knowledge management in consultant firms for Malaysian construction industry. *Management Science Letters*, 8(5), 305–316. <https://doi.org/10.5267/j.msl.2018.4.017>
- Rakov, M., & Ridder, J. D. (2022). *Knowledge Sharing in Organizations: A Present and Futures Study*. San Francisco: Creative Common.
- Remote Work On-Demand*. (n.d.).
- Rezaei, F., Khalilzadeh, M., & Soleimani, P. (2021). Factors Affecting Knowledge Management and Its Effect on Organizational Performance: Mediating the Role of Human Capital. *Advances in Human-Computer Interaction*, 2021. <https://doi.org/10.1155/2021/8857572>
- Robinson, B. (2022, May 05). *Remote Work Increases Employee Happiness By 20%, New Study Finds*. Retrieved from Forbes: <https://www.forbes.com/sites/bryanrobinson/2022/05/05/remote-work-increases-employee-happiness-by-20-new-study-finds/?sh=6553cac53183>
- Robison, J. (2021, June 28). *Communicate Better With Employees, Regardless of Where They Work*. Retrieved from Gallup: <https://www.gallup.com/workplace/351644/communicate-better-employees-regardless-work.aspx>
- Seismic. (2020, June 11). *Why knowledge management is critical to teams that work remotely and tips to build the right foundation for success*. Retrieved from Seismic: <https://seismic.com/blog/why-knowledge-management-is-critical-to-teams-that-work-remotely-and-tips-to-build-the-right-foundation-for-success/>
- Sokoh, G. C., & Okolie, U. C. (2021). Knowledge Management and Its Importance in Modern Organizations. *Journal of Public Administration, Finance and Law*, 20, 283–300. <https://doi.org/10.47743/jopaf1-2021-20-19>
- Stringer, G. (2020, August 21). *7 reasons why knowledge sharing is important*. Retrieved from hownow: <https://gethownow.com/blog/7-reasons-why-knowledge-sharing-is-important/#Connect%20remote%20employees%20to%20knowledgeSunStar20220102a.pdf>. (n.d.).
- Tanpipat, W., Lim, H. W., & Deng, X. (2021). Implementing remote working policy in corporate offices in Thailand: Strategic facility management perspective. *Sustainability (Switzerland)*, 13(3), 1–23. <https://doi.org/10.3390/su13031284>
- Tønnessen, Ø., Dhir, A., & Flåten, B. T. (2021). Digital knowledge sharing and creative performance: Work from home during the COVID-19 pandemic. *Technological Forecasting and Social Change*, 170(December 2020). <https://doi.org/10.1016/j.techfore.2021.120866>
- Useem, J. (2017, November). *When Working From Home Doesn't Work*. Retrieved from The Atlantic: <https://www.theatlantic.com/magazine/archive/2017/11/when-working-from-home-doesnt-work/540660/>
- Wang, B., Liu, Y., Qian, J., & Parker, S. K. (2021). Achieving Effective Remote Working During the COVID-19 Pandemic: A Work Design Perspective. *Applied Psychology*, 70(1), 16–59. <https://doi.org/10.1111/apps.12290>

- Wang, Y., Liu, Y., Cui, W., Tang, J., Zhang, H., Walston, D., & Zhang, D. (2021). Returning to the Office during the COVID-19 Pandemic Recovery: Early Indicators from China. *Conference on Human Factors in Computing Systems - Proceedings*. <https://doi.org/10.1145/3411763.3451685>
- Wigert, B., & Barry, K. (2021, May 17). *The Future of Hybrid Work: 5 Key Questions Answered With Data*. Retrieved from Gallup: <https://www.gallup.com/workplace/351029/top-chros-believe-flexibility-within-framework-future-work.aspx>
- Wiles, J. (2020, July 23). *With Coronavirus in Mind, Is Your Organization Ready for Remote Work?* Retrieved from Gartner: <https://www.gartner.com/smarterwithgartner/with-coronavirus-in-mind-are-you-ready-for-remote-work>.

**THE IMPACT OF DIGITAL LITERACY ON STUDENTS' INTENTION TO ADOPT
E-LEARNING AND THE ROLE OF GENDER AS MODERATOR:
A CONCEPTUAL STUDY**

Safwan Marwin Abdul Murad ¹, Azanin Ahmad ², Norzalita Abd Aziz ³
^{1,2} *School of Business Management, Universiti Utara Malaysia, Malaysia*
³ *Graduate School of Business, Universiti Kebangsaan Malaysia, Malaysia*

Abstract. Various industries have been disrupted by the utilisation of digital technologies and creating unprecedented challenges together with creating new opportunities. One of the most affected industries by this rapid development of digital technologies is education. The spread of the Corona Virus (Covid-19) has even speed-up the effect and completely reshaped the education sector. The adoption of online learning or also known as e-learning had a positive impact on students. Therefore, empowering students to connect the digital gap as well as equip them with digital skills is of utmost importance to ensure that students can benefit from the boundless knowledge that they can gain from the utilisation of digital technologies in their learning processes. Therefore, based on a combination of literature, this study proposes a conceptual model to investigate the relationship between digital literacy and students' intention to adopt e-learning. The conceptual model proposes that the student's level of digital literacies influences his or her intention to e-learning. This study also proposes the moderating role of gender in affecting the relationship between digital literacy and the intention to adopt e-learning. This paper aims to contribute to the existing body of knowledge by highlighting the importance of digital literacy as the key factor that affects students' online learning behaviours and its implications for future study. Although this is just a conceptual study, the contribution stated is relevant since conceptual studies are not without empirical intuitions but rather build on theories and concepts that are established and tested through empirical research.

Keywords: Digital literacy, e-learning, online learning, gender, education

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: marwin@uum.edu.my

Introduction

The application of digital technologies has become a crucial part in day to day of human life such as working, studying, playing and many other activities. Various industries have been affected by the utilisation of digital technologies which creating unprecedented challenges together with new opportunities. One of the sectors that are heavily affected by the use of digital technologies is the education sector (Adeyinka-Ojo et al., 2020; Tang & Chaw, 2016). The fusion of digital technologies particularly information communication technology (ICT) has completely changed educational sectors over the last few years. Moreover, the spread of the Corona Virus (Covid-19) pandemic has disturbed many parts of human life, such as the restriction from mass gatherings and social distancing policy implemented by the government to curb the transmission of the virus, this situation has even speed-up the effect and completely reshaped the educational sector (Jang et al., 2021).

Due to the effect of Covid-19, students' learning activities have been changed from face-to-face mode of study to online or virtual learning by utilising various digital technologies, particularly the Internet. The adoption of online learning or also known as e-learning had a positive impact on students. This new mode of learning offers chances for students to improve their capabilities. Online learning or e-learning activities have the potential to save students' time and facilitate them to complete various assignments and projects by using internet-related technologies such as various learning apps and web tools (Tang & Chaw, 2016). The online learning tools permit students to acquire information, connect with others and make them up to date with the current news making different insights of knowledge. In other words, through online learning tools, students could learn in entertaining ways.

Despite the fact that online learning offers various advantages and benefits, this way of learning could also harm students. The most downside of e-learning is the social separation or quarantine along with the dearth of interaction between students and lecturers which can cause lacking communication skills (Hamutoğlu et al., 2019). The relationship between lecturers and students is vital in determining learning enthusiasm and educational achievement (Hamutoğlu et al., 2019). Another negative aspect associated with e-learning is the high possibility for students to conduct academic fraud such as cheating during examinations, chatting, playing games during lecturing sessions or visiting unsafe and inappropriate websites. Therefore, in order for students to deal with the downside of online learning and at the same time to allow them to utilise the full potential of this learning approach, they need to have the ability required to adopt the technology successfully which is known as digital literacy ability.

Digital literacy is the most imperative skill in using digital technology, a communication instrument to cope, manage, coordinate, access, and deliver information to others (Purnama et al., 2021). Therefore, by embracing the appropriate digital literacy, students will be capable to deal with online associated risks and access the full potential of online learning technology. Consequently, digital literacy would have a great effect on the output of learning outcomes on students' academic accomplishments (Yustika & Iswati, 2020). Hence, empowering students to connect the digital gap as well as equip them with digital skills is of utmost importance to ensure that students can benefit from the boundless knowledge that they can gain from the utilisation of digital technologies in their learning processes.

On top of digital literacy, gender also takes a significant role that would moderate the relationship between digital literacy and behavioural intention. Gender-related differences in the internet-related technologies context are still ubiquitous (Abdulkareem & Ramli, 2020; Filtness, 2019; Murad et al., 2021). Literature states that males and females uphold different attitudes toward internet-related technology and hence place these technologies differently in their everyday life (Abdulkareem & Ramli, 2020; Murad & Aziz, 2021; H.-Y. Wang & Wang,

2010). Therefore, by emphasizing gender differences, it may be possible to obtain a more subtle insight into the factors influencing students' intention to adopt e-learning in males compared to females.

Literature review and propositions development

Digital literacy and intention to adopt e-learning

Basically, the term literacy has no universally accepted definition nor fixed requirements for how to be literate. Ambiguity pertaining to the concept of digital literacy is still existed because of the broad usage of the term within various contexts. Even though there is no fixed definition of it, the notion of literacy is usually linked with the capability to read and write (Murad & Aziz, 2021). In other words, literacy is about ability or capability. The same goes for digital literacy, in the context of digital technology, digital literacy is defined as the ability or the skill to use information and communication technologies to search, understand, assess, create, and communicate digital information ((American Library Association (ALA), 2013). In a simpler concept, Ng (2012) in his empirical study, indicated that digital literacy includes a range of skills associated with the use of digital technologies. A recent definition by List (2019) has defined digital literacy as the ability to obtain insight from various resources via the Internet and computer. Furthermore, several scholars claimed that digital literacy is strongly associated with cognitive abilities (Mishra et al., 2017; Purnama et al., 2021).

According to scholars as well as policymakers, digital literacy is deemed an important skill that needs to be embedded in the educational curriculum (cite). The notion of digital literacy is vital, especially during and after the Covid-19 endemic. Online learning methods make students easy to access learning materials and hence offer a convenient way of learning. In the context of digital technology and education, digital or online learning facilitates students beyond traditional learning activities which permits them to engage in discussion via social media and learning through games and music. Students need to have an appropriate level of digital literacy so that they will have self-control ability which is crucial due to the nature of deviations in the digital world (Purnama et al., 2021).

In addition, having appropriate digital literacy skills can also prevent students from being addicted towards using digital gadgets (Helsper & Smahel, 2020). This could be explained from the perspective of human psychology. According to a psychological study, digital literacy can determine an individual's behaviour including self-control which can make an individual know his or her responsibilities in terms of when, where and how to independently access online learning tools and activities (Deursen et al., 2016; Wang et al., 2013). Mohammadyari and Singh (2015) in their empirical study found that the digital literacy level of a student can affect his or her performance in accelerating the usage of e-learning and at the same time can control the negative impact of online activities. Hence it is justified to predict that a student's digital literacy would positively affect his or her intention to use e-learning.

The connection between digital literacy and behavioural intention in various technological settings has been empirically studied. In the educational setting, Lan et al. (2022) study on the impact of digital literacy on the intention to use digital technology for learning in higher education context has found that the higher-level the digital literacy of the student, the more likely he or she will use technology in the higher education study. Another study conducted by Nikou, Brännback, and Widén (2018) on examining the effect of digital literacy on attitude toward using digital technologies has found that digital literacy has a significant positive relationship to the attitude toward using digital technologies which sequentially the

attitude was found to have a significant positive relationship to the intention to use digital technologies. The findings of the study have supported the positive effect of digital literacy on behavioural intention to use digital technologies.

Likewise, the findings from Bayrakdaroğlu and Bayrakdaroğlu (2017) study on the effect of digital literacy on behavioural intention shows that digital literacy has a significant positive effect on intention. The study was made by comparing two groups based on low and high digital literacy levels. The outcomes of the study showed that digital knowledge and skills (digital literacy) were very crucial in influencing an individual's intention related to the usage of technology. Therefore, having access is not sufficient to guarantee that digital technology will facilitate people attain their goals and objective since specific skills are needed for information technology to be effectively utilized. Thus, this study proposes that digital literacy will have a positive effect on student's intention to adopt e-learning. Hence, based on the previous findings, as well as the aim to gain comprehension of the still under-explored relationships, the following relationship is proposed:

Proposition 1: Digital literacy has a positive effect on the student's intention to adopt e-learning.

Gender as moderating variable

Generally, a number of prior research has explored the relationship between digital literacy and behavioural intention. However, findings pertaining to the effect of digital literacy on behavioural intention are consistent in various settings. For instance, in educational settings, Lan et al. (2022) study found a significant positive relationship between digital literacy and behavioural intention, but the other study conducted by Jang et al. (2021) found an insignificant relationship between digital literacy and behavioural intention to use digital technologies for learning. Another study conducted by Nikou et al (2018) found a significant positive relationship between digital literacy and behavioural intention, however, in a more recent study, Nikou and Aavakare (2021) found an insignificant relationship between digital literacy and behavioural intention to use digital technologies.

Furthermore, it can be noted that evidence on the effect of moderators in the digital literacy and behavioural intention relationship is limited. Hence, this study proposes gender as moderating variable that could moderate the relationship between digital literacy and behavioural intention. Previous studies indicate that there are significant gender differences in attitudes towards digital-related technologies with males scoring higher than females (Assaker, 2020; Sobieraj & Krämer, 2020). It is therefore expected that a student's level of digital literacy will influence his or her behavioural intention to adopt e-learning.

Assaker (2020) and Venkatesh, Thong, and Xu (2012) in their study in the technology acceptance setting found a significant moderation effect of gender between the factors affecting technology acceptance and behavioural intention. The findings indicate that the effect is stronger among male compared to female users. In addition, a study conducted by Filtness (2019) on gender and technology noted a substantial positive effect on the male gender which reveals that male users have greater ICT self-efficacy and are more technology-friendly than female users. Thus, based on the argument above, it is expected that:

Proposition 2: The positive effects of digital literacy on students' intention to adopt e-learning will be stronger for male students than female students.

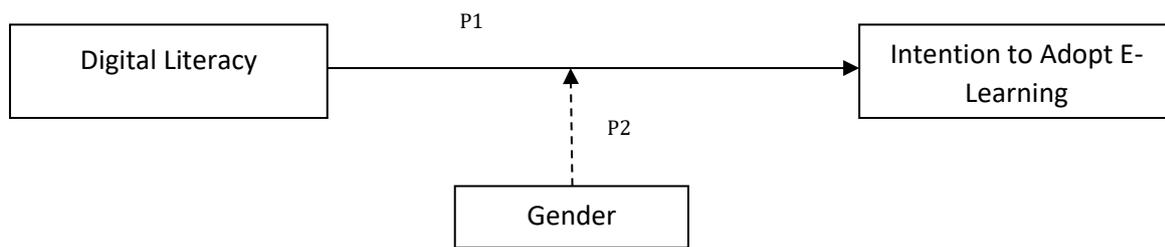


Figure 1: Proposed Conceptual Framework

Methodology

Conceptual studies commonly are not established from data in the typical sense but rather obtained from a combination or adaptation of prior empirical research, theories, or ideas (Jaakkola, 2020). Jaakkola (2020) indicate that statistical analysis is not the primary objective of conceptual studies but emphasises more on understanding the idea, concept or theory that explains the phenomenon, the concept or the subject being investigated. The evidence in this study is depicted from prior studies such as literature reviews and findings from previous research, not the primary data. Therefore, the use of this type of methodology in constructing this conceptual study is appropriate because it provides new and additional understandings of the relationship between digital literacy and behavioural intention.

Conclusion

The proposed conceptual model aims to expand the current knowledge on the role of digital literacy in affecting students' intention to adopt e-learning. Furthermore, the proposed model includes gender as a moderator variable that is expected to have a significant role in moderating the relationship between the factor influencing students' e-learning behaviours with behavioural intention in an educational technological setting. Hence, all these factors may contribute to the student's positive behavioural response which is the intention to adopt e-learning. The proposed conceptual model also offers some valuable insights both into theory as well as practice. The proposed conceptual model may be considered crucial for educational scholars and practitioners, especially in the higher learning educational context. For scholars, this study may provide a preliminary idea or may offer a new perception that can be utilized to further understand this underexplored area of study. Moreover, this study may provide an initial idea or can be used as guidance and direction for educational players on the possible factors that could help them to develop and implement effective online learning strategies. A huge investment has been made by educational-related organisations including governments as well as private learning institutions in developing effective and efficient online learning platforms. Hence, these educational players must gain promising results from the platforms they are hugely invested.

References

- Abdulkareem, A. K., & Ramli, R. M. (2020). Digital Literacy and the Performance of E-Government: Evaluating the Moderating Role of Gender As a Demographic Factor. *International Journal of Advance Science and Technology*, 29(10), 1110–1121. <https://doi.org/10.31580/apss.v6i2.1306>
- Adeyinka-Ojo, S., Lee, S., Abdullah, S. K., & Teo, J. (2020). Hospitality and tourism education in an emerging digital economy. *Worldwide Hospitality and Tourism Themes*, 12(2), 113–125. <https://doi.org/10.1108/WHATT-12-2019-0075>
- American Library Association (ALA). (2013). *Digital Literacy Task Force. Digital Literacy, Libraries, and Public Policy*.
- Assaker, G. (2020). Age and gender differences in online travel reviews and user-generated-content (UGC) adoption: extending the technology acceptance model (TAM) with credibility theory. *Journal of Hospitality Marketing and Management*, 29(4), 428–449. <https://doi.org/10.1080/19368623.2019.1653807>
- Bayrakdaroğlu, F., & Bayrakdaroğlu, A. (2017). A Comparative Analysis Regarding The Effects of Financial Literacy and Digital Literacy on Internet Entrepreneurship Intention. *Journal of Entrepreneurship and Development*, 12(2), 27–38.
- Deursen, A. J. A. M. van, Helsper, E. J., & Eynon, R. (2016). Development and validation of the Internet Skills Scale (ISS). *Information Communication and Society*, 19(6), 804–823. <https://doi.org/10.1080/1369118X.2015.1078834>
- Filtness, S. (2019). Gender and technology. *Learning in Practice*, 3(1).
- Hamutoğlu, N. B., Savaşçı, M., & Sezen-Gültekin, G. (2019). Digital Literacy Skills and Attitudes towards E-Learning. *Journal of Education and Future*, 93–107. <https://doi.org/10.30786/jef.509293>
- Helsper, E. J., & Smahel, D. (2020). Excessive internet use by young Europeans: psychological vulnerability and digital literacy? *Information Communication and Society*, 23(9), 1255–1273. <https://doi.org/10.1080/1369118X.2018.1563203>
- Jaakkola, E. (2020). Designing conceptual articles: four approaches. *AMS Review*, 10(1–2), 18–26. <https://doi.org/10.1007/s13162-020-00161-0>
- Jang, M., Aavakare, M., Nikou, S., & Kim, S. (2021). The impact of literacy on intention to use digital technology for learning: A comparative study of Korea and Finland. *Telecommunications Policy*, 45(7). <https://doi.org/10.1016/j.telpol.2021.102154>
- Lan, T., Le, H., Hoang, H., Duc, M., Hoang, M., Phuc Nguyen, H., & Bui, X. B. (2022). Impact of Digital Literacy on Intention to Use Technology for Online Distribution of Higher Education in Vietnam: A Study of Covid19 Context. *Journal of Distribution Science*, 20(6), 75.
- List, A. (2019). Defining digital literacy development: An examination of pre-service teachers' beliefs. *Computers and Education*, 138, 146–158. <https://doi.org/10.1016/j.compedu.2019.03.009>
- Mishra, K. E., Wilder, K., & Mishra, A. K. (2017). Digital literacy in the marketing curriculum: Are female college students prepared for digital jobs? *Industry and Higher Education*, 31(3), 204–211. <https://doi.org/10.1177/0950422217697838>
- Mohammadyari, S., & Singh, H. (2015). Understanding the effect of e-learning on individual performance: The role of digital literacy. *Computers and Education*, 82, 11–25. <https://doi.org/10.1016/j.compedu.2014.10.025>
- Murad, S. M. A., & Aziz, N. A. (2021). The Impact of Digital Literacy On Travel Purchase Intention Via Ota Websites: The Role Of Gender As Moderator A Conceptual Study. *Proceedings of the 3rd Conference on Technology & Operations Management*, 54–59.

- Murad, S. M. A., Sivapathy, A., & Nor, A. A. M. (2021). The Impact Of Performance Expectancy On Purchasing Travel Products Via Online Travel Agents Websites : Gender As Moderator. *Journal Voice Of Academia*, 17(1), 116–128.
- Ng, W. (2012). Can we teach digital natives digital literacy ? *Computers & Education*, 59(3), 1065–1078. <https://doi.org/10.1016/j.compedu.2012.04.016>
- Nikou, S., & Aavakare, M. (2021). An assessment of the interplay between literacy and digital Technology in Higher Education. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-021-10451-0>
- Nikou, S., Brännback, M., & Widén, G. (2018). The Impact of Multidimensionality of Literacy on the Use of Digital Technology: Digital Immigrants and Digital Natives. *Communications in Computer and Information Science*, 907, 117–133. https://doi.org/10.1007/978-3-319-97931-1_10
- Purnama, S., Ulfah, M., Machali, I., Wibowo, A., & Narmaditya, B. S. (2021). Does digital literacy influence students' online risk? Evidence from Covid-19. *Heliyon*, 7(6). <https://doi.org/10.1016/j.heliyon.2021.e07406>
- Sobieraj, S., & Krämer, N. C. (2020). Similarities and differences between genders in the usage of computers with different levels of technological complexity. *Computers in Human Behavior*, 104. <https://doi.org/10.1016/j.chb.2019.09.021>
- Tang, C. M., & Chaw, L. Y. (2016). Digital Literacy: A Prerequisite for Effective Learning in a Blended Learning Environment? *The Electronic Journal of E-Learning*, 14, 54–65. www.ejel.org
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance And Use Of Information Technology: Extending The Unified Theory Of Acceptance And Use Of Technology. *MIS Quarterly*, 36(1), 157–178.
- Wang, C. H., Shannon, D. M., & Ross, M. E. (2013). Students' characteristics, self-regulated learning, technology self-efficacy, and course outcomes in online learning. *Distance Education*, 34(3), 302–323. <https://doi.org/10.1080/01587919.2013.835779>
- Wang, H.-Y., & Wang, S.-H. (2010). User acceptance of mobile internet based on the Unified Theory of Acceptance and Use of Technology: Investigating the determinants and gender differences. *Social Behavior and Personality: An International Journal*, 38(3), 415–426. <https://doi.org/10.2224/sbp.2010.38.3.415>
- Yustika, G. P., & Iswati, S. (2020). Digital Literacy in Formal Online Education: A Short Review. *Dinamika Pendidikan*, 15(1), 66–76. <https://doi.org/10.15294/dp.v15i1.23779>

**THE IMPACT OF PERFORMANCE AND EFFORT EXPECTANCY ON
TRAVELERS' INTENTION TO ADOPT VIRTUAL REALITY TOURS DURING
THE ENDEMIC PHASE:
A CONCEPTUAL STUDY**

Safwan Marwin Abdul Murad ¹, Arunnaa a/p Sivapathy ², Norzalita Abd Aziz ³

¹*School of Business Management, Universiti Utara Malaysia, Malaysia*

²*School of Business Management, Universiti Utara Malaysia, Malaysia*

³*Graduate School of Business, Universiti Kebangsaan Malaysia, Malaysia*

Abstract. Many tourists still consider being involved in tourism activities as a high-risk decision to make during this endemic phase. As a result, during this phase, tourists prefer not to spend a large amount of money on tourism activities, visit short distances destinations especially those destinations that are close to their homes and prefer to visit local tourist attractions. With regard to this phenomenon, many tourism players embraced innovative methods such as virtual reality tours (VRTs) to maintain their attractions strongly in the minds of potential travellers. Therefore, based on a combination of current literature, this study proposes a conceptual model to investigate travellers' intention to use virtual reality tours (VRTs). The conceptual model purposes that the level of performance expectancy and effort expectancy influences travellers' intention to use VRTs. This paper seeks to contribute to the existing body of knowledge by emphasizing the importance of performance expectancy and effort expectancy as the key factors that affect an individual's online usage behaviours and their implications for future study. Despite the fact that this is just a conceptual study, the contribution stated is relevant because conceptual studies are not without empirical insights but rather build on theories and concepts that are recognized and tested through empirical research.

Keywords: performance expectancy, effort expectancy, virtual reality tours (VRTs), tourism, endemic.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: marwin@uum.edu.my

Introduction

The world people live in now is recovering from the Covid-19 pandemic. On March 11, 2020, The World Health Organization (WHO) declared that COVID-19 spread as a pandemic. In the last two years, the COVID-19 pandemic has changed various parts of human lives which includes health practices, work ecosystems as well as how people socialise. Until now, COVID-19 is still existed and has different variants hence people have learned to adjust to these changes. As of now, many countries have reached a point where they are starting to change COVID-19 from being a pandemic to an endemic. This signified that the virus becomes more stable and manageable. As most countries have shifted Covid-19 to endemic, people start to live normally like before the outbreak of the virus.

However, the fact that the widespread Covid-19 has created panic, fear, health crisis, and economic as well as social interruptions cannot be denied (Verma et al., 2022). To make it worst, the pandemic had transverse shifts in consumer behaviour in terms of the way humans live such as how people work, play, learn, holiday and travel around the world (Yadav et al., 2022). The transverse changes had led to massive losses in various sectors, especially in the hospitality and tourism sector (Mahdikhani, 2022). COVID-19 created a sense of anxiety and insecurity reflected not just in the equity markets but also towards social norms (Ghosh & Sanyal, 2021). There is a steep jump in work-from-home practices and an extreme unemployment rate (Chakraborty & Kar, 2021).

It can be noted that 1,461 million people were travelling globally in 2019 while in 2020, there were only 381 million. This indicates that COVID-19 has caused a drop of 1080 million or 74% of travellers travelled in 2020 compared to 2019 (Verma et al., 2022). Now, more than two years later, people are stuck in a dilemma about whether it is safe for them to travel. Many tourists still consider being involved in tourism activities as a high-risk decision to make during this endemic phase. As a result, during this phase, tourists prefer not to spend a large amount of money on tourism activities, visit short distances destinations especially those destinations that are close to their homes and prefer to visit local tourist attractions.

With regards to this phenomenon, it led tourism industry players to adopt and adapt digital innovations in their businesses. Technology has provided new and innovative ways for tourism and hospitality industry players (Sharma et al., 2021). The Revolution of digital technology is altering the communication approaches between consumers and companies (Saheb et al., 2021). As a result, many tourism players embraced innovative methods such as virtual reality tours (VRTs) as an alternative to physical tours to maintain their attractions strongly and beautifully in the minds of potential travellers.

Virtual reality tour offers value added to tourism players in a way not just the technology offers realistic navigation of a destination or attraction, but it also provides a new interactive way for travellers to experience tourist places. VRT transformed the tourism industry with its revolutionizes functions and this technology is the future of tourism practices. VRT modernizes the traveller's experience at an affordable cost hence this technology has created promising opportunities in the hospitality and tourism industry (Kaushal & Srivastava, 2021). Therefore, this calls for a need to dig deeper into existing research and future possibilities.

Based on a combination of current literature, this study proposes a conceptual model to investigate travellers' intention to use virtual reality tours (VRTs). The conceptual model

purposes that the level of performance expectancy and effort expectancy influences travellers' intention to use VRTs. This paper seeks to contribute to the existing body of knowledge by emphasizing the importance of performance expectancy and effort expectancy as the key factors that affect an individual's online usage behaviours and their implications for future study. Despite the fact that this is just a conceptual study, the contribution stated is relevant because conceptual studies are not without empirical insights but rather build on theories and concepts that are recognized and tested through empirical research.

Literature review and propositions development

Virtual reality

Virtual reality (VR) is an innovative technology that utilises lifelike computer-generated 3D virtual environments (Guttentag, 2010). This technology allows users to navigate and interact with things, resulting in a three-dimensional perception (Sarkady et al., 2021). Virtual reality technology enables the users to experience the virtual environment realistically via multi-sensory information such as audio, visual, kinaesthetic or touch sensory that allow users to experience realistic responses from the environment that the user is embedded in (Tussyadiah et al., 2018; Vives & Slater, 2005). This multi-sensory information stimulated the mental state of the user and allows the user to feel he or she physically appears or is present in the virtual environment. This phenomenon is known as presence (Yung & Lattimore, 2017). Presence is a subjective feeling while immersion is the objective degree to which the user is separated from the real environment (Tussyadiah et al., 2018). Immersion is dependent on the extent to which a virtual reality structure can provide natural sensorimotor for perception for instance the resolution, frame rate, latency (the time it takes for data of a network to move from one point to another), or the device itself (Slater, 2018).

Virtual reality tourism

Various industries such as education, automotive, and healthcare are affected by the creation of virtual reality (VR). The proliferation of VR has also given a huge impact on the hospitality and tourism industry as a useful tool for tourism industry players and travellers to communicate] thanks to the capability of VR technology in creating and controlling three-dimensional atmosphere (Huang et al., 2013, 2016). The three-dimensional technology able to make the virtual environment feels real hence allows users to experience what is not yet there. This makes VR technology very effective in the tourism sector because it permits travellers to experience any future tourist attraction or places before they decide to visit hence assisting travellers with their travel planning (Disztinger et al., 2017).

VR has gained popularity notably in educational trips (Sarkady et al., 2021). The use of VR assists the learning process by leveraging the user's three-dimensional perception abilities, and the feeling of presence or "being there" (Verma et al., 2022) which gives users additional information and makes things interactive such as a Virtual Pyramid or Virtual Dinosaurs. Another important advantage of VR technology in the tourism sector is that this technology improved accessibility towards tourist attractions and destinations (Disztinger et al., 2017). Some tourist destinations are difficult to access due to distance (places situated far from the main centres of the population), underdeveloped, traveller's physical disabilities and costs factor. Therefore, VR increases the opportunity to access these types of travel destinations.

More tourism providers began deploying VR technology to provide the feeling of presence or “being there” to travellers (Disztinger et al., 2017; El-Said & Aziz, 2022; Guttentag, 2010; Mahera Ahmat Amin et al., 2021; Verma et al., 2022). VR technology has significant effects on the tourism sector hence increasing acts of employing VR technology by tourism providers is notable. Despite the significant impact of these technological changes on the tourism sector, studies related to the impact of technology and acceptance from the perspective of consumers remain limited during post-COVID-19 crises (Sarkady et al., 2021; Verma et al., 2022; Zhong et al., 2022), which this includes the contactless technologies such as VR technology. This study aims to contribute knowledge by investigating consumer or traveller acceptance of VR technology in the endemic phase (post-COVID-19).

Technology acceptance model

Research in technology acceptance has highly utilised the Theory of Planned Behaviour (TPB) developed by Ajzen (1991) and the Technology Acceptance Model (TAM) developed by Davis (1989) to predict and understand the factors that influence user’s behavioural intention (Murad et al., 2021; Murad & Aziz, 2019). This study employs the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh, Morris, Davis, and Davis in 2003. UTAUT incorporates eight prominent theories and models for the formulation of consumer behavioural intentions, especially in technological settings. As a result, this technology acceptance model can be considered one of the most inclusive models which include the key factors to understand the individual intention to accept technology.

Performance expectancy, effort expectancy, social influence, and facilitating conditions are the variables of the UTAUT model. These are the four main drivers of technology adoption according to the model. Out of the four variables, the most prominent factor of an individual’s intention to adopt technology is performance expectancy followed by effort expectancy (Venkatesh et al., 2012, 2016). Therefore, this study concentrates on the effect of performance expectancy and effort expectancy on travellers’ intention to use virtual reality tours (VRTs).

Performance expectancy (PE)

Performance expectancy (PE) has been defined as the degree to which individuals perceive using technology will assist him or her to attain gains while performing an action (Venkatesh et al., 2012). For instance, the applications of chatbots and other technologies assist travellers to plan and solve problems occurring on-site which have made travel easier (Pillai & Sivathanu, 2020). Sarkady et al. (2021) quantitative study found that perceived usefulness which is equivalent to performance expectancy has a strong direct effect on users’ behavioural intention, suggesting the intention of travellers to use VR during and after a COVID-19 crisis (post-COVID-19). In addition, Sarkady et al. (2021) found that people thought the use of VR could even replace real travelling. Another recent study conducted by Disztinger et al. (2017) revealed that the usefulness or performance factor is vital in affecting travellers to use VR for travel planning.

When encountered with a major disease outbreak or crisis, customers are likely to perceive contactless technology such as virtual reality tours (VRT) as notably useful and will assist them in their travel planning, thus, the effect of performance on behavioural increases. In line with this, the following propositions were formulated:

Proposition 1: Performance expectancy (PE) positively influence traveller’s behavioural intention to use virtual reality tours (VRTs) technology

Effort expectancy (EE)

Effort expectancy (EE) or also known as perceived ease of use refers is defined as the degree of ease related with the use of the technology (Venkatesh et al., 2012). In other words, this construct is about a person perceived that using technology will be easy or effortless. Effort expectancy has been found to have a positive effect on behavioural intention in a technology setting. For example, Celik (2016) study showed that consumers’ behavioural intention to shop online was positively influenced by effort expectancy. Chiao et al. (2018) in their recent study also found that effort expectancy and behavioural intention are positively correlated. The result also shows that effort expectancy is one of the important factors affecting users’ behavioural intention to use virtual tour guiding platforms for cultural tourism education.

When involved in technology, users would encounter various technical functions. The less complex the usage of the technology, the more attractive users are to use the technology. Users would need to put extra effort and energy to cooperate with technology such as VR technology which made them have to pay extra attention to the ease of use of VR technology. If a virtual reality tour (VRT) is easy and requires less effort to use, this will create a favourable behavioural intention of travellers to use the VRT technology.

Therefore, the relationship between effort expectancy on behavioural intention in this study is proposed as below:

Proposition 2: Effort expectancy (EE) positively influences travellers’ behavioural intention to use virtual reality tours (VRTs) technology.

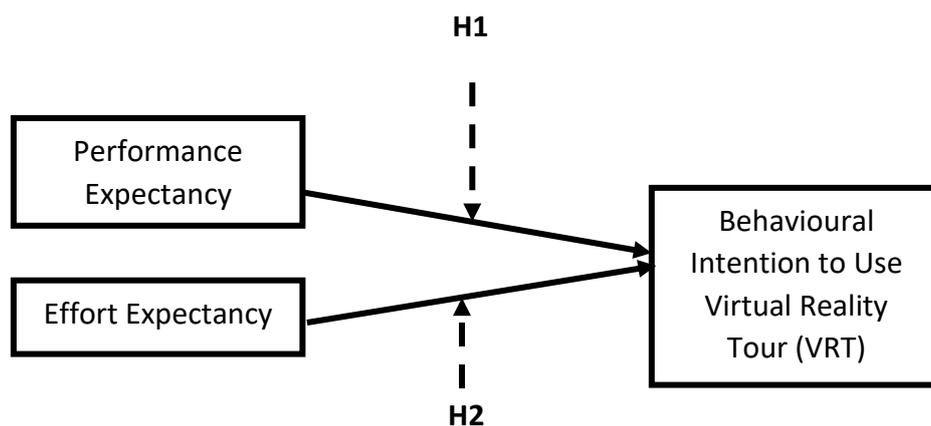


Figure 1: Proposed Conceptual Framework.

Methodology

Conceptual studies generally are not developed from data in the conventional sense but rather established from a combination, adaptation, review and analysis of data and research from previous empirical studies, theories, or ideas (Jaakkola, 2020). Jaakkola (2020) point out that statistical analysis is not the main objective of conceptual studies but stresses more on understanding the idea, concept or theory that explains the phenomenon, the concept or the subject being studied. The evidence in this study is portrayed from previous findings and research such as literature reviews and results from previous works, not the primary data. Empirical studies were reviewed, and a number of good research studies have been found and were referred to as key references for developing the conceptual model of this study. Therefore, the use of this type of methodology in developing this conceptual study is appropriate because it gives new and additional insights into the relationship between performance expectancy, effort expectancy and behavioural intention.

Conclusion

The proposed conceptual model aims to develop the existing knowledge on the role of performance expectancy and effort expectancy in affecting travellers' intention to use virtual reality tours (VRT). All these factors may affect travellers' positive behavioural response which is the intention to use VRT. The proposed conceptual model also provides some important understandings of theory as well as practice. Furthermore, the proposed conceptual model may be deemed vital for academic scholars and tourism providers or practitioners, specifically in the e-tourism context. For scholars, this study may provide a preliminary idea or may offer a new perception that can be utilized to further understand this under-investigated area of study, especially in the endemic phase (post-COVID-19). Additionally, this study may provide an initial idea or can be utilized by tourism providers which can be used as a guidance and direction towards the possible factors that might assist them to build and employ effective strategies. A huge investment has been put up by tourism industry players towards the use of new technology in their business operations such as VRT technology. Therefore, these tourism providers must gain promising results from the platforms they hugely invested in.

References

- Celik, H. (2016). Customer online shopping anxiety within the Unified Theory of Acceptance and Use Technology (UTAUT) framework. *Asia Pacific Journal of Marketing and Logistics*, 28(2), 278–307. <https://doi.org/10.1108/17465681011017255>
- Chakraborty, A., & Kar, A. K. (2021). How did COVID-19 impact working professionals – a typology of impacts focused on the education sector. *The International Journal of Information and Learning Technology*, 38(3), 273–282. <https://doi.org/10.1108/IJILT-06-2020-0125>
- Chiao, H. M., Chen, Y. L., & Huang, W. H. (2018). Examining the usability of an online virtual tour-guiding platform for cultural tourism education. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 23, 29–38. <https://doi.org/10.1016/j.jhlste.2018.05.002>
- Disztinger, P., Schlögl, S., & Groth, A. (2017). Technology Acceptance of Virtual Reality for Travel Planning. In *Information and Communication Technologies in Tourism 2017* (pp. 255–268). Springer International Publishing. https://doi.org/10.1007/978-3-319-51168-9_19
- El-Said, O., & Aziz, H. (2022). Virtual Tours a Means to an End: An Analysis of Virtual Tours' Role in Tourism Recovery Post COVID-19. *Journal of Travel Research*, 61(3), 528–548. <https://doi.org/10.1177/0047287521997567>

- Ghosh, I., & Sanyal, M. K. (2021). Introspecting predictability of market fear in Indian context during COVID-19 pandemic: An integrated approach of applied predictive modelling and explainable AI. *International Journal of Information Management Data Insights*, 1(2). <https://doi.org/10.1016/j.jjime.2021.100039>
- Guttentag, D. A. (2010). Virtual reality: Applications and implications for tourism. *Tourism Management*, 31(5), 637–651. <https://doi.org/10.1016/j.tourman.2009.07.003>
- Huang, Y. C., Backman, K. F., Backman, S. J., & Chang, L. L. (2016). Exploring the Implications of Virtual Reality Technology in Tourism Marketing: An Integrated Research Framework. *International Journal of Tourism Research*, 18(2), 116–128. <https://doi.org/10.1002/jtr.2038>
- Huang, Y. C., Backman, S. J., Backman, K. F., & Moore, D. W. (2013). Exploring user acceptance of 3D virtual worlds in travel and tourism marketing. *Tourism Management*, 36, 490–501. <https://doi.org/10.1016/j.tourman.2012.09.009>
- Jaakkola, E. (2020). Designing conceptual articles: four approaches. *AMS Review*, 10(1–2), 18–26. <https://doi.org/10.1007/s13162-020-00161-0>
- Kaushal, V., & Srivastava, S. (2021). Hospitality and tourism industry amid COVID-19 pandemic: Perspectives on challenges and learnings from India. *International Journal of Hospitality Management*, 92. <https://doi.org/10.1016/j.ijhm.2020.102707>
- Mahdikhani, M. (2022). Predicting the popularity of tweets by analyzing public opinion and emotions in different stages of the Covid-19 pandemic. *International Journal of Information Management Data Insights*, 2(1). <https://doi.org/10.1016/j.jjime.2021.100053>
- Mahera Ahmat Amin, S., Adenan, H., Syamilah Zaid, D., Muhamad Parid, D., Mahera Ahmat Amin Pensyarah, S., Pengurusan Hospitaliti dan Pelancongan, F., Adenan Pensyarah, H., Syamilah Zaid Pensyarah, D., & Muhamad Parid Pensyarah, D. (2021). Identifying Tourist Response Towards Virtual Tour. *Journal of Hospitality and Networks*, 1, 32–37.
- Murad, S. M. A., & Aziz, N. A. (2019). Investigating the Factors Influencing Travellers ' Purchase Intention Via Online Travel Intermediaries Websites. *Jour of Adv Research in Dynamical & Control Systems*, 11(5), 803–812.
- Murad, S. M. A., Sivapathy, A., & Nor, A. A. M. (2021). The Impact of Performance Expectancy on Purchasing Travel Products Via Online Travel Agents Websites: Gender as Moderator. *Journal Voice of Academia*, 17(1), 116–128.
- Pillai, R., & Sivathanu, B. (2020). Adoption of AI-based chatbots for hospitality and tourism. *International Journal of Contemporary Hospitality Management*, 32(10), 3199–3226. <https://doi.org/10.1108/IJCHM-04-2020-0259>
- Saheb, T., Amini, B., & Kiaei Alamdari, F. (2021). Quantitative analysis of the development of digital marketing field: Bibliometric analysis and network mapping. In *International Journal of Information Management Data Insights* (Vol. 1, Issue 2). Elsevier Ltd. <https://doi.org/10.1016/j.jjime.2021.100018>
- Sarkady, D., Neuburger, L., & Egger, R. (2021, January). Virtual Reality as a Travel Substitution Tool During COVID-19. *Information and Communication Technologies in Tourism 2021*.
- Sharma, R., Kumar, A., & Chuah, C. (2021). Turning the BlackBox into a glass-box: An explainable machine learning approach for understanding hospitality customer. *International Journal of Information Management Data Insights*, 1(2). <https://doi.org/10.1016/j.jjime.2021.100050>
- Slater, M. (2018). Immersion and the illusion of presence in virtual reality. In *British Journal of Psychology* (Vol. 109, Issue 3, pp. 431–433). John Wiley and Sons Ltd. <https://doi.org/10.1111/bjop.12305>

- Tussyadiah, I. P., Wang, D., Jung, T. H., & tom Dieck, M. C. (2018). Virtual reality, presence, and attitude change: Empirical evidence from tourism. *Tourism Management*, 66, 140–154. <https://doi.org/10.1016/j.tourman.2017.12.003>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, 36(1), 157–178.
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead. *Journal of The Association for Information Systems*, 17(5), 328–376.
- Verma, S., Warriar, L., Bolia, B., & Mehta, S. (2022). Past, present, and future of virtual tourism-a literature review. *International Journal of Information Management Data Insights*, 2(2). <https://doi.org/10.1016/j.ijime.2022.100085>
- Vives, S., & Slater. Mel. (2005). From presence to consciousness through virtual reality. *Nat Rev Neurosci* , 6, 332–339. www.nature.com/reviews/neuro
- Yadav, H., Kar, A. K., & Kashiramka, S. (2022). How does entrepreneurial orientation and SDG orientation of CEOs evolve before and during a pandemic. *Journal of Enterprise Information Management*, 35(1), 160–178. <https://doi.org/10.1108/JEIM-03-2021-0149>
- Yung, R., & Khoo-Lattimore, C. (2017). New realities: a systematic literature review on virtual reality and augmented reality in tourism research. In *Current Issues in Tourism* (Vol. 22, Issue 17, pp. 2056–2081). Routledge. <https://doi.org/10.1080/13683500.2017.1417359>
- Zhong, L., Coca-Stefaniak, J. A., Morrison, A. M., Yang, L., & Deng, B. (2022). Technology acceptance before and after COVID-19: no-touch service from hotel robots. *Tourism Review*, 77(4), 1062–1080. <https://doi.org/10.1108/TR-06-2021-0276>

SERENE BUSINESS ENVIRONMENT AND THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN MALAYSIA

Khar Kheng YEOH

Universiti Utara Malaysia

Abstract. The effect of business environment on the performance of small and medium enterprises (SMEs) has been widely studied. However, research on the effect of serene business environment on the performance of SMEs are lacking, notably in the context of Malaysia. Therefore, this study examined the effect of serene business environment on the performance of SMEs in Malaysia. Related literature was critically reviewed and five hypotheses on the effect of serene business environmental factors on performance were formulated. By adopting cross sectional survey design, a data of 148 respondents was collected and analyzed using descriptive and inferential statistical tools – statistical package for social sciences (SPSS) and partial least square – structural equation modelling (PLS-SEM). From the empirical findings, Malaysia’s serene business environment is critical in stimulating the performance of SMEs. Financial market environment, technological environment and regulatory environment exerted positive significant effect on SMEs’ performance. Nonetheless, economic environment and competitive environment indicated strong, but negative significant effect on SMEs’ performance. These findings proposed new insights in this field of research, by providing relevant research implications and suitable recommendations to business managers and policy makers in Malaysia.

Keywords: Serene business environment, performance, SMEs, Malaysia.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Tel.: +604-9287524. Email address: kharkheng@uum.edu.my

Introduction

It is an established fact that small and medium enterprises (SMEs) are the engine for economic growth (Sana, Poddar & Paul, 2020), specifically for gross domestic product (GDP) growth, expansion of job opportunities, productive assets redistribution and standard of living improvement in any nation (Sitharam & Hoque, 2016). Nonetheless, due to the nascent nature of SME, a high rate of failure was reported globally (Fang, Yuli & Hongzhi, 2009), due to the inability to navigate successfully within the business environment (Takata, 2016). Commander and Svejnar (2011) noted that business environment as often dynamic and complex, as several external environmental elements could exert significant impact on the performance and profitability of SMEs. Many SMEs could not achieve the desired level of performance in an environment that is characterized by high level of environmental ambiguity (Chen et al., 2014); volatile and uncertain environment (Yayla & Hu, 2012), crime and corruption (Bah & Fang, 2015); economic and political instability (Meyer, 2019); lack of new technology/technology upgrade (Adeoye & Elegunde, 2012) and inadequate access to finances (Haron & Ibrahim, 2016). Hence, enabling serene business environment is fundamentally critical for SMEs' development (Meyer, 2019), as the external business environment is critically significant for firms seeking to survive, to improve performance and to achieve high growth (Prajogo, 2016; Zhang, van Doorn & Leeftang, 2014).

Prior studies studied the effect of business environment on performance of SMEs (Sitharam & Hoque, 2016; Eruemegbe, 2015; Chadee & Roxas, 2013; Mazanai & Fatoki, 2012), with greater focus on internal drivers and external environmental forces and long-term business objectives and higher financial returns (Leonidou, Christodoulides, Kyrgidou & Palihawadana, 2015); marketing capabilities and industry forces (competitive rivalry and power of suppliers) and performance (Takata, 2016); and regulation, crime, corruption, infrastructure and output and productivity of firms (Bah & Fang, 2015). However, neglecting the effect of serene business environment on the performance of SMEs in the Covid-19 era. A number of scholars contend that globally, Covid-19 pandemic has created changes in the external environment and disrupted business operations and thus, resulting to decline in productivity and performance level, as well as collapse of SMEs (Fu, 2020, WEO, 2020). In this study, a serene business environment is described as one with favorable financial market, technological, economic and competitive atmosphere; as well as supportive regulatory framework for SMEs to freely operate and improve performance level in the market scene. Therefore, the current research seeks to fill this gap. The present paper is structured as follows: introduction, literature review (business environment, Malaysia's serene business environment, performance, conceptual framework and hypotheses development), methodology, analysis and findings, discussion and implications.

Literature review

Concept of Business Environment

The concept of business environment is diverse and lacks a universally acceptable definition, because it is often described as the totality of the surroundings of an organization (Eruemegbe, 2015); with all the influences, conditions and circumstances affecting and impacting development of a firm, as a whole (Harrison, 1996); as well as, environmental dynamics, complexities, forces and factors that affect business enterprises (Ola, 1993), or influences on

individual's organization (Oyebanji, 1994), under different circumstances of varying degrees (Aldrich, 1979). In the same manner, business environment is defined as factors both inside and outside the organization, influencing the perpetuity and successful existence of the organization (Sitharam & Hoque, 2016). Hence, factors inside the business are known as internal environment; while, factors outside the business are known as external environment and the firm must learn to simultaneously interact, adapt, transform and leverage circumstances and phenomenon to satisfy its needs of perpetual continuity (Atsegbua, 2002).

Malaysia's Serene Business Environment

Malaysia is one of the emerging economies of the world, located in the Southeast of Asia (Lee, Wong, Intarakumnerd & Limapornvanich, 2020). The country is endowed with serene (favorable) business environment (Meyer, 2019), abundant natural resources and housed plethora of business enterprises – both domestic and multi-national corporations, including micro, small, medium and large businesses (Cheong, Lee & Weissmann, 2020). Hence, the government of Malaysia is committed to provide enabling environment that support enterprises through pro-business national policies. Hamdan, Fathi and Mohamed (2018) highlighted many businesses in Malaysia had achieved diversification and growth both at the local and international market scene, as the government had introduced many farsighted policies to support SMEs, in terms of technology transfer, industrial linkages, and access to finance to improve firms' competitiveness in the market. Among the policies are "import substituting industrialization (ISO) and export-oriented industrialization (EOI)" introduced between 1960 and 2000. The aim of the policies is to discourage importation of goods and services, revamp local economy (production) and encourage exportation of Malaysia's goods. The Malaysian government also introduced "Look east policy of 1980 – 2000 and science and technology policy of 1980," which seek to improve work organization and management style, enhance transfer of soft technology and development of new knowledge-based industries, and commercialization of products. Furthermore, the government of Malaysia introduced an "industrial master plan (1980 – 2020), national automotive policy (2000 to date) and offset policy (1980 – 2014)" to help SMEs sustain productivity, compete in the marketplace and achieve economic of scale through value added activity, research and development, technology transfer and increased industry linkage.

However, the emergence of Covid-19 pandemic in Malaysia like other countries has adversely affected the business environment, due to lockdown and restriction of movement (Naradda Gamage et al., 2020). Hence, companies must transform themselves into the "new normal" and rely more on online presence, automation of production process and new method of delivering product or services to customers (Nadyan, Selvia & Fauzan, 2021; Fu, 2020). Notwithstanding, the Malaysia's business environment is regarded as serene, because despite the disruption of business activities; still, the country is able to preserve the financial market and general economic and political environment (Nadyan, Selvia & Fauzan, 2021). Likewise, the government assists businesses in terms of fund, technology upgrade and adoption of latest technology, as well as efficient regulatory framework, in order to improve productivity and firms' competitiveness (Lee et al., 2020; Hamdan et al., 2018). Therefore, the building block of Malaysia's serene business environment are: (1) financial market environment, (2) technological environment, (3) economic environment, (4) competitive environment, and (5) regulatory environment.

Financial Market Environment

Financial market environment relates to supply and demand of finances (flow of finances) in the market environment in one hand, and transactions between lenders and borrowers on the other hand (Makorere, 2014). Salikin, Ab Wahab and Muhammad (2014) asserted that the decision to raise money (debt financing, equity financing or retained earnings) and finance productive assets or expand capital base to achieve growth is the core responsibility of business managers. Hence, finances, internal or external are critical to the SMEs' growth, and lack of finances can result to business failure (Haron & Ibrahim, 2016). The Malaysian government through SME Corp initiated various financial and infrastructural assistance to SMEs in three key aspects (loans, credit and equity participation; financial grant; and infrastructure and support services), in order to fully access, perform and compete in the business environment (Cheong et al., 2020). Other financing options available for SMEs in Malaysia, specifically introduced for working capital and projects financing are New Entrepreneurs Fund 2, Soft Loan Scheme and Fund for Small and Medium Industries 2 (Cheong et al., 2020).

Likewise, the Malaysian government provides information management training, human capital development and small debt resolution scheme for SMES. In the short-run, this will improve marketing efforts, product rollout and sustain operation; and in the long-run generate enough profit (Brau, Cardell & Woodworth, 2015). Hosamane and Alroaia (2009) noted that the purpose of the government grants and various support programs, is for the SMEs to improve production process, absorb risks, minimize operational costs and salvage precarious positions. Hence, the government introduced grants and other loan packages to create a conducive business environment through increased access to external sources of finance, as that would insulate the SMEs in terms of capital structure, greater uptake of entrepreneurial activity and reduction of revenue-expenses imbalance (Madrid-Guijarro, Garcia & Van Auken, 2009; Berger & Udell, 2006). Therefore, financial market environment is conceptualized as level of accessibility of internal and external finances by business enterprises.

Technological Environment

Technological environment encompasses the degree of adoption of new technology in one hand; and the degree of technological advancement on the other hand (Lee et al., 2020). Hence, in the era of the 4th Industrial Revolution (IR 4.0), Malaysia has achieved a realistic level of technological sophistication, especially in the food processing, electronics and automotive subsector. Lee et al. (2020) explained that IR 4.0 is the era of smart factories as it featured several technologies such as Internet of things (IoTs), smart cars, big data, artificial intelligence (AI) and 3D printing to satisfy the order of an on-demand economy; on the other hand, IR 3.0 and 2.0 symbolized the era of automation and mass production stage. Noting that a reasonable number of factories in Malaysia are still in the automation stage. It is suggested that robust innovation system should be established to network various industry players, improve utilization of codified knowledge and stimulate creativity and a diffusion of process.

SMEs should display high readiness to accept the science and technology policy as contained in the industrial master plan by incorporating high level technology through automation upgrade to further strengthen business performance and competitiveness of firms (Hamdan et al., 2018). For an instance, Penang Skill Development Centre (PSDC) and Penang R&D Consortium (CREST) support SMEs in the areas of training, research and development, and industrial cooperation with universities and multinational corporations. Thus, technological environment is described as the level of adoption of new technology or technological upgrade for SMEs to improve business performance in the market place (Eruemegbe, 2015).

Economic Environment

The general economic environment is conceptualized in terms of continuity of economic-political orientation, security of doing business, impact of social and business culture, legislation, economic and fiscal factors and general prosperity, as well as dynamics of macroeconomics indicators (Dragnić, 2014). According to Meyer (2019), Malaysia has achieved economic growth for quite some decades, with inclusive and rapid GDP growth of 6.4%. Hence, with the 11th Malaysia development plan, the Malaysian economy has absorbed all external shocks (Koen et al., 2017) and become more open, modern and diversified (Raza, Mohiuddin, Zaidi & Osama, 2018). Similarly, Lee et al. (2020) acknowledged that the Malaysian economy has developed from an economy that export primary commodities or depend on agriculture, to one that appropriate multisector for growth. Hence, the Malaysian government implemented various economic policies that supported job creation and technology transfer through establishment of business enterprises (domestic and multinational corporations) and interfirm collaborations (Thiruchelvan, Ng & Wong, 2013). In addition, Malaysia has implemented industrial policy that assists indigenous business to operate and compete in both capital intensive and high technology demanding industries (Rasiah, Shan & Salih 2017).

Accordingly, Meyer (2019) established that the Malaysian economy has seen improvement in the general environment based on socio-economic development indexes such as – life expectancy (above 75 years), Happy Planet Index (46th), Global Competitiveness Index (23rd), Economic Freedom Index (22nd in the world), Political Stability Index (0.16 out of 2.5), Effective Governance Index (0.84 out of 2.5), and Global Corruption Control Index (47 out of 100). Therefore, the general economic environment is described as one with stable political and government system, as well as quality institutions and suitable policies and programs, to support SMEs performance improvement in the market scene (Sana et al., 2020; Meyer, 2019).

Competitive Environment

A competitive environment is an important driver of SMEs performance, particularly in the age of globalization, as SMEs struggle to improve technology and distinguish themselves, in order to sustain productivity, increase market shares and achieve high performance level in a highly competitive environment, where customer expectations and technology change frequently; and also, a large number of companies offer similar products (Prajogo, 2016). According to Isa, Saman and Preece (2015), Malaysia, through the third Industrial Malaysia Plan (IMP) and 10th Malaysian Plan (10MP) paves the way in the encouragement of SMEs to establish a foothold and gain competitive advantage both locally and internationally. Consequently, the Malaysian government assisted SMEs in providing a responsive competitive environment that seeks to adopt technology, reduce trade barriers and establish good business management practices, in order for firms to – build reputation and capabilities, expand operations and achieve optimum performance (Meyer, 2019). It is suggested that competitive environment should provide a level playing field for SMEs to enjoy equal opportunities, and none should suffer undue disadvantages or enjoy undue privileges (Chadee & Roxas, 2013). Hence, competitive environment is one that enable SMEs to demonstrate “opportunistic behavior” in outperforming competitors in the market place (Deng & Low, 2014).

In addition, Leonidou et al. (2015) contend that competitive intensity is a reflection of a competitive environment, where market forces such as bargaining power of buyers or suppliers, ease of market entry, product substitutability and competitive rivalry are most important drivers of performance level among business enterprises. Likewise, Njagi and Kombo (2014) asserted that highly competitive environment is often complex and dynamic requiring constant scanning

to discover threats and opportunities in the general environment, and implement various strategies to outperform competitors. Therefore, competitive environment is described in terms of degree of competitiveness or competitive intensity in the business environment.

Regulatory Environment

Regulatory environment is conceptualized in terms of regulatory quality – rule of law (Chadee & Roxas, 2013), and regulatory framework (Leonidou et al., 2015). While, regulatory quality relates to the level at which firms comply with government regulatory procedures in doing business, licenses permit, existing rules and laws, as well as bureaucratic rigidities of government agencies. On the other hand, regulatory framework relates to regulatory forces and environment legislations that govern business activities. Hence, the government must reshape the business environment through adoption of various legislations and laws (Marinova, Child & Marinov, 2012). Subsequently, the Malaysian government provides sound regulatory environment through a framework that governs both technology transfer, industrial linkages, as well as establishment and operations of businesses – micro, small, medium, large and multinational enterprises (Hamdan et al., 2018). Accordingly, Chadee and Roxas (2013) emphasized that a sound regulatory environment is one that is free of crime and corruption and at the same time, upholds the rule of law principles. Therefore, the concept of regulatory environment, in this study demonstrates the ability of business enterprises management in dealing or complying with relevant government regulations (Aterido, 2009).

Concept of SMEs' Performance

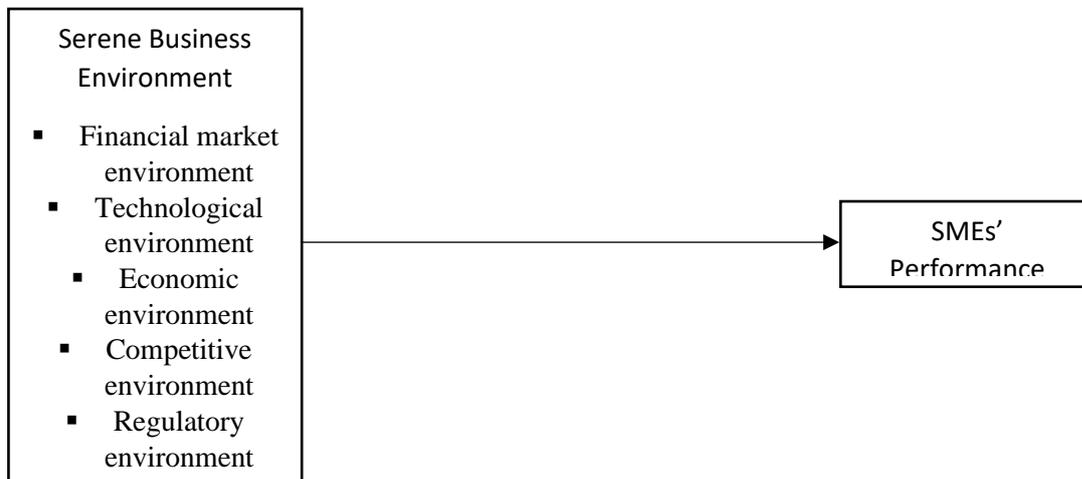
The literature showed that the concept of SMEs' performance is synonymous with organizational performance (Chen et al., 2014), business performance (Prajogo, 2016) and firm performance (Commander & Svejnar, 2011). Similarly, the term performance had undergone a revolutionary process. For example, Leonidou et al. (2015) defined performance as the final achievement of an organization which is measured using financial and non-financial indicators and contains elements such as – the existence of certain targets achieved, which has a period of time in achieving the targets and the realization of efficiency and effectiveness. Likewise, Takata (2016) asserted that performance is the ability of an enterprise to achieve such objectives as profitability (return on capital, high profit margin and increase in net profit), as well as market effectiveness (increase in sales revenue and large market share) and market growth.

Therefore, performance is visualized to demonstrate how well an enterprise is doing in relation to other enterprises in the same industry, in terms of the level of capacity utilization (Chadee & Roxas, 2013); market performance and financial performance (Leonidou et al., 2015); sales growth and profitability (Prajogo, 2016); as well as, increase in sales, and achievement of corporate goals (Adeoye & Elegunde, 2012). Commander and Svejnar (2011) have identified factors that could improve the performance of business organizations. Equally, Takata (2016) maintained that business environment within which an enterprise operate could have an effect on its overall performance. Hence, serene business environmental factors are essential in the improvement of performance level (achievement of long-term objectives and higher financial returns).

Conceptual Framework

The conceptual framework is based on the believe that serene business environment enhances the performance of SMEs. In this framework, serene business environment is conceptualized in terms of financial market environment, technological environment, economic environment,

competitive environment and regulatory environment which were recognized as potential factors that enhance the performance of SMEs in Malaysian context. Figure 1 showed that serene business environmental factors are the independent variables; while, performance is the dependent variable.



H)Figure 1: Conceptual Framework

There has been a long tradition of support for the assumption that environmental factors influence performance of SMEs (Leonidou et al., 2015). Similarly, several studies have established a relationship between different environmental factors and organizational performance (Chen et al., 2014), business performance (Prajogo, 2016), and firm performance (Commander & Svejnar, 2011). Consequently, Sitharam and Hoque (2016) posit that firms should monitor their external environment when considering the improvement of their performance level.

Financial Market Environment and Performance

The effect of different factors in the financial market environment on performance of SMEs has been widely studied. In a study, Cheong et al. (2020) showed that access to credit sources is important in boosting SMEs' performance. Equally, the study of Brau et al. (2015) found that government grant assistance is very effective in enhancing profitability and sustainability of SMEs both at short and long term. Also, Banerjee and Duflo (2010) established that SMEs growth is stimulated by easy access to finance. In addition, Chaudhuri, Boer and Taran (2018) found that strong positive causal effect exists between better access to finance and growth of SMEs. Yet, De and Nagaraj (2014) have established a positive relationship between better funding, productivity and liquidity of SMEs. Moreover, Haron and Ibrahim (2016) upheld that Islamic financing schemes are critical for the growth, development and competitiveness of SMEs. Therefore, the study hypothesized that:

H1: Financial market environment exerts significant effect on SMEs' performance in Malaysia.

Technological Environment and Performance

Prior studies have investigated the relationship between technological environment and performance of SMEs. Accordingly, the study of Hamdan et al. (2018) found that effective technology transfer is important in supporting SMEs' growth and performance. Similarly, Sitharam and Hoque (2016) established that technological advancement is critical in promoting

the performance of SMEs. Equally, Eruemegbe (2015) established that technological equipment exerts great influence on organizational performance. Likewise, the study of Chen et al. (2014) reported that information technology adoption can enhance organizational performance of SMEs. In addition, Adeoye and Elegunde (2012) showed that technological factor exerts great impact on performance of SMEs. Moreover, Yayla and Hu (2012) information technology alignment exert a statistically strong influence on the performance of SMEs. Therefore, the study hypothesized that:

H2: Technological environment exerts significant effect on SMEs' performance in Malaysia.

Economic Environment and Performance

The relationship between general economic environment and SMEs' performance has been investigated. For example, Dragnić (2014) reported that the performance of SMEs which is measured in relation to sales growth and goals achievement is significantly influenced by the general state of the economy. Similarly, the study of Adeoye and Elegunde (2012) found that both economic, political and socio-cultural factors have influence on the performance of SMEs, which is measured in terms of achievement of profitability and corporate goals, increase in sales and effectiveness and efficiency. In addition, Meyer (2019) contends that certainty of economic policies and political stability or freedom are key factors that determine both investment and growth of business enterprises. Therefore, the study hypothesized that:

H3: Economic environment exerts significant effect on SMEs' performance in Malaysia.

Competitive Environment and Performance

A number of scholarly works have found a relationship between competitive environment and performance of SMEs in different contexts. For instance, the study of Prajogo (2016) showed that environmental competitiveness is key in facilitating SMEs' performance. Equally, Leonidou et al. (2015) reported that highly competitive intensity affects the performance of SMEs. Even so, Takata (2016) established that competitive forces of an industry such as power of suppliers and competitive rivalry are major factors that drive performance of SMEs, followed by pricing and new product development. Also, Mat Isa et al. (2015) found that competitive market factors are important determiners of SMEs' performance in Malaysia. In addition, Chen et al. (2014) found that performance level of SMEs is strengthened by competitive environmental complexities. Therefore, the study hypothesized that:

H4: Competitive environment exerts significant effect on SMEs' performance in Malaysia.

Regulatory Environment and Performance

Previous studies showed that regulatory environment is critical in boosting the performance of SMEs. For example, Leonidou et al. (2015) stated that high public concern and regulatory intensity affect the performance of SMEs. Again, Chadee and Roxas (2013) highlighted that both rule of law and regulatory quality may have a direct impact on firm performance. Also, the study of Cheong et al. (2020) found that tax rules are important in boosting SMEs' performance. Even so, Meyer (2019) maintained that both property right protection and law and order are significant factors that influence investment and growth among business enterprises. Furthermore, Bah and Fang (2015) established those environmental regulations have direct linkage with productivity and output of firms in Africa. Therefore, the study hypothesized that:

H5: Regulatory environment exerts significant effect on SMEs' performance in Malaysia.

METHODOLOGY

This research is quantitative and cross sectional, which relies on analysis and interpretation of outcome at a point in time. Based on the research objectives, a questionnaire was designed to obtain personal information of owners/managers of SMEs, as well as data of research variables using nominal, ordinal and Likert scale. A total of 2,358 SMEs in Penang, Malaysia, were the population of this study (Haron & Ibrahim, 2016), which accounted for a sample size of 331 as computed by Krejcie and Morgan (1970). Accordingly, prior instruments were adopted to measure the research variables. While, 4 items that measure the dependent variable – performance were adopted from Chen et al. (2014). On the other hand, items that measure the independent variables were adopted as follows: 2 items for financial market environment adopted from Cheong et al. (2020); 4 items for technological environment adopted from Aziz and Yassin (2010); 5 items for economic environment adopted from Meyer (2019); and 4 items for competitive environment and 6 items for regulatory environment adopted from Leonidou et al. (2015). The data was analyzed by employing statistical package for social science (SPSS) and partial least square – structural equation modelling (PLS-SEM).

DATA ANALYSIS AND FINDINGS

Response Rate

In this study, 331 questionnaires were distributed to owners and managers of SMEs in Penang, Malaysia. However, the study managed to retrieve 147 questionnaires from the respondents. While, a total of 184 respondents did not return the questionnaires. Additionally, in the preliminary analysis, 7 questionnaires were observed as outliers and therefore, removed from further analysis, accounting for a response rate of 42.29%.

Descriptive Statistics

The result of descriptive statistics is shown in Figure 2, 3 and 4. The age profile of respondents, in Figure 2, showed that 128 out of the 140 owners/managers of SMEs who responded to the questionnaire, are male (91.4%). On the other hand, 12 owners/managers of SMEs who responded to the questionnaire, are female (8.6% of the respondents).

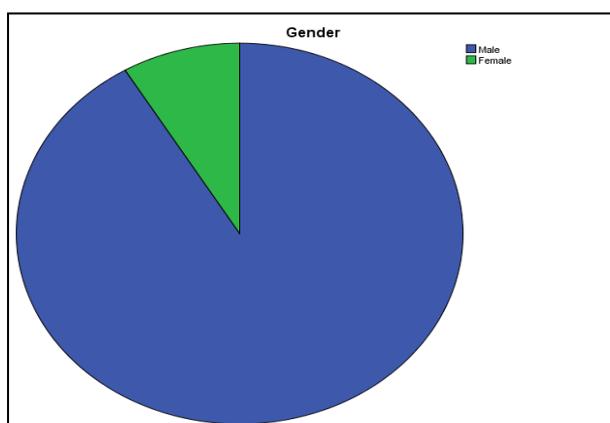


Figure 2: Age Profile of Respondents

Furthermore, in terms of the sector of business operation, Figure 3 showed that the majority (44.3%) of the SMEs' owners/managers who filled the questionnaire (62 respondents) operate

in the manufacturing sector. While, the second largest category of the SMEs' owners/managers who filled the questionnaire (51 respondents), accounting for 36.4% of total respondents, operate in the service sector. Whereas, 27 SMEs' owners/managers who filled the questionnaire, accounting for 19.3% of the total number of respondents operate in other sectors (agriculture, food and beverage, or mining).

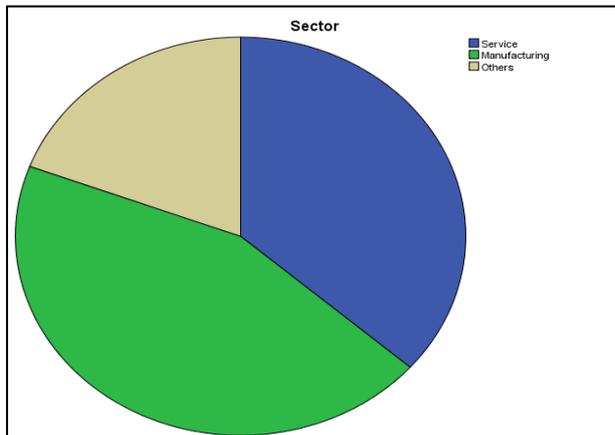


Figure 3: SMEs Sector

In terms of the duration of business operation, Figure 4 showed that majority of the owners and managers of SMEs who filled the questionnaire (64 respondents and 45.7% of the total number of respondents) have been in business for the past 5 years. On the other hand, 56 owners and managers of SMEs (40% of total respondents) have been in business for the past 10 years. Yet, Figure 4 demonstrated that 20 owners and managers of SMEs (14.3% of total respondents) have been in business for more than 10 years.

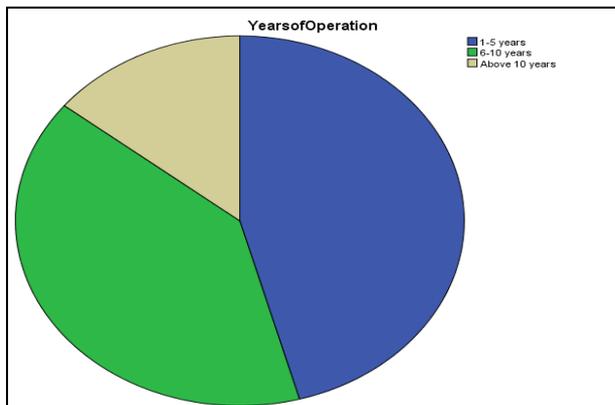


Figure 4: Years of Operation

Assessment of Measurement Model

The measurement model assessment is presented in Figure 5. In the assessment, Hair et al. (2014)'s PLS-SEM technique of assessment was followed, and according to the outcome, all variables in this study have adequate reliability and validity level. However, the average variance extract (AVE) is achieved after deletion of 1 item among the 4 items that measured performance, 1 item among the 4 items that measured technological environment, 2 items among the 5 items that measured economic environment, 1 item among the 4 items that measured competitive environment, and 3 items among the 6 items that measured regulatory

environment. Surprisingly, no single item was deleted among the 2 items that measured the financial market environment, as it has the highest AVE.

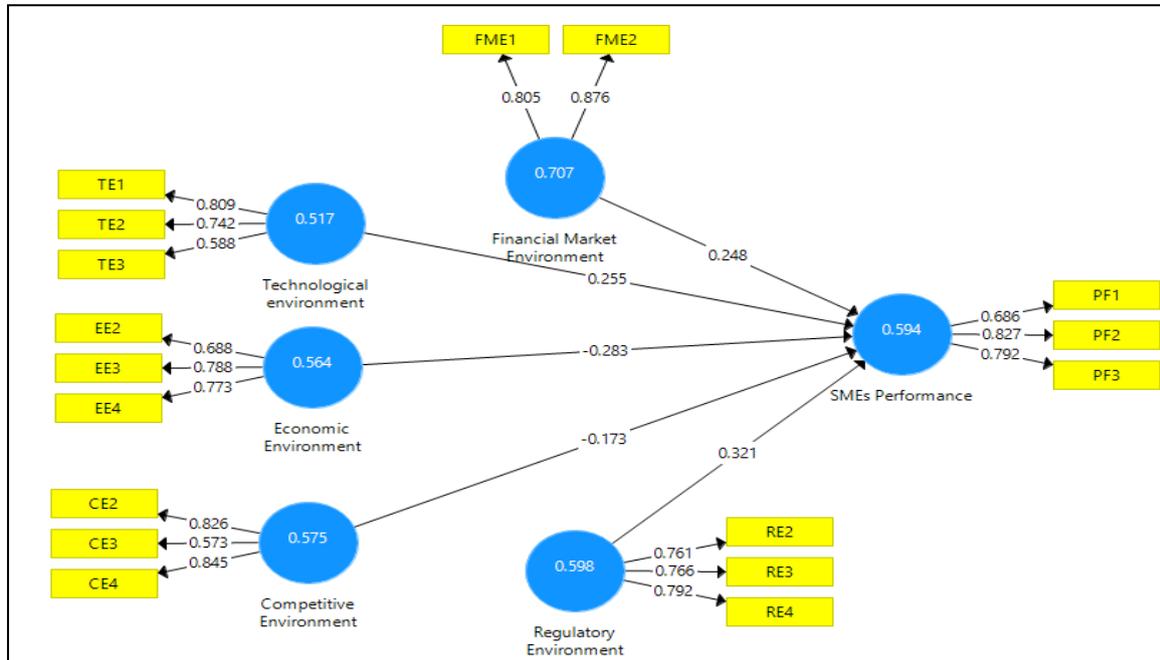


Figure 5: Measurement Model Assessment

Similarly, Table 1 showed that the composite reliability value for all the constructs is satisfactory and ranges from 0.760 to 0.826. Likewise, all the constructs have satisfactory value of AVE of 0.5, which ranges from 0.517 to 0.707. Hence, both reliability coefficient and AVE value are above the recommended threshold.

Table 1: Reliability and Validity of Instruments

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Competitive Environment	0.647	0.798	0.575
Economic Environment	0.628	0.794	0.564
Financial Market Environment	0.590	0.828	0.707
Regulatory Environment	0.664	0.817	0.598
SMEs Performance	0.658	0.814	0.594
Technological environment	0.549	0.760	0.517

Furthermore, in establishing discriminant validity of instruments, Fornell-Larcker Criterion in Table 2 is established to be adequate and acceptable, because each of the latent variables has strong loading (both in rows and columns) in its own construct. Suggesting no multicollinearity problem among variables.

Table 2: Fornell-Larcker Criterion

	1	2	3	4	5	6
Competitive Environment	0.758					
Economic Environment	0.166	0.751				
Financial Market Environment	-0.225	-0.072	0.841			
Regulatory Environment	-0.002	-0.088	0.200	0.773		

SMEs Performance	-0.304	-0.371	0.500	0.419	0.771	
Technological environment	-0.111	-0.052	0.504	0.092	0.444	0.719

Assessment of Structural Model

This study utilized PLS-SEM in establishing causal relationship between the research variables. According to Hair, Sarstedt, Ringle and Mena (2012), PLS-SEM is a contemporary statistical tool which is more robust over other covariance-based techniques such as AMOS and SPSS. Similarly, Bagozzi and Yi (2012) acknowledged that PLS-SEM is better in testing causal relationships for its high estimation power, even when non-complex models are involved. According to the outcome in Table 3, 52.9% of variance in performance was explained by financial market environment, technological environment, economic environment, competitive environment and regulatory environment. Moreover, the result in Figure 6 showed that financial market environment ($B = 0.248$, $t\text{-value} = 3.440$, $p\text{-value} = 0.00$), technological environment ($B = 0.255$, $t\text{-value} = 3.590$, $p\text{-value} = 0.00$) and regulatory environment ($B = 0.321$, $t\text{-value} = 4.788$, $p\text{-value} = 0.00$), have a strong positive causal effect on the performance of SMEs in Malaysia. On the other hand, the result further showed that competitive environment ($B = -0.173$, $t\text{-value} = 3.261$, $p\text{-value} = 0.00$) and economic environment ($B = -0.283$, $t\text{-value} = 5.334$, $p\text{-value} = 0.00$) have a strong negative causal effect on SMEs’ performance in Malaysia. Therefore, H1, H2, H3, H4 and H5 were supported at less than 0.01 significance level; and statistically, the effect of financial market environment, technological environment, economic environment, competitive environment and regulatory environment on SMEs’ performance in Malaysia is established.

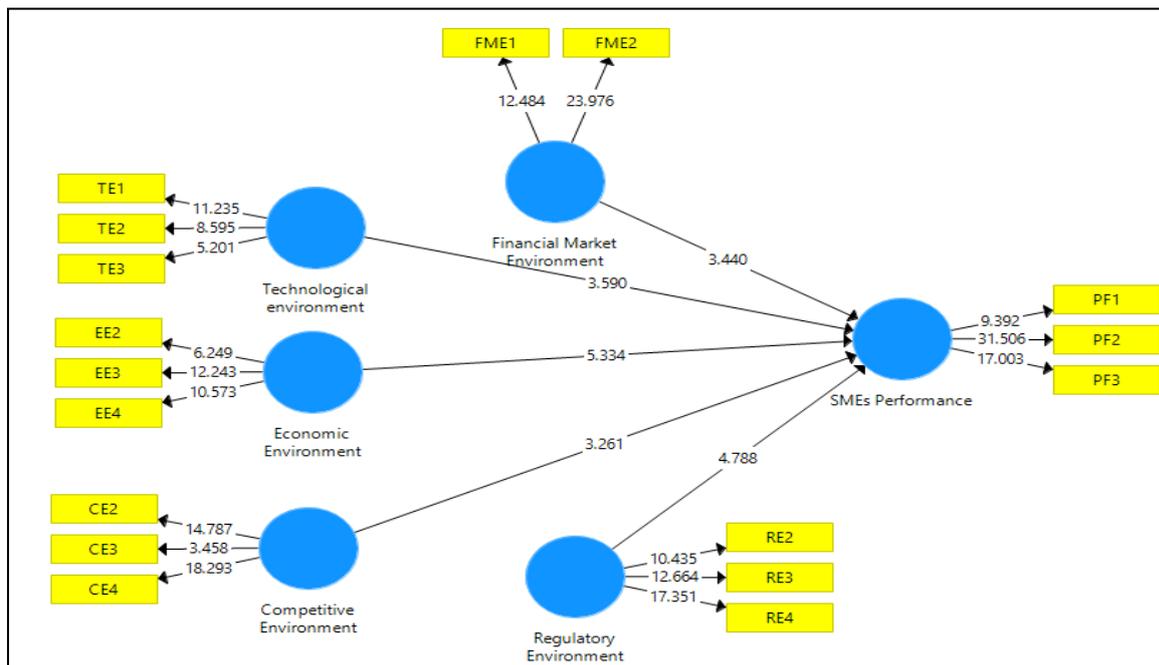


Figure 6: Structural Model Assessment

In addition, Table 3 showed that the causal effect of regulatory environment on SMEs’ performance, and economic environment on SMEs’ performance is highly substantial with f square values of 0.208 and 0.164. While, the causal effect of technological environment on SMEs’ performance is moderate, with f square value of 0.103. Nevertheless, the result showed that both causal effect of financial market environment on SMEs’ performance, and

competitive environment on SMEs' performance is minor, with f square values of 0.090 and 0.059.

Table 3: Path Coefficients, Effect Size and Coefficient of Determination

	Beta	Standardized Beta	T Values	P Values	f Square	R Square
Competitive Environment -> SMEs Performance	-0.173	0.053	3.261	0.001	0.059	0.529
Economic Environment -> SMEs Performance	-0.283	0.053	5.334	0.000	0.164	
Financial Market Environment -> SMEs Performance	0.248	0.072	3.440	0.000	0.090	
Regulatory Environment -> SMEs Performance	0.321	0.067	4.788	0.000	0.208	
Technological environment -> SMEs Performance	0.255	0.071	3.590	0.000	0.103	

DISCUSSION & CONCLUSION

This research examines the effect of serene business environment on SMEs' performance in Malaysia. Hence, this research is one of the few that investigated the effect of financial market environment, technological environment, economic environment, competitive environment and regulatory environment on performance of SMEs. In establishing causal effect of serene business environment on SMEs' performance in Malaysia, the study presumed that – financial market environment, technological environment, economic environment, competitive environment and regulatory environment exert significant effect on SMEs' performance. From the research outcome, it was found that financial market environment has significant effect on SMEs' performance. Similarly, technological environment was found to have a significant effect on SMEs' performance. Moreover, it is established that economic environment has significant effect on SMEs' performance, and that both competitive environment and regulatory environment exert significant effect on SMEs' performance. Interestingly, the current findings corroborate prior researches that established the effect of financial market environment (Cheong et al., 2020; Chaudhuri et al., 2018; Brau et al., 2015), technological environment (Hamdan et al., 2018; Sitharam & Hoque, 2016), economic environment (Meyer, 2019; Dragnić, 2014; Adeoye & Elegunde, 2012), competitive environment (Prajogo, 2016; Mat Isa et al., 2015) and regulatory environment (Meyer, 2019; Leonidou et al., 2015), on performance of SMEs (measured in terms of liquidity, productivity, growth and profitability).

The current findings implied that serene business environment is very crucial for performance of SMEs. Suggesting that accessibility to (external and internal) funds to finance future growth/investment, accessibility to (new or upgraded) technology to improve production process/service delivery and sound regulatory framework are important for SMEs seeking opportunity to increase customer satisfaction/ customer base, market share, sales and profitability level. On the other hand, the negative relationship of economic and competitive environment on performance, implied that it is not every economic policy that is important for SMEs and can stimulate growth. Equally, the findings implied that certain activities of competitors may be detrimental to the survival and growth of other enterprises, especially in industry with high level of competitive rivalry. Accordingly, it is recommended that managers of SMEs fully appreciate the business environment, as a mechanism to boost performance level

(increase in customer base, market share, sales and profit margin). Similarly, it is recommended that Malaysian government through relevant agencies should continue to create and sustain a serene business environment by supporting the SMEs in terms of funding, acquisition of latest technology, good policies and programs and regulatory framework, as a prerequisite for SMEs to increase productivity and achieve corporate objectives.

References

- Adeoye, A. O., & Elegunde, A. F. (2012). Impacts of external business environment on organizational performance in the food and beverage industry in Nigeria. *British Journal of Arts and Social Sciences*, 6(2), 194-201.
- Aldrich, H. (1979). *Fundamental as Moderate of Job Satisfaction*, New York; Random House Incorporation.
- Aterido, Reyes, Mary Hallward-Driemeier, & Carmen Pages, (2009). Big Constraints to Small Firms' Growth? Business Environment and Employment Growth across Firms. The World Bank Policy Research Working Paper no. 5032.
- Atsegbua, K. (2002). *Changing Organization: Essays on the Development and Evolution of Human Organization*, New York: McGraw-Hill Company.
- Aziz, N. A., & Yassin, N. M. (2010). How will market orientation and external environment influence the performance among SMEs in the agro-food sector in Malaysia. *International Business Research*, 3(3), 154-164.
- Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74-94. doi:10.1007/bf02723327.
- Bah, E. H., & Fang, L. (2015). Impact of the business environment on output and productivity in Africa. *Journal of Development Economics*, 114, 159-171.
- Banerjee, A.V. & Duflo, E. (2010). "Giving credit where it is due", *The Journal of Economic Perspectives*, 24 (3), 61-80, DOI: 10.1257/jep.24.3.61.
- Berger, A.N. & Udell, G.F. (2006). "A more complete conceptual framework for SME finance", *Journal of Banking and Finance*, 30 (11), 2945-2966.
- Brau, J.C., Cardell, S.N. & Woodworth, W.P. (2015). "Does microfinance fill the funding gap for microentrepreneurs? A conceptual analysis of entrepreneurship seeding in impoverished nations", *International Business Research*, 8 (5), 30.
- Chadee, Doren & Roxas, Banjo (2013). Institutional environment, innovation capacity and firm performance in Russia, *Critical perspectives on international business*, 9 (1/2), 19-39.
- Chaudhuri, A., Boer, H. & Taran, Y. (2018). "Supply chain integration, risk management and manufacturing flexibility", *International Journal of Operations and Production Management*, 38 (3), 690-712.
- Chen, Y., Wang, Y., Nevo, S., Jin, J., Wang, L., & Chow, W. S. (2014). IT capability and organizational performance: the roles of business process agility and environmental factors. *European Journal of Information Systems*, 23(3), 326-342.
- Cheong, C. W., Lee, M. H., & Weissmann, M. A. (2020). Credit access, tax structure and the performance of Malaysian manufacturing SMEs. *International Journal of Managerial Finance*.
- Commander, S., & Svejnar, J. (2011). Business environment, exports, ownership, and firm performance. *The Review of Economics and Statistics*, 93(1), 309-337.
- De, P.K. & Nagaraj, P. (2014). "Productivity and firm size in India", *Small Business Economics*, 42 (4), 891-907.

- Deng, X. and Low, S.P. (2014). Exploring critical variables that affect political risk level in international construction projects: Case study from Chinese contractors. *Journal of Professional Issues in Engineering Education and Practice*, 2(1): 1–11.
- Dragnić, D. (2014). Impact of internal and external factors on the performance of fast-growing small and medium businesses. *Management-Journal of Contemporary Management Issues*, 19(1), 119-159.
- Eruemegbe, G. O. (2015). Impact of business environment on organization performance in Nigeria a study of union bank of Nigeria. *European Scientific Journal*.
- Fang, N., Yuli, Z. & Hongzhi, X. (2009). Acquisition of resources, formal organization and entrepreneurial orientation of new ventures, *Journal of Chinese Entrepreneurship*, 1 (1), 40-52.
- Fu, X. (2020). *Research on the Survival Strategy of SMEs under COVID-19--Based on the Perspective of Organizational Resilience*. In Fifth International Conference on Economic and Business Management (FEBM 2020) (pp. 603-606). Atlantis Press.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, 40(3), 414-433.
- Hamdan, A. R., Fathi, M. S., & Mohamed, Z. (2018). Evolution of Malaysia's technology transfer model facilitated by national policies. *International Journal of Engineering & Technology*, 7(2.29), 196-202.
- Haron, R., & Ibrahim, K. (2016). Islamic financing in mitigating access to financing problems of SMEs in Malaysia: a survey analysis. *Intellectual Discourse*, 24.
- Harrison, F. (1996). *Policy, Strategic and Managerial Action*, Boston; Houghton Mifflin.
- Hosamane, M.D. & Alroaia, Y.V. (2009). "Entrepreneurship and development of small-scale industries in Iran: strategic management tools and business performance assessment", *The IUP Journal of Entrepreneurship Development*, 6 (1), 27.
- Isa, C. M. M., Saman, H. M., & Preece, C. N. (2015). Determining significant factors influencing Malaysian construction business performance in international markets. *Journal of Construction in Developing Countries*, 20(2), 1.
- Koen, V. et al. (2017). Malaysia's economic success story and challenges, OECD Economics Department Working Papers, No. 1369, OECD Publishing, Paris. <http://dx.doi.org/10.1787/cf7fddf2-en>.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Lee, K., Wong, C. Y., Intarakumnerd, P., & Limapornvanich, C. (2020). Is the Fourth Industrial Revolution a window of opportunity for upgrading or reinforcing the middle-income trap? Asian model of development in Southeast Asia. *Journal of Economic Policy Reform*, 23(4), 408-425.
- Leonidou, LC, Christodoulides, P, Kyrgidou, LP & Palihawadana, D. (2015). Internal Drivers and Performance Consequences of Small Firm Green Business Strategy: The Moderating Role of External Forces. *Journal of Business Ethics*. ISSN 0167-4544
- Madrid-Guijarro, A., Garcia, D. & Van Auken, H. (2009). "Barriers to innovation among Spanish manufacturing SMEs", *Journal of Small Business Management*, 47 (4), 465-488.
- Makorere, R. (2014). The role of microfinance in promoting small and medium enterprises (SMEs) in Tanzania: empirical evidence from SMEs holder who have received microcredit from financial institutions in Morogoro, Tanzania. *Global Business and Economics Research Journal*, 3(4).
- Marinova, S., Child, J., & Marinov, M. (2012). "Institutional field of outward foreign direct investment: a theoretical extension?", in Tihanyi, L., Devinney, T., Pedersen, T. (Eds),

- Institutional Theory in International Business and Management, in *Advances in International Management*, 25, 233-61.
- Mazanai, M. & Fatoki, O. (2012). Access to Finance in the SME Sector: A South African Perspective, *Asian Journal of Business Management*, 4 (1), 58-67.
- Meyer, D. F. (2019). An Analysis of the Causal Relationships between Economic Development, Good Governance and Political Stability in Malaysia. *International Journal of Innovation, Creativity, and Change*, 5(2), 639-657.
- Nadyan, A. F., Selvia, E., & Fauzan, S. (2021). The Survival Strategies of Micro, Small and Medium Enterprises in The New Normal Era. *Dinamika Ekonomi*, 12(2), 142-149.
- Naradda Gamage, S. K., Ekanayake, E. M. S., Abeyrathne, G. A. K. N. J., Prasanna, R. P. I. R., Jayasundara, J. M. S. B., & Rajapakshe, P. S. K. (2020). A review of global challenges and survival strategies of small and medium enterprises (SMEs). *Economies*, 8(4), 79.
- Njagi, L., & Kombo, H. (2014). Effect of strategy implementation on performance of commercial banks in Kenya. *European Journal of business and management*, 6(13), 62-67.
- Ola, C. (1993). *Nigerian Business Environment*: Lagos; Published by Abiola Bookshop Limited.
- Oyebanji, J. (1994). *Nigerian Business Environment and Organization Effectiveness*; Abiola Bookshop Limited.
- Prajogo, D. I. (2016). The strategic fit between innovation strategies and business environment in delivering business performance. *International journal of production Economics*, 171, 241-249.
- Rasiah, R., Y.-X. Shan, & K. Salih. (2017). "Sub-National Governments and Technological Upgrading in the Integrated Circuit Cluster in Northern Malaysia." *Innovation and Development* 7 (2): 287–307. doi:10.1080/2157930X.2016.1261760.
- Raza, H., Mohiuddin, Z. A., Zaidi, S. S. Z., & Osama, A. (2018). CPEC: Pakistan-China Cordial Ties-A Boost to Pakistan's Economy. *Journal of Accounting, Business and Finance Research*, 2(1), 1-6.
- Salikin, N., Ab Wahab, N., & Muhammad, I. (2014). Strengths and weaknesses among Malaysian SMEs: Financial management perspectives. *Procedia-Social and Behavioral Sciences*, 129, 334-340.
- Sana, A. K., Poddar, S., & Paul, B. (2020). Contribution of Small and Medium Enterprises (SMEs) Towards Malaysian Economic Growth: An Empirical Study. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 4(2), 18-27.
- Sitharam, S., & Hoque, M. (2016). Factors affecting the performance of small and medium enterprises in KwaZulu-Natal, South Africa. *Problems and perspectives in Management*, 14(2), 277-288.
- Takata, H. (2016). Effects of industry forces, market orientation, and marketing capabilities on business performance: An empirical analysis of Japanese manufacturers from 2009 to 2011. *Journal of Business Research*, 69(12), 5611-5619.
- Thiruchelvam, K., B. K. Ng, & C. Y. Wong. (2013). "An Overview of Malaysia's National Innovation System." In *Innovation Systems in Southeast Asia*, edited by A. Ratanawaraha, P. A. Chairatana, and W. W. Ellis, 53–88. Bangkok: Chulalongkorn University Press.
- WEO (2020). *World Economic Outlook*. Washington, DC: International Monetary Fund.
- Yayla, A. A., & Hu, Q. (2012). The impact of IT-business strategic alignment on firm performance in a developing country setting: exploring moderating roles of environmental uncertainty and strategic orientation. *European Journal of Information Systems*, 21(4), 373-387.

Zhang, S.S., van Doorn, J. & Leeflang, P. S. (2014). Does the importance of value, brand and relationship equity for customer loyalty differ between Eastern and Western cultures? *International business review*, 23 (1), 284-292.

Factors Influence To Occupational Stress Among Occupational Therapist

Mohd Rasul MOHAMMAD NOOR¹, Mohd Faizal MOHD ISA², Mazrina OSMAN³

^{1,2,3}School of Business Management,
Universiti Utara Malaysia

Abstract

Occupational stress is a global phenomenon that occurs around the world which affects the employee well-being and job performance. It is happened based on work activities at the work place especially when the employee need to perform their job in discomfort situation. In related to that, this study aims to examine the relationship between anxiety regarding infection control and discomfort caused by personal protective equipment (PPE) towards occupational stress among occupational therapist. This research is a cross sectional study and utilized quantitative research approach. For data collection purposes, 147 occupational therapist was involved. However, after data screening, only 103 data have been used for the analysis using Statistical Package for Social Sciences (IBM SPSS Statistics 26.0). Correlation analysis shown that very weak positive correlation between anxiety regarding infection control and discomfort caused by personal protective equipment (PPE) towards occupational stress.

Keywords: Occupational Stress, Anxiety Regarding Infection Control, Personal Protective Equipment (PPE), Occupational Therapist.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: md.rasul@uum.edu.my

Introduction

Occupational stress is a worldwide phenomenon that impacts the health, performance, and overall well-being of employees (Babatunde Oluwatoyin Akanji, 2013). According to Colligan and Higgins (2005), occupational stress is a complex scientific notion intimately tied to the primary idea of stress. Occupational stress is a condition of mental stress that is closely linked to a person's job or work especially to uncomfortable working environment and facilities. Occupational stress is a problem for both employees and employers because stressful jobs or work conditions can lead to diseases, disorders, disobedience at work, and not doing what supposed to be done. It is usually thought of as a transitional stage in which the way each person thinks about the stressors at work leads to bad health and bad behavior (Bakker & Heuven, 2006). This stress is caused by a "toxic" work environment with little control, a lot of work to do, not enough information, a lot of pressure, and not much room to make decisions. A good environment at work will help prevent stress and lower its level, while a bad atmosphere at work will cause occupational stress (James & Demetria, 2016).

In 2016, the World Health Organization and the International Labour Organization did a groundbreaking study and found that long hours working are the most certain cause of occupational risk factors. According to the government statistics in joint research by the global public health and employment bodies, heart disease and stroke are responsible for the deaths of an estimated 745,000 workers annually. Work stress can also be seen as a reaction that happens when a worker's skills, resources, environment, and needs don't match up with the demands and conditions of the job (Patel et al. 2021).

According to Matteson and Ivancevich (1987), stress-related disorders cost employers \$60 billion annually. Work stress causes physical, mental, and emotional sickness (Kamaldeep et al. 2016). Workplace stress can be caused by a variety of job stresses and manifests itself when employees struggle to meet their duties, tasks, or other work-related pressures. or be concerned about this. Workplace stress can lead to physical and mental health problems. High stress and depletion can cause headaches, musculoskeletal illnesses, and heart disease (Cox & Jackson, 2005), as well as worry and unhappiness (Fernandes & Da Rocha, 2009).

Work stress is an individual's reaction to work expectations and pressures. It is increasingly becoming the subject of research and receiving increasing attention from institutional and health international authorities, such as the European Agency for Safety and Health at Work, which published a significant paper on workplace stress.

Why is this professional stress significant to our everyday lives as employees or employers? Occupational stress is sometimes mistaken with occupational difficulty. However, these two concepts are distinct. Occupational challenge energizes us psychologically and physically and drives us to master our work and acquire new abilities. As an employee or employer, when a problem is overcome, we feel relieved and fulfilled. In the meanwhile, occupational challenge is a key component of healthy and effective employment. When people say "a little amount of stress is good for you," they likely have in mind the significance of job challenge in our professional life.

The healthcare profession will always be exposed to considerable occupational stress, while having little resources for stress treatment. For a variety of reasons, occupational stress has emerged as a significant area of study for the majority of health experts today. Occupational stress is primarily subjective in nature, and not an objective phenomenon. It requires the

employee to actively interpret his or her objective conditions (Malikeh & Rahele, 2013).

Occupational stress has direct effects on a person's emotions, thinking process, and physical health (Jayashree, 2010). In reality, Employees at lower levels of organizational structure experience significantly higher stress, who exert less influence over their workplace. Recent research has focused on occupational stress in many professions, including nurses, doctors, police officers, teachers, and academics (Plattner & Mberengwa, 2010).

Occupational stress will give some impact to individual employee and organization. Individual strains fall into three subgroups such as low job satisfaction, demoralization, less organizational commitment, lowered general quality of work life, absenteeism, return on investment, intention to quit the job, low performance, reduced quality and volume of output, inability to make wise choices, and an increase in theft, sabotage, and work-related accidents. Cessation, burnout, estrangement, and cigarette and alcohol usage. Physiological ailments include high BP and pulse rate, cardiovascular illness, hypertension, diabetes, sleep disruptions, headaches, infections, skin issues, impaired immune system, injuries, and tiredness (Vokic & Bogdanic, 2007).

Now, Covid-19 pandemic has changed employees perceptions, practices and routine at the workplace. The healthcare system faced major changes during the pandemic especially regarding personal protective equipment (PPE). Every healthcare workers need to use personal protective equipment (PPE) properly to protect them against the infection. But, the heat, thirst, and discomfort are the difficulties with PPE. Therefore, these concerns that may cause healthcare workers stress must be analyzed. Occupational stress can potentially result in anxiety, with one of the potential causes being Covid-19 infection. Previous research has demonstrated that pandemics have a detrimental impact on psychological health, which might lead to severe anxiety. Evidence shows that front-line and healthcare personnel immediately involved in sample collection, evaluation, treatment, and care of patients during an epidemic were at a greater risk for experiencing psychological distress, occupational stress, and mental health symptoms. Past study also demonstrated rapid psychological effects among front-line healthcare professionals, including worry, discomfort, despair, and fear of infecting family members and coworkers. All of these characteristics were strongly associated with occupational stress. Stress is connected with poor individual performance in the workplace (Smith, 2000) and is a key hindrance to the success of organizations (Noblet, 2003).

Generally, this study aims to examine the factors influence to occupational stress among occupational therapist. Therefore, the following research objectives were formulated:

- 1) To examine the relationship between anxiety regarding infection control and occupational stress.
- 2) To examine the relationship between discomfort caused by personal protective equipment and occupational stress.

Occupational stress

Occupational stress is subjective in definition. It can be generated by a number of factors or by a single factor. It might have ramifications for both companies and employees. Occupational stress is a mental and physical condition that can have a negative impact on a person's performance, health, and worker productivity (Comish et al. 1994; Buchanan, Stephens & Long, 2001)). Some environmental circumstances (stressors) that the individual interprets (cognitive interpretation) may result in stress (Jagdish, 1994).

Referring to Covid-19 pandemic in late December 2019, Malaysia's healthcare system react quickly and become more prepared for COVID-19 pandemic. All the screening and monitoring measures of the virus were enhanced. And, the Malaysia government also announce the standard operation procedures (SOP) to the public. On January 24, 2020, the first incident was identified, and on March 18, 2020, the Restriction of Movement Order (RMO) was implemented. As of December 16, 2020, 86,618 cases and 422 fatalities had been reported across the country. Healthcare Workers (HCW) continue to assist the nation in a variety of positions, including surveillance, monitoring, diagnosis, and treatment, as the number of confirmed cases rises (Ang et al. 2020).

So, the Covid-19 Pandemic has created the occupational stress among employees especially to healthcare workers. It become more stressful because the pandemic occurs more than a year. The healthcare workers use the PPE everyday to protect themselves from infection of Covid-19. However, they still feel anxiety towards infection of the virus. Besides, healthcare workers need to be patient about discomfort feeling and situations caused by the PPE.

Anxiety regarding infection control

Infectious illnesses remain a primary cause of death and morbidity in the 21st century due to new or re-emerging pathogens, offering the greatest challenge to infection management. The WHO issued a Public Health Emergency for SARS-CoV2 in January 2020. (COVID-19). In March 2020, the WHO declared the epidemic a pandemic, with 3.4% global fatalities. Fear, worry, and panic can induce stress, especially among healthcare workers, when the world's population is threatened. Long shifts, a lack of PPE, and the fear of infecting their families and self-exposure and illness stress out health professionals (Amal et al., 2020). Confidence in disease transmission and infection protection strategies, news sources, HCP emotions (fear and dread), and infection prevention actions including hand hygiene (Anucha et al., 2020). During infectious outbreaks, it's important to maximize this population's compliance with infection prevention and control procedures to ensure their safety, minimize the chance of infection and major sequel, and ease their fear and health concern (Jehan et al., 2021).

Without vaccines, the virus's high transmissibility strains healthcare workers (HCW). Infection risk from patient care is significant, and there is a scarcity of PPE. Healthcare professionals worry about transferring the illness to their families and wrestle with guilt over their patients and families. 57% of healthcare personnel were stressed during the 2003 SARS epidemic. Due to COVID-19, Chinese healthcare personnel are more worried than the general population. 42.5 percent of Thai HCW reported anxiety. 64.7, 51.6, and 41.2% of Turkish HCW showed melancholy, worry, and tension, respectively (Javier et al. 2021).

The pandemic has contributed to the prevalence of fear, anxiety, stigma, prejudice, and marginality related to the disease and its impact on all people, from healthy people to those at risk to care professionals. Mass quarantine can cause isolation. Hospital and isolation unit staff hysteria, panic, and anxiety (HCWs). Frontline healthcare personnel have direct contact with corona-virus patients. Their workload, infection risk, and mental health difficulties are higher (Wang D et al. 2020). The COVID-19 pandemic has caused HCWs anxiety, fear, severe anxiety, post-traumatic stress symptoms, psychological discomfort, stigma, avoidance of interaction, depression, sleep difficulties, hopelessness, alienation and isolation from family and social support, and fears about their relatives being infected. Despite the frequency of mental health illnesses and psycho-social difficulties among HCWs, most don't seek mental

healthcare (Zheng W. 2020).

Discomfort caused by personal protective equipment (ppe)

The severe acute respiratory syndrome–coronavirus 2 outbreak soon generated the new coronavirus disease 2019 (COVID-19) pandemic, virtually threatening the collapse of several healthcare systems throughout the world. The health community relies on PPE to prevent the spread of viral infections among healthcare workers and between them. Health care workers (HCWs) and patients must use PPE effectively to prevent illness spread (Livingston et al., 2020). Without proper PPE, health care workers can easily infected with the virus especially who works in high-duty departments, like the emergency department. According to the Chinese Center for Disease Control and Prevention, healthcare workers' most common concerns are misty eye protection and difficulty breathing via masks.

Research Methodology

This research utilized quantitative research approach. The study's design and context comprised of a cross-sectional analysis among 147 occupational therapist. However, after data screening, only 103 data have been used for the analysis using Statistical Package for Social Sciences (IBM SPSS Statistics 26.0). For data collection, occupational therapists' stress levels were assessed using an online self-administered questionnaire. Anxiety regarding infection control and discomfort caused by PPE were all scales used in this study.

For this study, research framework illustrate the relationship of independent variables (IVs) (anxiety regarding infection control and discomfort caused by PPE that give effect towards occupational stress. Dependent variable (DV) is occupational stress among occupational therapist.

Findings and Discussion

The instrument's reliability relates to the consistency of the instrument's design (Creswell, 2010). Alpha Cronbach represents the reliability degree of the instrument (Creswell, 2010). According to Pallant (2001), an Alpha Cronbach score above 0.6 is regarded as a reliable and appropriate index (Nunnally and Bernstein, 1994). The reliability for occupational stress is 0.731, anxiety regarding infection control is 0.671 and discomfort caused by PPE is 0.673. The result explained that high reliability and acceptable for the research instrument.

In relation to that, researcher performed the correlation analysis between the variables to explore the relationship between them. The relationship between variables explained by inter-correlation analysis as shown in **Table 1**.

Table 1:
Correlation Analysis

	Occupational Stress	Anxiety Regarding Infection Control	Discomfort Caused By Personal Protective Equipment (PPE)
Occupational Stress	1	0.106	0.139
Anxiety Regarding Infection Control	0.106	1	0.160
Discomfort Caused By Personal Protective Equipment (PPE)	0.139	0.160	1

Based on **Tables 1**, the inter-correlation analysis results indicates a very weak and positive correlation between occupational stress and anxiety regarding infection control ($r = 0.106$) while the correlation is weak and positive correlation between occupational stress and discomfort caused by personal protective equipment (PPE) ($r = 0.139$).

Researcher also performed the regression analysis to examine which of the independence variables have most influence to occupational stress. As shown in **Table 2**, 0.7% ($R^2 = 0.026$, $F = 1.359$, $p > 0.01$) of the variance in occupational stress was significantly explained by anxiety regarding infection control and discomfort caused by PPE. In the model, anxiety regarding infection control factor ($\beta = 0.086$, $p > 0.01$) and discomfort caused by PPE factor ($\beta = 0.125$, $p > 0.01$) was found no significantly positively related to occupational stress. Therefore, both hypotheses was not supported.

Research Objectives No. 1: To examine the relationship between anxiety regarding infection control and occupational stress.

The result shown that the correlation for anxiety regarding infection control is the lowest correlation (0.106) after discomfort caused by PPE (0.139).

The general population of the world experienced relatively high levels of symptoms of depression, ranging from 14.6% to 48.3%, and anxiety symptoms, ranging from 6.33% to 50.9%, according to the findings of three systematic reviews and a multinational meta-analysis conducted during the COVID-19 pandemic. These findings were based on the prevalence of these conditions in the general population. These discoveries were released at the height of the pandemic in which they were discovered.

Table 2:
Regression Analysis

Independent Variable	Dependent Variable (Occupational Stress)		t	Significant (p)	Collinearity Statistics	
	(Standardize coefficient) Beta				Tolerance	VIF
Anxiety regarding infection control	0.086		0.860	0.392	0.974	1.026
Discomfort caused by personal protective equipment (PPE)	0.125		1.251	0.214	0.974	1.026
F Value	1.359					
R ²	0.026					
Adjusted R ²	0.007					

The workers in the health care industry are under a lot of stress, as they have to work long shifts and don't have access to personal protective equipment (PPE). They also live in constant worry that they may infect their families and put themselves at danger for self-exposure and infection (Amal et al., 2020). According to Uthayakumar et al. (2021), the most generally stated symptoms were pain and pruritus, as well as dryness and the related irritation. These sensations, along with pruritus and pain, contributed to feelings of worry. The feeling closely related to anxiety include feeling of nervous, anxious, unable to control worrying, trouble relaxing, restlessness and feeling afraid about something might happen.

Research Objectives No. 2: To examine the relationship between discomfort caused by personal protective equipment (PPE) and occupational stress.

The result shown that the correlation for discomfort caused by PPE is the highest score (0.139) followed by anxiety regarding infection control (0.106). Since occupational therapist was one of the front-linear healthcare workers (HCWs) dealing with patients during the first peak of pandemic, they also exposed to the use and discomfort caused by PPE. The use of PPE include apron, gown, mask, glove and face shields.

Occupational therapists are versatile and flexible (Thorner, 1991), which could safeguard them during the COVID-19 pandemic. The COVID-19 epidemic has affected Occupational Therapy services in Malaysia from March 2020 since occupational therapist have to work at hospital or clinic setting, not working from home to delivered the services. Most health and medical services have modified their delivery systems to satisfy client requests and support government efforts.

Appointment system, healthcare procedures, and service accessibility are altered. Occupational therapists' roles and responsibilities were altered to fulfil client requirements and avoid disease spread. Due to the pandemic, infection control techniques such as personal protective equipment (PPE) and hand hygiene have been adopted. Work practices during the pandemic have been changed to conform with new rules SOP during COVID-19.

Occupational therapists using PPE during a pandemic may experience unpleasant skin reactions. Uthayakumar et al. (2021) found moderate eczema in 91% of nurses, doctors, pharmacists, radiographers, administrative, physiotherapy, and laboratory technicians. Hand eczema is a stress- related occupational illness.

According to Purushothaman et al. (2021), continuous use of face masks causes HCWs to have difficulties breathing and significant mouth sweating. 96% of nasal bridges and 30% of ears react negatively. Redness, blanching, itching, and pressure injury were the most prevalent skin reactions. Abiakam et al. (2021) found that PPE causes skin responses on HCWs' faces. The lack of a cure for COVID-19 makes preventive measures such as wearing masks vital to reduce and prevent transmission. Prolonged mask exposure may increase allergic contact dermatitis. The prevalence and features of discomfort produced by PPE.

Conclusion

The aim of this study was to investigate factors that might influence occupational stress and to determine which factors that have most influence to occupational stress. The main concern factors is anxiety regarding infection control and discomfort caused by PPE. The findings showed that there is no significant relationship between anxiety regarding infection control and discomfort caused by PPE with occupational stress among occupational therapist. Between this two concern factors, this study found that discomfort caused by PPE was the most influence factor to occupational stress.

The findings indicate that there is a need for more conducive study regarding discomfort caused by PPE in order to reduce occupational stress among occupational therapist. At the same time, employees also need to be given the opportunity to actively engage with the management to use the PPE while working. It is hoped that through the examination of the anxiety regarding infection control and discomfort caused by PPE in predicting occupational stress, a more complete understanding of the influence factors will be achieved.

References

- Anucha, A., Apisarnthanarak, P., Siripraparat, C., Saengaram, P., Leeprechanon, N. & Weber, D.J. (2020). Impact of anxiety and fear for COVID-19 toward infection control practices among Thai healthcare workers <https://doi.org/10.1017/ice.2020.280>
- Babatunde, O. A. (2013). Occupational Stress: A Review on Conceptualisations, Causes and Cure. https://www.researchgate.net/publication/258668616_Occupational_Stress_A_Review_on
- Bakker, A.B. and Heuven, E. (2006). Emotional dissonance, burnout, and in-role performance among nurses and police officers. *International Journal of Stress Management*, Vol. 13 No. 4, pp. 423-440.
- Beheshtifar, M. and Nazarian, R. (2011). Role of Occupational Stress in organizations.
- Buchanan, G., Stephens, C. and Long, N. (2001). Traumatic events of new recruits and serving police. *Australasian Journal of Disaster and Trauma Studies* 5(2).
- Colligan, T.W. & Higgins, E.M. (2005). Workplace Stress Etiology and Consequences, 89-97
- Cooper, C.L. & Hart, P.M. (2001). Occupational Stress: Toward a More Integrated Framework.
- Cooper, C.L., Dewe, P.J., O'Driscoll, M.P., (2001). Organizational stress: A review and critique of theory, research, and applications
- Cox, T., Tisserand, M., & Taris, T. (2005). Editorial: The conceptualization and measurement of burnout: Questions and directions. *Work & Stress*, 19(3), 187–191. <https://doi.org/10.1080/02678370500387109>
- Fernandes, M.H. & Rocha, V.M. (2009). Impact of the psychosocial aspects of work on the quality of life of teachers, 31(1):15-20. <https://doi.org/10.1590/S1516-44462009000100005>
- James, C.Q. and Demetria, F. H. (2016). Occupational Stress: Preventing Suffering, Enhancing Wellbeing. *International Journal of Environmental Research and Public Health*. USA, 13 (459)
- Jan Alexander Hausser, J.A., Mojzisch, A., Niesel, M. & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the Job Demand–Control (-Support) model and psychological well-being, 1-35.
- Javier, C.F., Deborah O. O., Loeurt, T. & Ishaq, A. (2021). Cross-cultural impacts of COVID-19 on higher education learning and teaching practices in Spain, Oman, Nigeria and Cambodia: A cross-cultural study
- Jayashree, R. (2010). Stress Management with Special Reference to Public Sector Bank Employees in Chennai. *International Journal of Enterprise and Innovation Management Studies*, 1, 34-35.
- Jehan, S.A., Nada, M., Nass, N., Abdulaziz, K. & A Hassoubah, S. (2021). Levels and predictors of fear and health anxiety during the current outbreak of COVID-19 in immunocompromised and chronic disease patients in Saudi Arabia: A cross-sectional correlational study <https://doi.org/10.1371/journal.pone.0250554>
- Jennifer, C. & Yana, V.D.M.R. (2020). Contributing factors to personal protective equipment shortages during the COVID-19 pandemic <https://doi.org/10.1016/j.yjmed.2020.106263>
- Johnson, J.V., & Hall, E.M. (1988). Job strain, work place social support, and cardiovascular disease: a cross-sectional study of a random sample of the Swedish working population. <https://doi.org/10.2105/ajph.78.10.1336>
- Kamaldeep, B., Dinos, S., Galant-Miecznikowska, M., Jongh, B.D. & Stansfeld, S. (2016). Work stress causes physical, mental, and emotional sickness.

- Karasek, R.A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign, 285-308.
- McCormick, J. (1997). Occupational stress of teachers: biographical differences in a large school system.
- Malikeh, M. & Rahele, M (2013). Role of Occupational Stress in organizations.
- Matteson, M. T., & Ivancevich, J. M. (1987). Controlling work stress: Effective human resource and management strategies. Jossey-Bass.
- Noblet, A. (2003). Building health promoting work settings: Identifying the relationship between work characteristics and occupational stress in Australia. *Health Promotion International*, 18, 351-359.
- Nunnally, J.C. & Bernstein, I.H. (1994) *The Assessment of Reliability. Psychometric Theory*, 3, 248-292.
- Patel, B.R., 1, Khanpara, B.G., Mehta, P., Patel, K.D., Marvania, N.P. (2021). Evaluation of perceived social stigma and burnout, among health-care workers working in covid-19 designated hospital of India: A cross-sectional study. https://doi.org/10.4103/shb.shb_54_21
- Patel, S.R., T. Croghan, I.T., Chesak, S.S., Adusumalli, J., Fischer, K.M., Beck, E.W., Ghosh, K., Schroeder, D.R., Bhagra, A. (2021). Stress, Resilience, and Coping of Healthcare Workers during the COVID-19 Pandemic <https://doi.org/10.1177/21501327211008448>
- Plattner, I.E & Mberengwa, D.S. (2010). "We are the forgotten ones" : occupational stress among university secretaries in Botswana.
- Purushothaman, P.K., Priyanga, E. & Vaidhyswaran, R. (2021) Effects of Prolonged Use of Facemask on Healthcare Workers in Tertiary Care Hospital During COVID-19 Pandemic <https://doi.org/10.1007/s12070-020-02124-0>
- Thorner, S. (1991) *The Essential Skills of an Occupational Therapist* <https://doi.org/10.1177/030802269105400606>
- Van Der Doef, M., & Maes, S. (1999). The Job Demand-Control (-Support) Model and Psychological Well-Being: A Review of 20 Years of Empirical Research. *Work & Stress*, 13, 87-114. <http://dx.doi.org/10.1080/026783799296084>
- Vokic, N.P & Bogdanic, A. (2007). Individual differences and occupational stress perceived: a Croatian survey
- Wang, D., Hu, B., Hu,C., Zhu, F., Liu, X., Zhang, Z., Wang, B., Xiang, H., Cheng, Z., Xiong, Y., Zhao, Y., Li, Y., Wang, X. & Peng, Z. (2020). Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus–Infected Pneumonia in Wuhan, China <https://doi.org/10.1001/jama.2020.1585>
- World Health Organization (2021). WHO/ILO: Almost 2 million people die from work-related causes each year. <https://www.who.int/news/item/16-09-2021-who-ilo-almost-2-million-people-die-from-work-related-causes-each-year>
- World Health Organization / International Labor Organization Joint Estimates of the Work-related Burden of Disease and Injury, 2000- 2016: Global Monitoring Report. <https://www.who.int/news/item/16-09-2021-who-ilo-almost-2-million-people-die-from-work-related-causes-each-year>
- Yahaya,A. (2010). The Effects of Various Modes of Absenteeism Problem in School on the Academic Performance of Students in Secondary Schools

**A FEASIBILITY STUDY ON AQUACULTURE ENTREPRENEURSHIP ACTIVITY:
MUSSELS FARMING COMMUNITY ENGAGEMENT
IN TANGKAK AND MERLIMAU AREA**

Shahrina Othman¹, Muhamad Ali Imran KAMARUDIN², Azahari RAMLI³, and Mohd
Salahudin SHAMSUDIN⁴

^{1,2,3,4}*University Utara Malaysia*

Abstract. This paper describes the socio-economic initiative of the community through the aquaculture entrepreneurship activity of mussels farming. The purpose of this study is to discover the aquaculture entrepreneurship activities and to identify the challenges and issues associated to mussels farming at the targeted area. The target community has extensive experiences and skills in aquaculture and working closely with respective agencies to seek opportunity for current survival and future development. Results from the interviews and observations were found useful in suggesting mussel-based product innovation to other community for entrepreneurial activities and socio-economic sustainability in aquaculture industry. Therefore, the study recommends the importance of offering economic as well as social values through agency or community entrepreneurial enterprises to generate income besides to enable community engagement.

Keywords: Aquaculture Entrepreneurship Activity, Mussels Farming, Community Engagement.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: shahrina@uum.edu.my

Introduction

Aquaculture in Malaysia includes both food-related (freshwater fish, seaweed, and brackish water fish) and non-food-related (ornamental fish and aquatic plants) goods. If the farmer has the necessary natural resources, strong management skills, and financial means to invest in the business, aquaculture can be financially and economically successful. Depending on the suitability and potential of the area, aquaculture operations are spread across the majority of the country. Pond culture for fish and shrimp is practised primarily in the states of Perak, Selangor, Kedah, Penang, Negeri Sembilan, and Selangor, along the west coast of Peninsular Malaysia. On the east coast of Peninsular Malaysia, pond culture for fish and shrimp is practised in the states of Terengganu and Pahang, as well as in the states of Sabah and Sarawak in the East of Malaysia. Penang, Perak, Kedah, and Johor are the states with the highest concentrations of marine finfish cage culture. Oyster culture and shell mollusc culture are primarily located in the states of Perak and Terengganu, respectively. Johor, Melaka, Negeri Sembilan, Selangor and Perak states produce the majority of the world's green mussels. The roles of aquaculture in Malaysia includes (1) to reduce the gap between demand and supply of food, (2) to lessen pressure on capture fisheries, (3) to generate foreign exchange earnings, (4) to provide employment and career development, (5) to diversify or alternative income to fisherman and farmers and (6) to provide business and investment opportunity.

Malaysia's mussel market is very large. In 2003, around 8000 mt of mussel were supplied to the market (FAO 2005). In addition Malaysia also imported fresh and frozen mussel to fulfil local demand. The demands are from local buyers as well as for export to the neighbouring Singapore. Therefore, it is strongly desirable that mussels be produced locally to meet demand. Entrepreneurship in agriculture is seen as necessary precondition for creating a sustainable rural community especially when the history of mussel imports into nearby nations offers a viable market for mussel farming in the future (Bin Sallih, 2005). Therefore, personal characteristics, knowledge and skills are important elements of entrepreneurship in agriculture for value creation within new or existing agriculture business activities. Different farmers have different skills depending on a wide range of phenomena, ranged from social contexts such as social background, education, personal drive, awareness and ambition.

Methodology

Trends and changes in the environment of the mussel farming sector heavily influence the importance of entrepreneurship in agriculture. Therefore, in the context when farmers have a better perspective of trends and skills than experts and stakeholders, the significance of entrepreneurial skills is investigated by interviewing a number of them in two separate regions. These interviewees were chosen based on their background in the aquacultural industry and their capacity to relate these advances to the viewpoint of the experts and stakeholders.

In the presence of an industry professional who has been appointed to a consultative expert panel for the production of the framework document (OF) MISC Section A03: Fisheries and Aquaculture in 2022, the results of the interviews were categorised and discussed among the team members. The research methodology is empirical, verifiable by observation and experience rather than science, pure logic or theory.

Mussels Farming

The coastal waters of Malaysia are thought to offer significant possibilities for mussel farming (Marzuki, 1998). The cultivation activity began in the Johore Straits on the southern coast of

Peninsular Malaysia mainly because of the availability of natural seed and resources. By getting the seed for transplantation from Johore and Melaka, it expanded to the western coast of Peninsular Malaysia, particularly the state of Melaka where natural spat are abundant. Young mussels captured on polypropylene ropes from areas with natural spat are being transplanted into other regions of Peninsular Malaysia as a result of the establishment of culture systems. This system are from the extensive effort by the Fisheries Research Institutes and government initiatives (Choo, 1979).

Challenges

Issue concerns the function of local markets and the methods by which both prices and consumer preferences are managed. All respondents mentioned how highly competitive the market is and how consumers are getting more sophisticated and increasingly stratified. The apparent labour shortage was a further significant issue that all respondents expressed concern about. This was conveyed not only in terms of labour availability but also in terms of an ageing workforce, a lack of skills, and the attractiveness of the agricultural sector. According Fathi, Harun, Rambat and Tukiran (2018) there are 6 major issues and challenges of the aquaculture sector in Malaysia specifically issues of fish stock depletion, climate changes, current diseases, media influences in the sector, non-compliance feeding practiced and poor interaction between stakeholders. Researchers projected entrepreneurship activities with the consideration of the risks that can impact the viability of aquaculture initiatives. The impact depend on the type of aquaculture risk as shown in Table 1.

Table 1: Risk associated with aquaculture (ISS-Food and Nutrition Security and Sustainable Agricultural Report, European Commission, 2017)

Risks	Impact
Environmental (i.e. pollution)	Risk heightened by poor siting, farm design and management. Some impacts are reversible, but many are long term.
Climate change (i.e. water quality, vulnerability of certain areas)	Risk of loss of activities, jobs and revenues in certain aquaculture areas. Some impacts could be mitigated at local level, but with uncertainty on long-term issues.
Usage of resources	Aquaculture can demand large volumes of fish meal and in some cases, wild juveniles. Can also utilise large areas of land that might have vulnerable dependents.
Food safety (i.e. bacteria, viruses)	Contamination of aquaculture products can impact human health, market confidence and value.

Social and ethical (i.e. poor working conditions, economic opportunities)	Consequences may include brand and reputation damage, heightened regulatory pressure, legal action, consumer boycotts and operational stoppages.
Biosecurity (i.e. parasites)	Disease epidemics, either from imported animals or from poor management can quickly decimate production. Irresponsible use of antibiotics increases local resistance.
Genetic and biodiversity	Genetic ‘pollution’ from introduced species, as well as their habitat/food competition with native species can have profound negative effects on biodiversity and natural productivity.

Community Engagement

A meeting held with the mussel farmer from Kampung Kesang Laut who has been active in farming and culturing mussels for the past 50 years (refer Figure 1). This first meeting took place at Pangkalan Sungai Mati, Tangkak, Johor. The mussel seeding effort is by using a polypropylene ropes and mussels are sold when it starts to grow between 2 to 2.5 inches. The farmer’s estimated mussel yield is as much as 650kg per month for each harvest. Respondent’s mussels are sold fresh in nearby markets and sold directly to trusted harvesters. The activity of selling mussel seeds is carried out especially to breeders from the state of Perak. The mussels are also used as one of the dishes (sambal) in the restaurant run by the respondent family.



Figure 1: The researchers visited the respondent at Pengkalan Kampung Kesang Laut

Interview with respondent at Pangkalan Umbai Merlimau, Malacca was successfully held. Respondents is an active mussel breeder. The participation from the Malaysian Fisheries Development Board (LKIM), Malacca as another respondent, has helped a lot in the process of understanding the mussel farming activities carried out by local fishermen. Mussels are sold fresh around seafood restaurants in addition to the market for quality mussel seeds to farmers from surrounding states including the state of Kedah. Discussion included topics on market,

product innovation, fishermen's activities and suggestions for improving the company and the industry as a whole has gone smoothly. Figure 2 illustrates the meeting session.



Figure 2: The researchers visited the respondents at Pengkalan Umbai and Jasin District Fishermen's Association

Recommendation

There is a strong implication that farmers must be supported in their entrepreneurship endeavours for the industry to succeed. The ability of large and small farms to respond to environmental changes should not be differentiated. Large farmers, according to some respondents, are more business-like since large farmers have the structural and functional capacity. For small farmers, however, have an edge over large farmers since it is generally easier for these farmers to access financing, technology, and markets, according to the Fishermen's Association. Small farmers can respond more quickly. Although it is impossible to tell from our preliminary research whether farmers are truly entrepreneurial, we are able to point out that there is a skills gap in the industry and demonstrate that farmers need to develop skills in the area of business and management, marketing, financial, networking, ecommerce, business planning skills, entrepreneurial qualities and values, with the assistance from respective agencies and organizations.

The researchers suggested that farmer's abilities of collaboration and communication also need to be cultivated. The study discovered an interesting mussel by-product, a snack produced by Nadia Food. The exploration of mussel-based products was carried out in the Muar district where a meeting with the founder of Nadia Food, was successfully held. The company was named after his own daughter, Nadia, who is now involved full-time. The seafood innovation that was introduced with the joint venture of the Muar District Fisheries Office is a snack product called Muruku which is based on clams and mussels. According to the respondent, market penetration activities started with Nadia Food's participation in the Malaysian

Agriculture, Horticulture and Agro Tourism Exhibition (MAHA 2022) in Selangor. Figure 3 illustrates the activities held with the respondent.



Figure 3: The researchers conducted product testing and interview with the respondents

This pilot study suggested bigger challenge for the aquaculture industry that is to enable farmers to develop their entrepreneurial skills. Study indicated that farmers of all types require financial assistance and greater emphasis on necessary education and training. In order to obtain additional value and price security, closer interaction with the food chain will be necessary for further success.

Conclusion

This study has demonstrated how we may start to grasp the complexity of this industry. According to preliminary study, agriculture is not a uniform industry and operates in a complicated, multifaceted context. Which should be the unit of analysis is maybe one of the important problems that will be raised subsequently. The entrepreneurial traits of the farmer and the farm is not easily comprehend. The same family may have owned or operated farms for generations. It has been stated that historically, ownership of a farm and solo responsibility for the success of one's own endeavour have been key factors in determining personal achievement rather than overt financial motivations. Since many farmers are now driven primarily by concerns for their own survival and that of their businesses, the relative safety of the farm business has changed.

Acknowledgements

The authors would like to thank Teraju DPUB2020 for the given opportunity in this research project entitled MUSCLING THE MUSSELS FARMING COMMUNITY PROJECT AT KUALA SUNGAI MUDA, KEDAH specifically, fifth initiative on branding and marketing (So Code: 21262). The authors are grateful for the encouraging participation by the muscle farmers from Kampung Kesang Laut and Umbai area, the Founder of Nadia Food and the General Manager of Jasin District Fishermen's Association for spending their time in sharing

their insights. The authors also wish to convey their appreciation for the research team members including the Director of Aqua North Sdn. Bhd. for their support and contribution in this study.

References

- AhSAN, D. A., & Roth, E. V. A. (2010). Farmers' perceived risks and risk management strategies in an emerging mussel aquaculture industry in Denmark. *Marine Resource Economics*, 25(3), 309-323.
- Anderson, J. L., Asche, F., Garlock, T., & Chu, J. (2017). Aquaculture: Its role in the future of food. In *World agricultural resources and food security*. Emerald Publishing Limited.
- Avdelas, L., Avdic-Mravljje, E., Borges Marques, A. C., Cano, S., Capelle, J. J., Carvalho, N., ... & Asche, F. (2021). The decline of mussel aquaculture in the European Union: Causes, economic impacts and opportunities. *Reviews in Aquaculture*, 13(1), 91-118.
- Bin Sallih, K., & Þórðarson, J. (2005). Mussel farming in the state of Sarawak, Malaysia: A feasibility study. *Fisheries Training Programme Report*, 44.
- Fathi, S., Harun, A. N., Rambat, S., & Tukiran, N. A. (2018). Current issues in aquaculture: lessons from Malaysia. *Advanced Science Letters*, 24(1), 503-505.
- Fleming, A. E. (2015). *Identifying the key social and economic factors for successful engagement in aquaculture ventures by Indigenous communities*. Fisheries Research and Development Corporation.
- Tamburini, E., Turolla, E., Fano, E. A., & Castaldelli, G. (2020). Sustainability of mussel (*Mytilus galloprovincialis*) farming in the Po river delta, northern Italy, based on a life cycle assessment approach. *Sustainability*, 12(9), 3814.
- van den Burg, S. W., Kamermans, P., Blanch, M., Pletsas, D., Poelman, M., Soma, K., & Dalton, G. (2017). Business case for mussel aquaculture in offshore wind farms in the North Sea. *Marine Policy*, 85, 1-7.

[1] Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah DA. Tel.: +60-9284000. Email address: shahrina.othman@uum.edu.my

**PERSEKITARAN, PENDIDIKAN DAN PENGGUNAAN TEKNOLOGI SEMASA
PANDEMIK COVID-19 TERHADAP KESIHATAN MENTAL DALAM
KALANGAN REMAJA DI MALAYSIA: MODEL CADANGAN KAJIAN**

Hadziroh IBRAHIM¹, Md. Lazim MOHD ZAIN², Chandrakantan SUBRAMANIAM³, Edora ISMAIL⁴, Noor Hafiza ZAKARIYA⁵ and Nor Farah Hanis ZAINUN⁶

^{1,2,3,4,5,6}*Universiti Utara Malaysia*

Abstract. Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) mendapati 424,000 kanak-kanak mengalami masalah kesihatan mental dimana sejumlah besar daripada mereka adalah penduduk luar bandar iaitu 8.8 peratus dan B40 sebanyak 9.2 peratus. Ditambah dengan suasana pandemik yang berlaku, kesihatan mental pelajar turut menerima kesan apabila proses pembelajaran dijalankan secara atas talian dengan tempoh yang lama. Umumnya, objektif kajian ini adalah untuk meneroka dan meneliti masalah kesihatan mental dan seterusnya mengenal pasti faktor-faktor yang mempengaruhi kesihatan mental dalam kalangan remaja/pelajar sekolah. Secara khususnya, kajian ini dijalankan untuk mengenalpasti hubungan antara faktor persekitaran, pendidikan, teknologi dan kesihatan mental. Bagi mencapai objektif ini, dua peringkat pengumpulan data akan dijalankan iaitu pengumpulan data kualitatif dan data kuantitatif. Hasil kajian diharap dapat dimanfaatkan, digunapakai dan dijadikan sebagai rujukan oleh pihak kerajaan dan pihak-pihak yang bertanggungjawab bagi menambahbaik dasar yang sedia ada, mengemaskini program perkhidmatan kekeluargaan di masa hadapan, dan merancang program-program yang boleh m. Selain itu, ia juga dapat memberi manfaat kepada semua pihak terutama pihak sekolah dan guru-guru, ibu-bapa dan penyelidik di institusi pendidikan tinggi awam dan swasta di Malaysia.

Keywords: Kesihatan mental, remaja, persekitaran, pendidikan, teknologi.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: hadziroh@uum.edu.my

Pengenalan

Sekitar penghujung 2019, wabak penyakit atau pandemik yang dikenali sebagai Coronavirus (Covid-19) yang berasal dari Wuhan, Hubei, China telah menjangkiti manusia secara global (Huang et al., 2020). Virus berbahaya ini merebak dengan mudah melalui sentuhan, udara dan sebagainya yang menyebabkan peningkatan jumlah kes orang yang dijangkiti dan seterusnya menyebabkan kematian. Sehingga kini, seramai 106 juta telah dijangkiti di seluruh dunia (239000 di Malaysia). Oleh kerana peningkatan kes orang yang dijangkiti dan kematian telah meningkat secara dramatik setiap hari, kebanyakan negara di dunia telah mengambil inisiatif untuk menutup beberapa institusi dan ini termasuk institusi pendidikan. Apa yang lebih serius, keadaan ini telah menimbulkan ancaman besar bagi kesihatan penduduk dunia dan menimbulkan cabaran yang besar bagi sistem kesihatan. Umumnya, hampir semua negara di dunia terkesan dengan COVID-19. Situasi ini menjadi lebih kritikal memandangkan kebanyakan negara kekurangan peralatan perubatan sehingga menyekat kebebasan manusia. Justeru itu menyebabkan peningkatan kos dan kerugian dalam aspek kewangan seterusnya menyumbang kepada masalah psikologi manusia seperti tekanan emosi, gangguan psikiatri, kemurungan dan masalah tidur (de Miranda, et al., 2020; Vindegaard & Benros, 2020).

Pelbagai strategi langkah pencegahan dan kawalan penyakit COVID-19 telah dibangunkan dan dilaksanakan oleh kerajaan Malaysia bagi mengekang penularan jangkitan virus ini, antaranya, Perintah Kawalan Pergerakan (PKP), Perintah Kawalan Pergerakan Bersyarat (PKPB), Perintah Kawalan Diperketat (PKPD), dan Perintah Kawalan Pergerakan Pemulihan (<https://www.mkn.gov.my/web/ms/sop-pkp-pemulihan/>). Amalan prinsip asas pencegahan dan kawalan penyakit turut diperkenalkan seperti mengelak 3S/3C (tempat sesak, sempit dan tertutup, dan bercakap dengan jarak dekat) dan amalan 3W (*wash, wear, warn*), serta pemantauan kesihatan sendiri (<http://www.myhealth.gov.my/jangkitan-penyakit-coronavirus-covid-19/>). Selain itu, pihak institusi awam, swasta dan sebagainya disarankan melaksanakan Prosedur Operasi Standard (*SOP*) di tempat kerja, tidak terkecuali pematuhan individu kepada *SOP* yang ditetapkan di tempat-tempat awam (<https://www.mkn.gov.my/web/ms/>). Bagi mengekang penularan jangkitan COVID-19 dalam kalangan murid-murid sekolah, pihak Kementerian Pendidikan Malaysia (KPM) juga telah memperkenalkan garis panduan pengurusan pembukaan sekolah secara lengkap (<https://www.moe.gov.my/pekeliling/3449-garis-panduan-pengurusan-pembukaan-semula-sekolah-4-6-2020/file>). Garis panduan ini terpakai kepada semua sekolah rendah dan sekolah menengah termasuk Kolej Vokasional dan Kolej Tingkatan Enam di bawah KPM dan Institusi Pendidikan Swasta (IPS) yang berdaftar dengan KPM.

Sejajar dengan pelaksanaan PKP, individu yang berisiko tinggi seperti golongan tua yang mnghidap penyakit kritikal, kanak-kanak dan individu lain yang mudah dijangkiti disarankan agar sentiasa berada di rumah bagi memutuskan rantaian COVID-19. Aktiviti rutin harian telah dikurangkan, begitu juga aktiviti pengajaran dan pembelajaran (PdP) bagi murid sekolah rendah dan menengah telah dilakukan di rumah (PdPR) secara dalam talian, atau luar talian atau secara off-site. Bagi memastikan pelaksanaan PdPR dilakukan secara efektif, KPM telah membangunkan manual PdPR (<https://www.moe.gov.my/muat-turun/lain-lain/manual-pdp-di-rumah/3727-manual-pdpr/file>) untuk membantu guru melaksanakan PdPR sebagai alternatif pembelajaran norma baharu. Namun begitu, timbul isu tentang impak pelaksanaan PdPR dimana secara tidak langsung telah memberi implikasi ke atas kesihatan dan psikologi murid

seperti tekanan mental dan ketagihan telefon pintar/internet (Duan et al., 2020). Ironiknya, gangguan *posttraumatic*, kegelisahan dan kemurungan dalam kalangan kanak-kanak dan remaja semasa dan selepas pandemik COVID-19 akan memberi kesan yang lebih serius dalam jangka masa panjang (de Miranda, et al., 2020). Oleh itu, satu penerokaan yang menyeluruh bagi mengenalpasti dengan lebih jelas tentang masalah kesihatan mental dalam kalangan remaja harus dilaksanakan. Seterusnya, kajian susulan tentang faktor yang mempengaruhi kesihatan mental harus juga dijalankan bagi memudahkan pihak yang terlibat merangka langkah intervensi yang bersesuaian. Sekaligus, membantu remaja menangani beban kesihatan mental akibat pandemik COVID-19.

Penyataan Masalah

Secara umumnya, pandemik COVID-19 dan PKP merupakan antara faktor yang menyumbang kepada masalah kesihatan mental. Pemisahan daripada dunia luar dalam tempoh tertentu secara tidak langsung menjejaskan emosi individu, terutamanya kanak-kanak dan remaja. Pada peringkat awal pandemik COVID-19, mereka lebih mudah terdedah kepada maklumat negatif daripada sumber yang pelbagai, ketakutan yang terlampau dan malu apabila dijangkiti COVID-19. Namun, dalam tempoh yang agak panjang, banyak faktor yang menjadi penyebab kepada masalah kesihatan mental dalam kalangan kanak-kanak dan remaja, antaranya persekitaran, pendidikan, pendedahan kepada teknologi dan sebagainya.

Laporan daripada Mercy Malaysia dan Pusat Kesiapsiagaan dan Tindak Cepat Krisis Kebangsaan (CPRC) menunjukkan 46.8 peratus panggilan adalah aduan tentang masalah psikologi disebabkan oleh pandemik COVID-19 (Mohtar & Si, 2021). Apa yang lebih membimbangkan, Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) mendapati 424,000 kanak-kanak mengalami masalah kesihatan mental (www.hmetro.com.my). Tinjauan ini turut melaporkan sejumlah besar daripada mereka adalah penduduk luar bandar iaitu 8.8 peratus dan B40 sebanyak 9.2 peratus (Zulkifli, 2020). Sekiranya tidak ditangani segera akan memberi impak kepada prestasi ekonomi negara dimana sebanyak RM14.46 bilion telah dibelanjakan pada 2018 dan berkemungkinan kos ini akan terus meningkat.

Di peringkat global, kajian yang dilakukan di China mendapati rakyat China telah mengalami ketakutan, kesunyian, panik, risau dan tekanan perasaan disebabkan oleh pandemik coronavirus (Duan & Zhu, 2020; Xiang et al., 2020). Keadaan ini boleh membawa kepada kes bunuh diri, marah, dan masalah tidur bagi tempoh yang lama (Rubin & Wessely, 2020; Wang et al., 2019). Sekiranya masalah ini juga turut dialami oleh kanak-kanak dan remaja, maka, ia boleh mengundang bencana yang lebih serius dan trauma yang teruk disebabkan oleh kelemahan pembangunan tindak balas emosi yang baik dalam kalangan kanak-kanak dan remaja (Roussos et al., 2005). Seterusnya, ini akan menjejaskan kesihatan mental mereka kerana tidak mendapat sokongan emosi daripada guru dan rakan-rakan (Sprang & Silman, 2013). Justeru itu, keadaan ini memerlukan perhatian yang lebih serius daripada pihak tertentu dalam meneliti masalah kesihatan mental kanak-kanak dan remaja dengan lebih mendalam memandangkan ia masih lagi samar (Ma et al., 2020) dan banyak lagi jurang teoritikal dan praktikal yang harus dipenuhi. Kajian empirikal harus dijalankan bagi mengenalpasti faktor-faktor yang mempengaruhi masalah kesihatan mental akibat pandemik COVID-19.

Dalam konteks pendidikan di Malaysia, penutupan institusi pendidikan termasuklah sekolah rendah dan menengah bagi tempoh tertentu telah mengubah proses PdP di sekolah. PdPR atau

kelas dalam talian telah dilaksanakan bagi memutuskan rantaian jangkitan COVID-19 dalam kalangan pelajar sekolah rendah dan menengah. Aplikasi teknologi seperti *Google Meet*, *Zoom*, dan *Webex* telah digunakan oleh para guru dalam melaksanakan kelas dalam talian. Bagi sesetengah pelajar, kaedah ini memberi kelebihan kepada mereka, namun terdapat juga pelajar yang merasa tidak selesa untuk mengikuti kelas dalam talian.

Justeru itu, ia mempengaruhi kesihatan mental disebabkan oleh beberapa halangan yang dihadapi oleh mereka. Antaranya, capaian internet yang tidak stabil, berkemungkinan tiada rangkaian di kawasan pendalaman, dan kelemahan pemantauan dan penilaian penglibatan pelajar bagi kelas dalam talian telah menyumbang bagi keadaan ini (Duan et al., 2020). Selain itu, faktor persekitaran seperti lokasi tempat tinggal samada di bandar atau kawasan pendalaman, penderaan fizikal dan mental, ahli keluarga atau rakan telah dijangkiti coronavirus, dan penggunaan teknologi secara berlebihan sehingga menyebabkan ketagihan kepada telefon pintar/internet mempunyai perkaitan dengan peningkatan masalah kesihatan mental pelajar (Duan et al., 2020). Golongan berpendapatan rendah juga mencatatkan kadar masalah kesihatan mental tertinggi dalam kalangan orang dewasa dan kanak-kanak (Yatim, 2020)

Berdasarkan kajian literatur, masih terdapat jurang teoritikal dan praktikal tentang isu kesihatan mental dalam kalangan remaja/pelajar. Ini disebabkan golongan ini sering diabaikan semasa terjadinya sesuatu wabak (Duan et al., 2020). Oleh itu, kajian ini akan dijalankan bagi meneliti masalah kesihatan mental dalam kalangan pelajar dan mengenalpasti faktor-faktor yang mempengaruhi masalah ini semasa pandemik COVID-19.

Kajian Literatur dan Pembangunan Hipotesis

Kesihatan Mental

Kemurungan

Penyakit kemurungan merupakan salah satu bentuk kecelaruan mental yang biasanya berlaku dalam sesebuah komuniti masyarakat. Pertubuhan Kesihatan Sedunia (WHO) menegaskan bahawa kemurungan adalah penyumbang penting kepada beban global penyakit dan menjejaskan individu dalam semua hubungan komuniti di seluruh dunia. Menurut Davison (2006) mentakrifkan kemurungan sebagai kondisi emosional seperti kesedihan yang melampau, perasaan yang tidak menentu dan bersalah, menyendiri dari orang sekeliling, mengalami kesukaran untuk tidur, kehilangan selera makan, dan kehilangan minat terhadap aktiviti yang selalu dilakukan. Kemurungan adalah gangguan mental biasa yang hadir dengan perasaan tertekan, kehilangan minat atau keseronokan, tenaga berkurangan, perasaan salah atau rendah diri, tidur atau selera makan terganggu, dan lemah tumpuan. Lebih-lebih lagi, kemurungan sering datang dengan gejala kebimbangan. Masalah ini boleh menjadi kronik atau berulang dan membawa kepada kemerosotan yang ketara dalam keupayaan individu untuk menjalani tanggungjawab hariannya. Paling merisaukan, kemurungan boleh membawa kepada bunuh diri. Hampir 1 juta nyawa terkorban setiap tahun akibat bunuh diri, bersamaan dengan 3000 kematian dilaporkan setiap hari (WHO,2012).

Kaplan (2010) menyatakan bahawa seseorang yang mengalami kemurungan akan merasakan kesan negatif seperti hilangnya energi-energi dan minat, perasaan bersalah, kesulitan berkonsentrasi. Kemurungan merupakan salah satu gangguan mental yang dihadapi oleh

sesiapa sahaja tanpa mengira umur, jantina, taraf pendidikan, status sosial, dan latar belakang kehidupan seseorang. Menurut Mahpis dan Md. Akhir (2020), kemurungan berlaku apabila seseorang itu berasa sukar untuk menjalinkan hubungan sosial dan merasakan bahawa mereka tidak layak diterima masyarakat dan sentiasa berasa bersalah dalam setiap tindakan yang dilakukan. Bahkan masyarakat pada mulanya menganggap kemurungan merupakan penyakit mental yang pada awalnya dilihat tidak begitu memberi kesan buruk kepada individual yang mengalami berbanding schizphrenia. Namun, pada realitinya masalah kemurungan memberi kesan yang amatburuk kepada golongan yang mengalami khususnya golongan remaja. Remaja sekiranya mereka tidak dibantu untuk keluar dari titik kemurungan tersebut, kebarangkalian mereka untuk menyalahkan diri mereka sendiri adalah tinggi.

Kemurungan juga memberi kesan kepada kehilangan fungsi tubuh badan dimana individu akan mengalami gejala seperti sakit kepala, berasa letih atau sakit perut. Ini disebabkan oleh keadaan dimana individu tersebut berasa letih kerana terlalu memikirkkan masalah yang mereka hadapi dan tidak dapat menyelesaikannya dengan baik. Selain itu, gangguan tidur dan masalah pemakanan juga merupakan gejala seseorang itu mengalami kemurungan (Mohd Suhaimi, 2018). Gejala ini boleh menyebabkan seseorang itu mengalami kesukaran untuk tidur sehingga menyebabkan mereka berasa letih kerana tidak mempunyai tidur yang cukup. Masalah pemakanan seperti hilang selera makan yang menyebabkan penurunan berat badan yang mendadak akibat hilang selera makan juga merupakan salah satu tanda kemurungan.

Kebimbangan

Perasaan bimbang atau kebimbangan merupakan suatu keadaan yang tidak menyenangkan dalam kehidupan manusia. Perasaan ini boleh menyebabkan manusia hidup dalam keadaan ketidakstabilan emosi seperti kerisauan, ketatukan, ketegangan, dan tekanan. Berdasarkan statistik global Pertubuhan Kesihatan Sedunia (WHO) pada tahun 2017 telah menyatakan bahawa anggaran bilangan individu mengalami gangguan kebimbangan di dunia ialah 264 juta orang. Laporan menyatakan bahawa wanita (4.6%) lebih ramai mengalami gangguan kebimbangan berbanding lelaki (2.6%) di seluruh pelesok negara (WHO, 2017). Dalam konteks Malaysia, kajian daripada Maideen, Mohd Sidik, Rampal, dan Mukhtar (2015) mendapati bahawa wanita lebih cenderung mengalami gangguan kebimbangan berbanding lelaki. Selain itu, dalam laporan Kajian Morbiditi Kesihatan Kebangsaan (2015) 29% penduduk Malaysia yang terdiri daripada remaja yang berumur 16 tahun ke atas didapati mengalami masalah kesihatan mental yang mana gangguan kemurungan dan kebimbangan disebut sebagai masalah utama dalam kalangan pelajar.

The American Heritage Medical (2007, p.38) telah mentakrifkan kebimbangan sebagai keadaan kebimbangan yang kuat, ketidakpastian dan ketakutan akibat jangkaan peristiwa atau situasi yang mengancam, selalunya pada tahap yang fungsi fizikal dan psikologi normal terganggu. Menurut American Psychiatric Association (2013), ketakutan dan kebimbangan adalah asas kepada pelbagai gangguan kecemasan. Kebimbangan mempengaruhi kedua-dua minda dan badan secara keseluruhannya. Gejala kebimbangan ini dapat dikesan melalui beberapa gejala fisiologi seperti sesak nafas, pening, ketegangan otot, rasa berdebar-debar, dan peningkatan kadar denyutan jantung. Dari sudut kognitif dan emosi pula, kebimbangan membawa kepada kegelisahan, ketakutan akan perkara yang akan datang, takut dimalukan, terhina, dan juga kematian (Kaswadi, Malik, & Keat, 2020).

Dalam konteks pendidikan, kebimbangan merupakan suatu gangguan psikologi yang berlaku terhadap pelajar yang memerlukan bantuan guru atau kaunselor sekolah untuk

menyelesaikannya. Selalunya, perasaan ini akan lebih kerap berlaku dalam kalangan pelajar apabila tibanya musim peperiksaan. Perasaan kebimbangan ini boleh menjejaskan proses pembelajaran pelajar. Satu kajian daripada Brown (2016) melaporkan bahawa American College Health Association (2015) mendapati satu daripada enam pelajar kolej didianogsis atau dirawat kerana mengalami masalah kebimbangan. Daripada pelajar yang dikenalpasti, kira-kira 21 peratus daripadanya melaporkan tahap kebimbangan yang serius dan menjejaskan prestasi akademik mereka. Kajian di Asia Tenggara oleh (Josephine et al. (2006) menyatakan bahawa dalam kajian tinjauan melalui jaringan web yang menilai kemurungan, tekanan dan kebimbangan telah di diedarkan kepada pelajar pengajian tinggi tahun pertama Pendidikan di Hong Kong. Hasil daripada kajian tersebut menunjukkan bahawa daripada 7915 responden, 41% didapati mengalami masalah kebimbangan tahap sederhana.

Masalah Kesihatan Mental dalam Kalangan Remaja

Kesihatan mental digambarkan oleh Organisasi Kesihatan Sedunia (*WHO*) sebagai keadaan kesejahteraan di mana seseorang memahami kemampuannya sendiri, dapat menguruskan stres kehidupan normal, dapat bekerja secara produktif, dan dapat memberikan sumbangan positif kepada masyarakatnya (Burns & Fardfini, 2020). Kajian terdahulu mendapati peningkatan masalah kesihatan mental adalah berdasarkan laporan diri atau pemerhatian klinikal (Kim & Hagquist, 2018). Selain itu, terdapat kajian menunjukkan bahawa penyakit mental mempengaruhi kira-kira 10-20 peratus kanak-kanak dan remaja di seluruh dunia, dengan gangguan mental di kalangan remaja dan dewasa mengakibatkan sebilangan besar hidup dengan ketidakupayaan (Maloney et al., 2020). Lebih-lebih lagi, anggaran prevalensi yang dilaporkan tahun sebelumnya (14 peratus untuk idea bunuh diri dan 9 peratus bagi kegelisahan) terus menjustifikasikan bahawa pemerhatian ke atas kesihatan mental dan bunuh diri remaja sebagai fokus utama kesihatan awam (Griffin & McMahon, 2020).

Kajian-kajian ini menunjukkan bahawa keseriusan kesihatan mental terutama di kalangan remaja kerana terdapat kemungkinan mereka memilih untuk membunuh diri. Walau bagaimanapun, terdapat hanya sedikit kajian mengenai kesan pandemik terhadap kesihatan mental. Menurut Montag and Elhai (2020), pandemik Covid-19 yang terjadi secara global pada tahun 2020 memerlukan individu untuk menjaga jarak sosial/kuarantin sehingga timbulnya kesan buruk yang tidak dijangka pada perdagangan global, dan juga masalah kesihatan mental apabila timbulnya tekanan sosial pada masyarakat itu sendiri. Begitu juga, ada kajian yang membuktikan bahawa penjarakan fizikal dan pengasingan dalam tempoh tertentu, peningkatan kadar pengangguran, ketidakpastian ekonomi, kelemahan penjagaan anak, layanan yang tidak sama rata dan bias jantina, ketidakstabilan perumahan, dan ketidakamanan makanan adalah disebabkan oleh halangan utama dalam cabaran kesihatan mental yang berkaitan dengan penyebaran wabak (Jenkins et al., 2020).

Penutupan institusi pendidikan akibat pandemik COVID-19 telah menyebabkan pembelajaran dalam talian dengan menggunakan aplikasi Google Meet, Zoom, Webex dan sebagainya. Menurut Jacobson et al. (2017) dipetik dalam (Zulfikar et al., 2019), pembelajaran dalam talian merujuk kepada pembelajaran melalui teknologi maklumat dan komunikasi, khususnya aplikasi dalam talian. Di samping itu, pelajar perlu mempunyai kemudahan yang mencukupi dalam melaksanakan pembelajaran dalam talian. Walau bagaimanapun, banyak kesukaran yang mungkin akan menghalang penyampaian pendidikan dalam talian secara berkesan termasuk kurangnya kesediaan di kebanyakan institusi, peserta dalam talian yang sangat besar dan penyampaian yang kurang kelas, disebabkan oleh persekitaran dan tingkah laku peserta. Selain itu, kekurangan sokongan psikologi, sosial dan akademik untuk pelajar dan gaya

keibubapaan yang buruk bagi beberapa pelajar dan guru (Hussein et al., 2020) menyebabkan masalah kesihatan mental di kalangan remaja.

Langkah-langkah yang diambil semasa pandemik dan penjarakan sosial mempunyai kesan yang signifikan terhadap kehidupan seharian remaja, yang mungkin mengakibatkan sekolah ditutup, pergerakan belajar yang fleksibel, dan batasan meninggalkan rumah mereka (Rogers et al., 2021). Lebih-lebih lagi, remaja mengalami perubahan emosi disebabkan persekitaran pembelajaran yang berubah. Walaupun begitu, masalah kesihatan mental yang dihadapi oleh remaja tidak akan sama mengikut latar belakang mereka. Remaja yang tinggal di luar bandar cenderung menghadapi tekanan kesihatan mental yang lebih tinggi kerana mereka mungkin kekurangan teknologi, internet dan tinggal jauh dari kemudahan seperti perpustakaan digital, kafe siber dan lain-lain. Oleh itu, dalam kajian ini para penyelidik mengemukakan dua dimensi masalah kesihatan mental dalam kalangan remaja, iaitu kemurungan (*depression*) dan kebimbangan (*anxiety*).

Persekitaran dan Kesihatan Mental

Persekitaran remaja perlu dalam memastikan bahawa mereka sentiasa mempunyai mental yang stabil dan tetap positif menjalani kehidupan mereka. Faktor persekitaran merangkumi keluarga, rakan sebaya dan kejiranan. Keluarga memainkan peranan penting untuk memastikan anak-anak mendapat perhatian yang mereka inginkan dan mendengar luahan perasaan mereka dengan ini dapat mengurangkan kecenderungan untuk mengalami penyakit mental. Bagi masyarakat Malaysia, keluarga terdiri daripada bapa sebagai penyedia utama dan ibu yang memainkan peranan utama sebagai pengasuh dan tinggal bersama keluarga mereka (Li et al., 2015). Persekitaran ini akan menjadi terbaik sekiranya semua orang dalam keluarga memainkan peranan mereka sendiri dengan cekap dan berkesan dalam menjaga anak-anak agar dapat melakukan yang terbaik dalam mencegah penyakit jiwa.

Menurut Li et al. (2015), beberapa kajian lepas mendapati bahawa pentingnya kesediaan ibu bapa bermula dengan gaya hidup di kalangan keluarga tentera, kerana kesediaan ibu bapa memainkan peranan penting dalam memelihara struktur keluarga dan membangunkan anak-anak. Walau bagaimanapun, situasi pandemik COVID 19 telah memberi impak yang besar terhadap fungsi persekitaran keluarga. Courtney et al., (2020) menjelaskan bahawa, disebabkan keberadaan di rumah untuk tempoh berpanjangan, persekitaran keluarga boleh menjadi risiko utama terhadap kesihatan mental remaja. Ini kerana wujud tekanan kepada ibubapa untuk menguruskan aktiviti pembelajaran atas talian untuk anak-anak, di samping mereka sendiri bergelut dengan tekanan ekonomi (seperti kehilangan sumber pendapatan) dan emosi kesan dari pandemik ini.

Begitu juga kawasan kejiranan, dimana aura yang positif dari persekitaran akan menghasilkan kesihatan mental remaja yang positif. Menurut Morrow (2001) yang dikutip dalam Martin et al., (2017), pilihan dan kebebasan untuk campur tangan dalam tingkah laku di kalangan remaja dipengaruhi oleh suasana sosial kejiranan. Tambahan pula, sokongan dari kejiranan sangat penting dalam mendapatkan kembali kekuatan ketika mereka berada dalam kesukaran. Kajian mengenai hubungan remaja dan kejiranan mendapati bahawa penggunaan sumber berkualiti tinggi penting dalam hubungan antara persekitaran sosial persekitaran remaja dengan kesihatan dan kesejahteraan mereka (Martin et al., 2017). Oleh itu, persekitaran remaja merupakan faktor yang mempengaruhi keadaan kesihatan mental mereka, yang mana persekitaran positif dapat mengelakkan remaja dari mengalami penyakit mental. Oleh itu, hipotesis kajian ialah:

H1: Terdapat hubungan yang signifikan antara faktor persekitaran dan kesihatan mental dalam kalangan remaja/pelajar sekolah menengah.

Pendidikan dan Kesihatan Mental

Sejak tercetusnya Covid-19 di seluruh dunia, sistem pendidikan telah berubah dengan sewajarnya. PdP bersemuka dihentikan dalam jangka pendek, dan pendidikan dalam talian menjadi pilihan yang ideal dan, dalam beberapa kes, satu-satunya pilihan yang ada (Hussein et al., 2020). Oleh itu, sekolah terpaksa ditutup, dan pelajar diminta untuk bertemu di alam maya menggunakan platform pembelajaran dalam talian. Kajian menunjukkan bahawa penutupan sekolah dan kuarantin di rumah mungkin memberi kesan kepada kesihatan fizikal dan mental kanak-kanak ketika pandemik. Selain itu, ramai guru dan pelajar yang tidak mempunyai pengalaman pembelajaran dalam talian dipaksa untuk melakukannya dengan sokongan yang terhad (Hussein et al., 2020). Ini akan mempengaruhi emosi remaja yang tidak mempunyai kemudahan yang mencukupi untuk melakukan kelas dalam talian. Di samping itu, dalam beberapa kes, remaja akan kehilangan semangat dan cenderung untuk hilang tumpuan ketika berada didalam kelas dalam talian. Oleh itu, pendidikan dapat mempengaruhi kesihatan mental remaja dengan cara mereka mendapati sama ada akademiknya menarik atau sebaliknya dan bagaimana sistem pendidikan mempengaruhi minat mereka.

Menurut Pertubuhan Pendidikan, Saintifik dan Kebudayaan Pertubuhan Bangsa-Bangsa (UNESCO) pandemik Covid-19 telah mengganggu proses pembelajaran yang melibatkan satu billion pelajar di 129 negara seluruh dunia (UNESCO, 2020). Pandemik Covid-19 telah menjadi isu kesihatan global dan telah memberi kesan kepada sektor pendidikan. Menurut kajian daripada Ana et al., (2020) dan Azman dan Abdullah (2021) berikutan impak besar daripada wabak ini Pertubuhan Kesihatan Sedunia (WHO) telah mencadangkan kepada masyarakat umum dan institusi pendidikan untuk menghentikan semua aktiviti. Oleh itu, selaras dengan pengisytiharan ini, sektor pendidikan dunia juga telah ditutup dan pembelajaran dijalan secara kaedah e-pembelajaran atau dalam talian.

Di kebanyakan negara, saranan pihak berkuasa kesihatan memaksa sektor pendidikan mencari alternatif kepada kaedah penyampaian secara bersemuka. Di Malaysia kaedah pelaksanaan Pengajaran dan Pembelajaran di Rumah (*PdPR*) telah digunakan oleh Kementerian Pendidikan Malaysia bagi setiap sekolah di semua negeri melalui kaedah e-pembelajaran atau dalam talian. Era pandemic Covid-19 ini menyaksikan kaedah Pendidikan secara maya, e-pembelajaran di mana rumah-rumah telah bertukar menjadi bilik darjah dan kelas tutorial. Dalam masa yang sama para pendidik mendapati mereka secara tiba-tiba berada dalam dunia pendidikan norma baru. Kesan daripada Covid-19 telah mencetuskan scenario kebergantungan sistem pendidikan kepada gadget dan media sosial. PdPR secara dalam talian berlaku apabila terdapat capaian kemudahan internet dan penggunaan peranti yang membolehkan pelajar menghadapi proses pembelajaran secara *real-time* (Awang Japilan & Sali, 2021). PdPR boleh dilaksanakan melalui beberapa pelantar sosial media seperti Digital Educational Learning Initiative Malaysia (DELIMa), Google Meet, rakaman, tugas secara dalam talian dan beberapa alternatif lagi. Bagaimanapun, pelaksanaan PdPR ini memerlukan pelajar menggunakan peranti elektronik berskrin seperti komputer, komputer riba, tablet atau telefon pintar dalam tempoh tertentu. Oleh itu, hipotesis kajian ialah:

H2: Terdapat hubungan yang signifikan antara faktor pendidikan dan kesihatan mental dalam kalangan remaja/pelajar sekolah menengah.

Teknologi dan Kesehatan Mental

Gaya hidup remaja dan dewasa muda semakin saling bergantung kepada teknologi dan data menunjukkan bahawa sekitar 92 peratus remaja berada dalam talian setiap hari dan 95 peratus remaja mempunyai telefon pintar (Wong et al., 2020). Pada masa kini, semuanya hanya di hujung jari. Manusia menggunakan teknologi dalam kehidupan seharian seperti aplikasi *Internet of Things (IoT)* dalam banyak peranti yang digunakan untuk aktiviti harian mereka. Kegunaan teknologi ini merangkumi penggunaan internet dan telefon pintar. Walaupun teknologi ada baiknya untuk manusia, tetapi ia juga boleh membahayakan kesihatan manusia. Hal ini kerana banyak pendedahan kepada teknologi dapat mempengaruhi manusia secara mental dan fizikal.

Pada masa ini, individu disarankan untuk kekal di rumah kerana penyebaran Covid-19 secara meluas. Pandemik ini telah mendorong banyak negara dalam mengubah pekerjaan, persekolahan, hubungan sosial, dan penjagaan kesihatan ke saluran dalam talian dengan serta-merta (Sanci, 2020). Sebagai tindak balas terhadap pandemik Covid-19, peralihan dramatis ke teknologi dalam talian untuk penyampaian perkhidmatan kesihatan, pengumpulan data penyelidikan, dan pendidikan menyoroti peluang dan bahaya teknologi inovatif, terutama berkaitan dengan ketidaksamaan akses, ketidaksamaan, dan masalah privasi (EMOP D&D, 2020). Oleh itu, orang muda lebih terdedah untuk menghabiskan masa yang lama di rangkaian sosial, termasuk peranti digital, telefon pintar, komputer peribadi dan televisyen (Montag & Elhai, 2020). Namun, menghabiskan terlalu banyak masa untuk teknologi dapat memberikan banyak kesan negatif kepada pengguna. Ketagihan kepada telefon pintar/internet menjadi semakin lebih serius. Ketagihan telefon pintar merujuk kepada tingkahlaku dan keadaan psikologi yang merangkumi tahap mental dan emosi yang merubah interaksi individu disebabkan oleh penggunaan telefon pintar secara berlebihan (Lee dan Ogbolu, 2018). Ketagihan kepada telefon pintar membuktikan bahawa tahap keseriusan kesan teknologi terhadap kesihatan mental remaja.

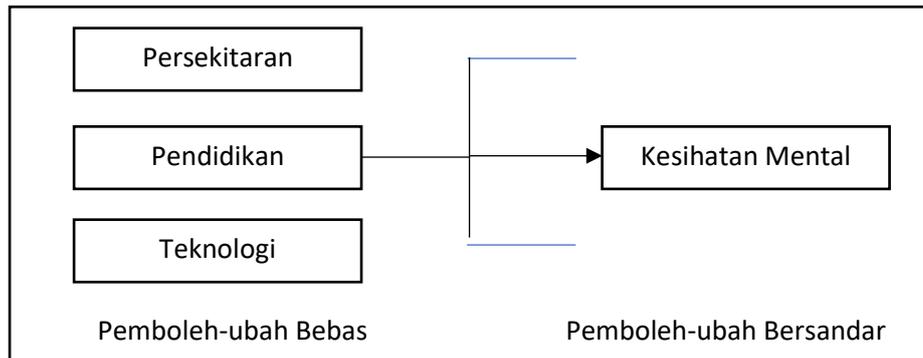
Selain itu juga, kesan dari pendedahan teknologi turut menimbulkan ketagihan internet dikalangan remaja yang menyebabkan berlaku peningkatan kes kesihatan mental. Ketagihan internet ditakrifkan sebagai kebergantungan psikologi terhadap Internet dan ketagihan ini meliputi sebarang aktiviti atas talian (Masaeli & Farhadi, 2021). Ketagihan Internet turut diklasifikasikan sebagai satu kecelaruan iaitu samada kecelaruan gangguan impulsif atau ketagihan tingkahlaku (Lee et al., 2013).

Penggunaan media (digital) dengan sendirinya mungkin mempunyai kesan buruk yang jelas seperti penggunaan bahan media yang ganas, persepsi mengenai buli siber atau kesan negatif dimana biasanya disertai dengan penggunaan yang tidak wajar (Montag & Elhai, 2020). Buli siber boleh dilakukan melalui pelbagai medium elektronik seperti telefon bimbit, e-mail, perbualan atas talian termasuklah MySpace, Facebook dan blog peribadi (Calvete, Orue, Estevez, Villardon & Padilla, 2010). Sebagai contoh, buli siber yang kini berleluasa di media sosial boleh mempengaruhi mental mangsa. Ini akan menjadi penyebab penyakit mental yang dihadapi oleh remaja melalui penggunaan teknologi. Oleh itu, penggunaan teknologi dapat mempengaruhi kesihatan mental di kalangan remaja. Oleh itu, hipotesis kajian ialah:

H3: Terdapat hubungan yang signifikan antara faktor pendidikan dan kesihatan mental dalam kalangan remaja/pelajar sekolah menengah.

Cadangan Model Kajian

Berdasarkan kajian lepas, terdapat banyak faktor yang mempengaruhi kesihatan mental individu. Namun begitu, kajian dalam kalangan remaja di Malaysia agak terhad, terutama sekali dalam tempoh pandemik Covid-19. Rajah 1 menunjukkan model cadangan kajian. Dalam konteks kajian ini, tiga faktor utama (pembolehubah bebas) iaitu faktor persekitaran, pendidikan dan teknologi telah dikenalpasti akan mempengaruhi kesihatan mental remaja/pelajar sekolah di Malaysia.



Rajah 1: Model cadangan kajian

Metodologi Kajian

Populasi dan Sampel

Bagi mencapai objektif kajian yang telah dinyatakan, kajian ini akan menggunakan pendekatan *mixed-method* iaitu gabungan kualitatif dan kuantitatif. Kaedah ini bertujuan untuk memastikan data yang dikumpulkan adalah lebih komprehensif dan lebih bermanfaat kepada keseluruhan kajian. Memandangkan persoalan kajian utama ini adalah untuk meneroka dan meneliti masalah kesihatan mental dalam kalangan remaja/pelajar sekolah, dan seterusnya menilai pengaruh faktor-faktor penyebab keatas masalah ini, maka, kaedah *mixed-method* merupakan kaedah yang tepat digunapakai bagi kajian ini. Unit analisis bagi kajian ini adalah individu iaitu remaja/pelajar sekolah menengah.

Populasi kajian ini merupakan remaja/pelajar sekolah menengah di Malaysia. Merujuk kepada World Health Organization (WHO), remaja adalah individu yang berumur dari 10 hingga 19 tahun (www.who.int). Beberapa kajian emperikal tentang kesihatan mental dalam kalangan remaja juga menggunakan julat umur yang sama (Luthar, Ebbert & Kumar, 2020; Neto, 2009). Dalam kajian ini, populasi remaja/pelajar sekolah menengah akan melibatkan pelajar-pelajar yang berumur antara 13 – 19 tahun. Jumlah populasi pelajar sekolah menengah di Malaysia ialah sebanyak 2,344,891 (www.moe.gov.my).

Dari aspek persampelan, kajian ini akan menggunakan persampelan bukan kebarangkalian iaitu persampelan bertujuan (*purposive sampling*). Persampelan bertujuan adalah kaedah persampelan di mana penyelidik bergantung kepada pertimbangan mereka sendiri untuk memilih sampel daripada populasi kajian untuk terlibat dalam kajian (Cresswell & Plano Clark, 2011). Pada asasnya, teknik persampelan ini membolehkan penyelidik mengenalpasti dan memilih individu yang mempunyai pengetahuan atau maklumat khusus berkaitan dengan topik

atau isu kajian (Cresswell & Plano Clark, 2011). Tambahan daripada itu, kesediaan dan kesanggupan individu untuk terlibat dalam kajian juga penting dalam teknik ini. Sehubungan dengan itu, persampelan bertujuan akan digunakan bagi mendapatkan data daripada remaja/pelajar sekolah menengah di semua negeri di Malaysia yang dapat dihubungi dan bersetuju secara sukarela untuk terlibat dalam kajian. Berdasarkan jumlah populasi yang dinyatakan di atas, jumlah sampel yang diperlukan adalah sebanyak 384 remaja/pelajar (Krejcie & Morgan, 1970).

Prosedur Pengutipan Data

Pelaksanaan pengumpulan data kajian melibatkan dua peringkat. Peringkat pertama adalah pengumpulan data kualitatif secara temuduga bersemuka. Manakala peringkat kedua melibatkan pengutipan data kuantitatif dengan menggunakan soalselidik.

Peringkat Pertama: Pengumpulan Data Kualitatif

Pengumpulan data secara kaedah lapangan akan dilakukan bertujuan untuk mendapatkan maklumat tentang masalah kesihatan mental dalam kalangan remaja/pelajar sekolah menengah dan seterusnya membangunkan instrumen kajian. Peringkat ini melibatkan temu bual dengan remaja/pelajar sekolah menengah yang terpilih di negeri Kedah sahaja. Penyelidik akan menggunakan soalan temu bual separa berstruktur yang akan dibentuk terlebih dahulu. Soalan separa berstruktur ini merangkumi enam bahagian iaitu: Bahagian A: Soalan Demografi, Bahagian B: Soalan berkaitan Covid -19, Bahagian C: Soalan berkaitan Kesihatan Mental, Bahagian D: Soalan berkaitan Persekitaran, Bahagian E: Soalan berkaitan Pendidikan, Bahagian F: Soalan berkaitan Teknologi. Pengumpulan data kualitatif bertujuan untuk mendapatkan input daripada responden tentang masalah kesihatan mental, faktor penyebab kepada masalah dan cadangan atau langkah-langkah bagi mengatasi masalah kesihatan mental.

Peringkat Kedua: Pengumpulan Data Kuantitatif

Pada peringkat kedua, pengumpulan data secara tinjauan akan dilakukan. Data kualitatif yang diperoleh pada peringkat pertama akan digunakan untuk membangunkan soal-selidik. Pembangunan soal selidik ini akan berasaskan data kualitatif yang diperolehi pada peringkat pertama dan sorotan kajian susastera/literatur yang relevan khususnya untuk mengenalpasti faktor-faktor yang mempunyai perkaitan dengan masalah kesihatan mental. Seterusnya soal selidik ini akan diuji untuk memastikan *face validity* dan *content validity* bagi instrumen yang dibentuk. Instrumen ini akan digunakan untuk mencapai objektif kajian. Pengumpulan data kuantitatif bertujuan untuk menilai pengaruh faktor-faktor penyebab ke atas masalah kesihatan mental dalam kalangan remaja/pelajar sekolah menengah di Malaysia.

Kaedah Analisis Data

Data kualitatif iaitu input daripada responden berkenaan dengan masalah kesihatan mental, faktor-faktor mempengaruhi kesihatan mental dan cadangan/langkah-langkah bagi mengatasi masalah kesihatan mental akan dianalisis dengan analisis *thematic*. Analisis *thematic* merupakan satu kaedah yang digunakan untuk mengenal pasti, mengorganisasi dan memberikan pemahaman dalam bentuk maksud (tema) bagi satu set data. Analisis ini membolehkan penyelidik mengenal pasti dan memahami maksud dan pengalaman secara kolektif (Barun & Clarke, 2006). Secara khususnya, kajian ini menggunakan kaedah pengkodan *thematic*, dimana prosesnya bermula dengan data tertentu yang kemudiannya diubah menjadi kategori dan tema. Seterusnya kesimpulan dibuat berdasarkan pemerhatian ke atas data tersebut.

Manakala data kuantitatif akan dianalisis dengan menggunakan Perisian SPSS. Analisis deskriptif seperti peratusan dan kekerapan digunakan untuk mengkaji dan meringkaskan maklumat demografi responden kajian. Selain itu, data kuantitatif yang diperoleh pada peringkat kedua juga akan menggunakan analisis statistik seperti analisis regresi pelbagai (multiple linear regression) untuk menentukan perkaitan antara faktor persekitaran, pendidikan dan teknologi dengan masalah kesihatan mental.

Kesimpulan

Pandemik Covid-19 telah banyak mengubah gaya hidup remaja/pelajar sekolah ekoran daripada langkah-langkah pencegahan dan kawalan Covid-19 di Malaysia. Perintah kawalan pergerakan (PKP) khususnya telah memberi pengalaman baharu kepada pelajar dalam mendepani perubahan hidup bersosial, kerohanian dan pendidikan. Menyedari akan pentingnya pembangunan rohani, psikologi dan sosial pelajar, kajian ini telah memberi fokus pada aspek kesihatan mental mereka supaya semua pihak samada ibubapa, guru, dan pihak kerajaan dapat mengetahui perkembangan emosi dan psikologi pelajar.

Hasil kajian ini akan memberi manfaat kepada pihak kerajaan dan juga pihak-pihak lain yang berkenaan. Secara khususnya, kajian ini akan memberikan implikasi positif kepada beberapa aspek:

- i. Kajian ini selari dengan objektif Dasar Kesihatan Mental Negara yang bertujuan untuk memperbaiki kesihatan mental dan kesejahteraan seluruh rakyat. Ini dapat direalisasikan dengan mengenalpasti masalah ini di peringkat awal (waktu remaja) dan langkah pencegahan dapat diambil dengan sewajarnya. Dengan itu, kos kewangan dan bukan kewangan bagi mengatasi masalah kesihatan mental dapat dikurangkan.
- ii. Selain itu, dapatan kajian ini boleh digunakan sebagai panduan bagi menambahbaik Dasar Kesihatan Mental (sekiranya perlu) memandangkan kajian seumpama ini dengan mengambilkira kesan akibat pandemik COVID-19 ke atas remaja jarang dilaksanakan sebelum ini. Ia adalah penting agar Malaysia dapat bersedia pada masa hadapan dengan pembangunan strategi yang mampan dalam menangani wabak seperti ini.
- iii. Penambahbaikan yang boleh dilakukan ke atas Dasar Kesihatan Mental adalah daripada aspek:
 - Pembangunan dan pelaksanaan program kesihatan yang signifikan dengan golongan remaja.
 - Mempertingkatkan perkhidmatan kesihatan mental yang disediakan oleh pihak berkenaan seperti Kementerian Kesihatan Malaysia, Kementerian Pendidikan dan masyarakat.

PENGHARGAAN

Sekalung penghargaan kepada Lembaga Penduduk dan Pembangunan Keluarga Malaysia (LPPKN) atas dana penyelidikan yang diberikan di bawah Geran Agensi Luar (Dalam Negara) Awam.

RUJUKAN

- American Heritage Medical Dictionary Editors (2007). *The American heritage medical dictionary*. Boston, MA: Houghton Mifflin Harcourt (HWH).
- American Psychiatric Association (2013). *The diagnostic and statistical manual of mental disorders, 5th Edition*. Washington, DC: Author.
- Awang Japilan, N.H. & Saili, J. (2021). Covid-19: transformasi pengajaran dan pembelajaran di rumah (PdPR) amali solat, tilawah al-quran dan hafazan al-quran menggunakan inovasi. *Prosiding Seminar Penyelidikan dan Inovasi Pendidikan (SPIP2021) Peringkat Kebangsaan 24-26 Mac 2021*.
- Barry, M. M. et al., 2013. A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health, 13*(835), pp. 1-19, DOI: 10.1186/1471-2458-13-835.
- Berita Harian. (2021). Memahami tekanan perasaan dalam kalangan pelajar. Retrieved from [Memahami tekanan perasaan dalam kalangan pelajar \(bharian.com.my\)](http://www.bharian.com.my)
- Brown, J. (2016). Anxiety and Depression: Anxiety the most common mental health diagnosis in College Students. *BU Today*. Retrieved from <http://www.bu.edu/today/2016/college-students-anxietyand-depression/>
- Burns, R. J., & Fardfini, K. (2020). Prevalence and Correlates of Positive Mental Health Among Canadian Adults with Type 1 or Type 2 Diabetes: Results from the Canadian Community Health Survey- Mental Health. *Canadian Journal of Diabetes*. <https://doi.org/10.1016/j.cjcd.2020.12.001>
- Calvete, E., Orue, I., Esteves, A., Villardon, L., & Padilla, P. (2010). Cyberbullying in adolescents: modalities and aggressors' profile. *Computers in Human Behavior, 26*, 1128-1135.
- Courtney, D., Watson, P., Battaglia, M., Mulsant, B.H., & Szatmari, P. (2020). COVID-19 impacts on child and youth anxiety and depression: challenges and opportunities. *The Canadian Journal of Psychiatry, 65*(10), 688-691.
- de Miranda, D. M., da Silva Athanasio, B., de Sena Oliveira, A. C., & Silva, A. C. S. (2020). How is COVID-19 pandemic impacting mental health of children and adolescents? *International Journal of Disaster Risk Reduction, 10*1845.
- Duan, L., Shao, X., Wang, Y., Huang, Y., Miao, J., Yang, X., & Zhu, G. (2020). An investigation of mental health status of children and adolescents in china during the outbreak of COVID-19. *Journal of affective disorders, 275*, 112-118.
- Duan, L., Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *The Lancet Psychiatry 7*, 300-302.
- Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., ... & Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The lancet, 395*(10223), 497-506.
- Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE. *Children and Youth Services Review, 119*(November), 105699. <https://doi.org/10.1016/j.childyouth.2020.105699>
- Giannopoulou, I., Efstathiou, V., Triantafyllou, G., Korkoliakou, P., & Douzenis, A. (2021). Adding stress to the stressed: Senior high school students' mental health amidst the COVID-19 nationwide lockdown in Greece. *Psychiatry Research, 295*(November 2020), 113560. <https://doi.org/10.1016/j.psychres.2020.113560>
- Griffin, E., & McMahon, E. (2020). Adolescent mental health: Global data informing opportunities for prevention. *EClinicalMedicine, 24*, 0-1. <https://doi.org/10.1016/j.eclinm.2020.100413>

- Israni, S. T., A. M. B., Matheny, M. E., H, M. P., Matlow, R., Ph, D., Whicher, D., Ph, D., & S, M. H. (2020). Equity , Inclusivity , and Innovative Digital Technologies to Improve Adolescent and Young Adult Health. *Journal of Adolescent Health*, 67(2), S4–S6. <https://doi.org/10.1016/j.jadohealth.2020.05.014>
- Jenkins, E., McAuliffe, C., Hirani, S., Richardson, C., Thomson, K., Kousoulis, A., Morris, J., Gadermann, A. (2020). A portrait of the early and differential mental health impacts of the COVID-19 pandemic in Canada: Findings from the first wave of a nationally representative cross-sectional survey. *Preventative Medicine*, Accepted, 106333. <https://doi.org/10.1016/j.ypmed.2020.106333>
- Josephine G.W.S. Wong, Erik P.T. Cheung, Kitty K.C. Chan, Kamela K.M. Ma, & Siu Wa Tang (2006). Webbased survey of depression, anxiety and stress in first year tertiary education students in Hongkong. *Australian and New Zealand Journal of Psychiatry*, 40, 9, 777-782. doi. <https://doi.org/10.1080/j.1440-1614.2006.01883.x>
- Kaswadi, K.A., Malik, A., & Keat, O.B. (2018). Anxiety and academic achievement among undergraduate students. *Management and Science University*, 16(2), 11-18.
- Kim, Y., & Hagquist, C. (2018). Mental health problems among economically disadvantaged adolescents in an increasingly unequal society: A Swedish study using repeated cross-sectional data from 1995 to 2011. *SSM - Population Health*, 6(August), 44–53. <https://doi.org/10.1016/j.ssmph.2018.08.006>
- Lee, K., Lee, H-K., G, H, Yu, B., Song, Y-M., & Kim, D. (2013). Reliability and validity of the Korean version of the Internet addiction test among college students. *Journal of Korean Medical Science*, 28, 763-768
- Li, S. Y., Roslan, S., Abdullah, M. C., & Abdullah, H. (2015). Commuter Families: Parental Readiness, Family Environment and Adolescent School Performance. *Procedia - Social and Behavioral Sciences*, 172, 686–692. <https://doi.org/10.1016/j.sbspro.2015.01.420>
- Maideen, S.F.K, Mohd Sidik, S., Rampal, L., & Mukhtar, F. (2015). Prevalence, associated factors and predictors of anxiety: a community survey in Selangor, Malaysia. *BMC Psychiatry*, 15, pp. 262. doi: [10.1186/s12888-015-0648-x]
- Maloney, C. A., Abel, W. D., & Mcleod, H. J. (2020). Jamaican adolescents ' receptiveness to digital mental health services : A cross-sectional survey from rural and urban communities. *Internet Interventions*, 21(April), 100325. <https://doi.org/10.1016/j.invent.2020.100325>
- Martin, G., Gavine, A., Inchley, J., & Currie, C. (2017). Conceptualizing, measuring and evaluating constructs of the adolescent neighbourhood social environment: A systematic review. *SSM - Population Health*, 3 (November 2016), 335–351. <https://doi.org/10.1016/j.ssmph.2017.03.002>
- Masaeli, N., & Farhadi, H. (2021). Prevalence of Internet-based addictive behaviors during COVID-19 pandemic: a systematic review. *Journal of Addictive Diseases*, 39 (4), 468- 488.
- Lee, E, J., & Ogbolu, Y. (2018). Does parental control work with smartphone addiction? *Journal of Addictions Nursing*, 29(2), 128-138
- Michelson, D., Malik, K., Parikh, R., Weiss, H. A., Doyle, A. M., Bhat, B., Sahu, R., Chilhate, B., Mathur, S., Krishna, M., Sharma, R., Sudhir, P., King, M., Cuijpers, P., Chorpita, B., Fairburn, C. G., & Patel, V. (2020). Effectiveness of a brief lay counsellor-delivered, problem-solving intervention for adolescent mental health problems in urban, low-income schools in India: a randomised controlled trial. *The Lancet Child and Adolescent Health*, 4(8), 571–582. [https://doi.org/10.1016/S2352-4642\(20\)30173-5](https://doi.org/10.1016/S2352-4642(20)30173-5)

- Mohtar, J., & Si, T. M. (2021). COVID-19, Status Sosioekonomi dan Kesehatan Mental Rakyat. <https://www.bernama.com/bm/tintaminda/news.php?id=1917460>
Diakses pada 7 Februari 2021.
- Montag, C., & Elhai, J. D. (2020). Addictive Behaviors Reports Discussing digital technology overuse in children and adolescents during the COVID-19 pandemic and beyond : On the importance of considering Affective Neuroscience Theory. *Addictive Behaviors Reports*, 12, 100313. <https://doi.org/10.1016/j.abrep.2020.100313>
- National Health and Morbidity Survey 2015. Vol. II: Non-Communicable Diseases, Risk Factors & Other Health Problems. Institute for Public Health.
- Pronk, S., Mulder, E. A., Berg, G. Van Den, Stams, G. J. J. M., Popma, A., & Kuiper, C. (2020). Children and Youth Services Review Differences between adolescents who do and do not successfully complete their program within a non-residential alternative education facility. *Children and Youth Services Review*, 109(July 2019), 104735. <https://doi.org/10.1016/j.chilyouth.2019.104735>
- Rogers, A. A., Ha, T., & Ockey, S. (2021). Adolescents' Perceived Socio-Emotional Impact of COVID-19 and Implications for Mental Health: Results From a U.S.-Based Mixed-Methods Study. *Journal of Adolescent Health*, 68(1), 43–52. <https://doi.org/10.1016/j.jadohealth.2020.09.039>
- Roussos, A., Goenjian, A.K., Steinberg, A.M., Sotiropoulou, C., Kakaki, M., Kabakos, C., Karagianni, S., Manouras, V. (2005). Posttraumatic stress and depressive reactions among children and adolescents after the 1999 earthquake in Ano Liosia, Greece. *American Journal of Psychiatry* 162, 530-537.
- Rubin, G.J., Wessely, S. (2020). The psychological effects of quarantining a city. *BMJ* 368, m313.
- Ryan, R.M., & Deci, E.L. (2001). On happiness and human potential: a review of research on hedonic and eudaimonic well-being. *Annu Rev Psychol*, 52, 141–166.
- Sprang, G., Silman, M. (2013). Posttraumatic stress disorder in parents and youth after health-related disasters. *Disaster medicine and public health preparedness* 7, 105-110.
- Vindegaard, N., & Benros, M. E. (2020). COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. *Brain, behavior, and immunity*, 89, 531-542.
- Wang, G., Zhang, J., Lam, S.P., Li, S.X., Jiang, Y., Sun, W., Chan, N.Y., Kong, A.P.S., Zhang, Y., Li, S. (2019). Ten-Year Secular Trends in Sleep/Wake Patterns in Shanghai and Hong Kong School-Aged Children: A Tale of Two Cities. *Journal of Clinical Sleep Medicine* 15, 1495-1502.
- WHO. (2001a). Basic documents, 43rd (edn). Geneva World Health Organization.
- WHO. (2001b). Strengthening mental health promotion. Geneva, World health organization (fact sheet no.220).
- Wong, C. A., P, M. S. H., Madanay, F., A, M., Ozer, E. M., Harris, S. K., Moore, M., S. O., O, D., Moreno, M., Ed, M. S., H, M. P., Weitzman, E. R., Sc, D., & Sc, M. (2020). Digital Health Technology to Enhance Adolescent and Young Adult Clinical Preventive Services : Affordances and Challenges. *Journal of Adolescent Health*, 67(2),24–33. <https://doi.org/10.1016/j.jadohealth.2019.10.018>
- World Health Organization. (2014). Social determinants of mental health. [pdf] Geneva: World Health Organization. Retrieved from http://www.lisboninstitutegmh.org/assets/docs/publications/9789241506809_eng.pdf
- Xing, Y., Hu, Y., & Zhou, J. (2021). International Journal of Educational Development Higher education and family background: Which really matters to individual ' s socioeconomic status development in China. *International Journal of Educational*

- Development*, 81(September 2020), 102334.
<https://doi.org/10.1016/j.ijedudev.2020.102334>
- Xiang, Y.-T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., Ng, C.H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry* 7, 228-229.
- Yatim, M. N. M. (2020). Covid-19 tingkat penyakit mental, kemurungan. <https://www.utusan.com.my/rencana/2020/12/covid-19-tingkat-penyakit-mental-kemurungan/> Diakses pada 7 Februari 2021.
- Zulfikar, A. F., Muhidin, A., Pranoto, Suparta, W., Trisetyarso, A., Abbas, B. S., & Kang, C. H. (2019). The effectiveness of online learning with facilitation method. *Procedia Computer Science*, 161, 32–40. <https://doi.org/10.1016/j.procs.2019.11.096>
- Zulkiffli, Z. (2020). Masalah mental kanak-kanak Malaysia membimbangkan. <https://www.bharian.com.my/berita/nasional/2020/06/701929/masalah-mental-kanak-kanak-malaysia-membimbangkan>. Diakses pada 7 Februari 2021.

A STRUCTURAL MODEL OF THE RELATIONSHIP BETWEEN PRODUCT QUALITY, BENEFITS, VALUES AND CONSUMER CONSUMPTION BEHAVIOR TOWARDS HERBAL PRODUCTS

Tunku Nur Atikhah TUNKU ABAIDAH¹, Nor Azila MOHD NOOR² and Mohd Tahir AHMAD³

^{1,2,3}*Universiti Utara Malaysia*

Abstract. Herbal products have been shown to benefit human health and well-being and are now recognized as alternative medicine systems. Despite the growing global demand for herbal products, only a few studies have been conducted to investigate the factors influencing consumers' consumption of herbal products and their consumption patterns in developing countries. Therefore, this research examines the influence of perceived value, perceived product quality and perceived benefits on herbal products consumption. This study also examines the mediating effect of perceived value on the relationships between perceived product quality, perceived benefits and herbal product consumption. The underpinning theory used in this study was the Stimulus-Organism-Response (SOR) Model. Data were collected using the purposive sampling method among consumers who have experienced consuming herbal products. An online questionnaire was used for this purpose. Data gathered from 252 respondents were analyzed using the partial least squares-structural equation modeling (PLS-SEM) approach. The results revealed that perceived product quality was the most significant factor influencing consumers' consumption behavior towards herbal products. However, perceived value did not mediate the relationships between perceived product quality, perceived benefits and consumption of herbal products. Marketers should emphasize on quality if they want to attract consumers to buy herbal products. Advertisers and herbal product manufacturers should work together to demonstrate the quality and safety of herbal products to the general public. This research has extended the findings on herbal product consumption from a developing country's perspective.

Keywords: Herbal products, consumer consumption behaviour, perceived product quality, perceived product benefits.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: t.nur.atikhah@uum.edu.com

Introduction

The development of Malaysia's economy comes mainly from the agricultural sector. This sector is also becoming a major contributor to national income and export earnings (Liu 2021). According to the Malaysian Agricultural Research and Development Institute (MARDI), the Malaysian agricultural sector has come a long way since Malaysia achieved independence in 1957 (Yaakub et al., 2018; Zaini & Mustafa, 2019). The Department of Statistics Malaysia (DOSM) stated that at the beginning of the 21st century, agriculture accounted for less than 1/10th of the country's Gross Domestic Products (GDP) and export earnings. This is because the industrial sectors such as services, electrical and electronics and construction have become the country's engine of growth (Liu, 2021). Changes in the country's economic structure to meet the goal of becoming a high income-generating country by 2020 enables the agro-food industry to play a more relevant and competitive role (Ramli & Arumugan, 2021).

According to Ya'akob, Lim, and Hashim (2018), there has been a surge of interest in indigenous herbs for medicinal purposes in Malaysia. Malaysia is rich in flora and fauna medicinal products that come with health benefits (Yan, Hong & Alshagga, 2021). The herbal industry in Malaysia, however, is a small and fragmented industry. Herbs and spices in Malaysia are widely used in the Malay community for their daily dishes. Herbs have been listed within the National Key Economic Area (NKEA) as potential agricultural commodities and are expected to contribute to the income of the country and generate job opportunities (Sharifuddin, Mazlan, & Rezai, 2018). The rising consumer awareness on the effectiveness of herbal products that are easily available over the counter without a doctor's prescription creates an ever-increasing interest and demand for herbs and herbal products all over the world (Ismail et al., 2021).

The consumption of herbal products has become increasingly significant all over the world in the past two decades. Due to this factor, it is projected that the global trade of natural plant products would triple by 2025 (Ramli & Arumugan, 2021). According to Pauzi et al. (2021), herbal products have been increasingly consumed and commercialized as components of various kinds of products, such as tea, cosmetics, medicines and household products. Malaysia's market for herbal products is expanding at a rapid pace caused by a high demand for the use of crude plant-based products for treatment. The Malaysian's Government has initiated the program involving the key herbal industry players, authorities, and researchers to work on this program, and concurrently it can contribute to Malaysian GDP from RM19 billion to RM28 billion by 2027 (MIDA, 2020; Tan et al., 2020).

Specifically in Malaysia, despite increasing land use in herbal farming, the internal consumption of herbal products is still considered to be low (Yahya & Mokhtar, 2022). The apparent controversy of benefit of herbal products vs. low domestic demands poses the question of how, why and who are purchasing herbal products. Pharmacologist Prof. Dr Yam Mun Fei argued that there was an issue with the control of the herbal medicine market in Malaysia (Tan et al., 2020). Several dangerous products slipped through because conventional products did not meet the same strict requirements as prescription products in the regulations (Ismail et al., 2018). According to Health Director-General Tan Sri Dr Noor Hisham Abdullah, as stated in monographs, pharmacopoeia and related reference sources (Tan et al., 2020), the registration of traditional products was based on stated benefits ("Traditional medicine lacks

stringent regulations,” 2018). Moreover, the perception on quality and effectiveness of herbal products are not thoroughly examined (Ismail et al., 2021).

Prior studies also identified that many herbal products had not been thoroughly studied, and their use is not regulated (Haque et al., 2020; Ismail et al., 2021). Thus, the study of herbal products with regard to Malaysian consumers would provide the marketers a strategic framework to understand and target the present and futuristic demands of consumers optimally.

Literature Review

Hypothesis Development

The relationship between perceived product quality and consumer consumption behavior towards herbal products

Perceived quality is defined as consumers' overall judgment about a business's differences or dominance (Alamsyah et al., 2021; Wanget al., 2020). As pointed out by Lima, Ares and Deliza (2017), the key strategy to stimulate people to choose the right supplement for their children is the printed label on the front of the food product package. A number of factors, such as purchase and loyalty, willingness to spread positive word of mouth, referral and complaint, have been shown in the past study to be remarkable concepts linking quality and satisfaction with behavioural intention (Shahab, Ghazali and Mohtar, 2021; Sagan et al., 2014).

Consumers are being increasingly perceived to be more conscious of maintaining their good health by switching their diet to food that offers additional benefits, far more than those provided by conventional food as they are willing to pay more for the products (Malla et al., 2018). This is supported by Liang and Lim (2020) who stated that the quality of food products, the unpredictable and harmful consequences of consuming such foods, made consumers dare not take the risk. In making a purchase, consumers consider the consistency and nature of herbal goods as the most important factors (Bansal, 2016). Therefore, H1 is proposed:

H1: Perceived product quality positively influences herbal products consumption.

Relationship Between Perceived Benefits and Consumption Behaviour Towards Herbal Products

Benefits refer to the desired outcomes from the consumption of a product (Choe & Kim, 2018; Meretse et al., 2016). Previous studies have addressed a variety of the benefits of consumer products, including functional, social, affective, epistemic, aesthetic, hedonic, situational and holistic benefits (Kim & Choe, 2019; Liu & Cheng, 2019). The perceived benefits vary on the basis of product consumption state and consumer's preferences and choices (Lee, Jung & Lee, 2021).

Perceived benefit may be defined as the patron's belief about the degree to which he or she will be satisfied with the purchase and the usage of an item (Jaeger et al., 2020). The perceived benefit, which is the gain, denotes “the perceived net gains associated with the products or services acquired” (Ha et al., 2022) and is an important factor in consumers' decision to buy or use; so it is necessary to examine this (Kim & Choe, 2019). Herbal products as one of many traditional products which may bring about potential benefits for consumers which have been identified as relative benefits as compared with chemical-based products (Marimuthu, 2019).

Accordingly, if an individual perceived a higher degree of benefits, he/she would be more likely to consume herbal products.

Evidence from prior studies has shown that perceived benefit exerted a positive and significant effect on customers' behavioral intention (Osburg et al., 2020; Lee, Jung & Lee, 2021). Hence it is hypothesized that:

H2: Perceived benefits positively influence herbal products consumption

The Mediation of Perceived Value on the Relationships Between Perceived Product Quality, Perceived Benefits, and Herbal Product Consumption towards Herbal Products

Perceived value has proven to be a difficult concept to define and measure (Suingh & Alok, 2021; Jiang & Hong, 2021). As been mentioned by Ahn and Thomas (2020), perceived value is the results or benefits customers receive in relation to total costs (which include the price paid plus other costs associated with the purchase). In simple terms, value is the difference between perceived benefits and costs. Value becomes the common perspective of perceived value and perceived benefits in literature (Vidya & Selvamani, 2019).

According to Broekhuizen and Jager (2004) and Jin, Seong and Khin (2020), some consumers depend not only on the quality of a product but also on the value of the product. Past research revealed that perceived value mediated the relationship between consumer preferences and willingness to buy (Maina, Kibera, & Munyoki, 2015). Other studies have also examined perceived value as a mediating variable between quality and customer satisfaction (Hapsari et al., 2016). Zarei (2019) also found the mediation of perceived value in explaining the effect of the high price on purchase intention.

Wang et al. (2019) concurred with Hassan, Maghsoudi and Nasir (2016) that perceived quality has a positive relationship with perceived value, which is subsequently associated with purchase behavior. On the other hand, Marakanon and Panjakajornsak (2016) also have provided a structure for the interactions between value and benefits towards consumer behaviour.

In addition, the perceived value from a profit perspective reflects the cumulative sacrifices made to receive a product or service benefit other than money (e.g.; purchasing time, transaction costs, and search costs). The following hypotheses are therefore set out to be tested:

H3a: Perceived value mediates the relationships between perceived product quality and herbal products consumption.

H3b: Perceived value mediates the relationships between perceived benefits and herbal products consumption.

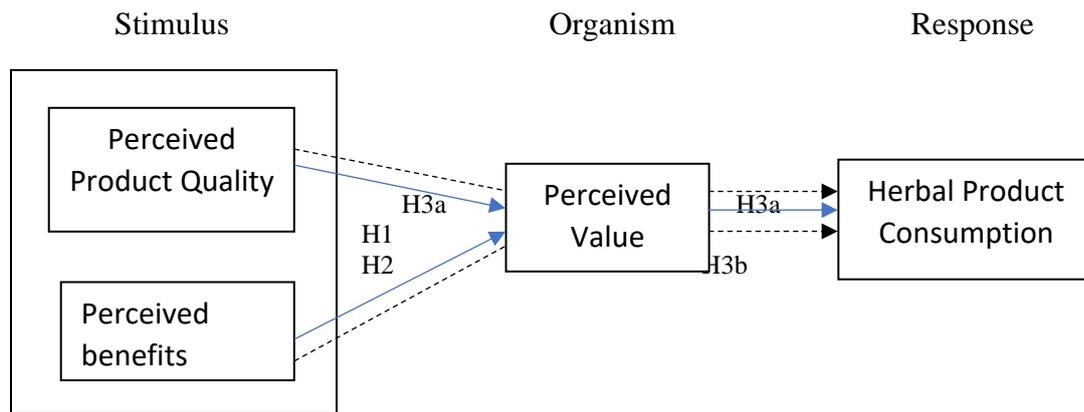


Figure 7: The research framework

Methodology

This study adopted a quantitative approach in order to test the hypotheses and validate the propose framework. Respondents were approached online due to the Covid-19 lockdown and movement control order implemented by the government since March 2020, therefore, the data collection procedures were carried out using convenience sampling method via an online platform.

The items for consumption behavior construct were adopted from previous research by Wee et al., 2014. Perceived value was assessed using measurements adapted from Widyastuti and Santoso (2016). As for the concept of perceived product quality, the scale composed of seven items developed by Wee et al., (2014) and Jaafar et al., (2013). Finally, seven items developed by Rezai et al., (2017) and Bredahl (2000) were employed to measure perceived benefits which intended to assess the degree to which individuals assess the benefits of consuming herbal products.

Findings

A total of 400 questionnaires were distributed via an online platform and out of that 322 responded or 80.5 per cent responded well to the questions and these questionnaires were being used for data analysis. However, due to the screening question asked at the beginning of the question which required them to respond on their awareness of herbal products, only 252 or 78.3 per cent responded to yes while the remaining 70 or 21.7 per cent answered no. Therefore, only 252 questionnaires which equal to 78.3 per cent were usable and proceeded to the data analysis step.

SmartPLS 3.0 was used as the tool for PLS-SEM. This study follows a two steps approach which are measurement model (outer model) and structural model (inner model). Prior to hypothesis testing, the initial assessment on measurement model or called outer model was done. The measurement model identifies the relationship between the constructs. The convergent validity, AVE and discriminant validity are the assessments need to be done in measurement model (Hair, Hult, Ringle, & Sarstedt, 2014). Table 1 below shows the AVE, CR and Cronbach's Alpha of the constructs.

Table 1: *AVE, Composite Reliability and Cronbach's Alpha*

Construct	No. of items	AVE	CR	CA
Herbal Product Consumption (HERB)	3	0.654	0.850	0.735
Perceived Benefits (PBEN)	6	0.646	0.916	0.890
Perceived Products Quality (PQ)	4	0.736	0.918	0.880
Perceived Value (PV)	4	0.645	0.879	0.815

Fornell-Larcker's criterion was used to measure the discriminant validity. This method is the most conservative approach which compares the square root of the AVE with the latent variable correlations (Hair et al., 2018). The square root of AVE for all constructs are placed at the diagonal elements of the correlation matrix.

Table 2: *Fornell-Larcker Criterion - Discriminant Validity Analysis*

Construct	Herbal Consumption (HERB)	Products Benefits (PBEN)	Perceived Benefits (PBEN)	Perceived Product Quality (PQ)	Perceived Value (PV)
Herbal Consumption (HERB)	0.809				
Perceived Benefits (PBEN)	0.452	0.803			
Perceived Product Quality (PQ)	0.561	0.799	0.858		
Perceived Value (PV)	0.523	0.653	0.763	0.803	

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations

Table 3: *HTMT Criterion*

Construct	Herbal Consumption (HERB)	Products Benefits (PBEN)	Perceived Benefits (PBEN)	Perceived Product Quality (PQ)	Perceived Value (PV)
Herbal Consumption (HERB)	0.543				
Perceived Benefits (PBEN)	0.688	0.903			
Perceived Product Quality (PQ)	0.671	0.762	0.897		
Perceived Value (PV)					

Next is the assessment of structural model through the bootstrapping analysis (Streukens & Werelds, 2016). In this study, 1000 subsamples through bootstrapping was done and the result of the structural model is as illustrated as in Table 4. Table 5 showed the result of mediating effect of perceived value to the constructs.

Table 4: Path Coefficients and Hypotheses Testing

Hypothesis	Relationship	Path coefficients	Std. Error	t-value	p-value	Decision
H 1	Perceived product quality -> Herbal product consumption	0.444	0.113	3.937	0.000	Supported
H 2	Perceived benefits -> Herbal product consumption	0.030	0.114	0.261	0.794	Not supported

Table 5: Mediating Effects of Perceived Value towards Herbal Products Consumption

No	Relationship	Std. Beta	Std. Error	t-value	Confidence Interval (BC)		p-value	Decision
					LL	UL		
H3a	PQ -> PV -> HERB	.291	.073	4.004	.168	.455	.000	Supported
H3b	PBEN -> PV -> HERB	.015	.047	0.314	-.088	.098	.754	Not supported

Note: BC= Bias corrected, UL=Upper level, LL=Lower level

As indicated in various analyses above, one out of two hypotheses was accepted as being positively significant. Two hypotheses were tested for mediating effects and only one was supported.

Discussion

The study findings indicated that only perceived product quality significantly influenced consumers' consumption behaviour of herbal products. Whilst perceived benefits showed the insignificant results in influencing the consumption behaviour of herbal products. Consumers' perceptions of herbal product quality are based on their own experiences with the items. As a result, people developed their own opinions about the quality of herbal goods, which has an impact on their usage. This is consistent with Bansal, (2016) and Porral and Lang (2015). This is so because the quality of a product is a subjective evaluation of the degree of the overall excellence of the total product (Toivonen, 2012). It is therefore expected that rational consumers choose the product providing the highest value with regard to the utility that the total product provides them (Witek-Hajduk & Grudecka, 2018).

Perceived product benefit was not significantly related to consumption behavior of herbal products. This is inconsistent with Osburg et al., (2020) and Lee, Jung and Lee, (2021) who found that perceived benefit exerted a positive and significant effect on customers' behavioral intention and herbal products is regarded as one of many traditional products which may bring potential benefits for consumers as compared with chemical-based products (Marimuthu, 2019). One possible explanation for this result could be that consumer consumption behavior of herbal products may vary according to different usage situations, as consumers might buy different types of a brand for different usage situations or purposes (Bian, 2016).

Low perception of benefits could incur a low consumption behaviour of herbal products and vice-versa. Thus, the outcome of this study indicated that consumers did not put doubt in the context of consuming or purchasing herbal products, since the differences in product features and attributes were minimal, each brand is substitutable. Thus, perceived benefits is not a factor that influences consumers' consumption behaviour towards herbal products.

The positive relationship between perceived product quality and perceived benefits is consistent with findings of Moghavvemi et al., (2018) and Sawitri & Alhasin (2022) who found perceived benefit has a positive influence on perceived product value and perceived value is realized by added value and expected outcome. The underlying reason to justify the significant effect of perceived product quality on perceived value is because perceived quality can be considered as a trade-off between consumers' evaluation of the benefits of consuming or purchasing a product and the sacrifice made to consume and purchase a product.

The findings demonstrate that perceived benefits were not significantly related to perceived value. This result is inconsistent with Arora and Aggarwal (2018) who concluded that perceived benefit toward product uses significantly affect consumer perception on the product's value. The insignificant relationship might be resulted due to the different nature of herbal products. As the nature of herbal products are more inclined towards hedonic nature hence the hedonic benefits of herbal products are found more suitable for fulfil a functional and purposeful need.

This study showed that there is a mediation effects of consumers' perceived value on the relationship between perceived product quality on consumers' consumption behaviour towards herbal products. This indicates that the relationship between perceived product quality on consumption behavior significantly affected by the perceived value of the consumers. The significant mediating effect of perceived value on the relationship between perceived product quality and consumption behavior is consistent to previous studies by Maina et al., (2015) and Hapsari, Clemes, and Dean, (2016). However, it runs contradict with Ryu, Lee, & Kim, (2012) where perceived value was not a significant mediator between perceived product quality and consumer purchase behaviour.

Next, the analysis undertaken revealed no significant effect of perceived value on the link between perceived benefits and the consumers' consumption behaviour towards herbal products. Statistically, the insignificant mediation effect of perceived value is due to the non-significant relationship between perceived benefits and perceived value. This demonstrates that the association between perceived benefits and the consumers' consumption behaviour of herbal products is not significant and not affected by consumers' perceived value. This result supports the finding by with Kakkos, Trivellas, and Sdrolias, (2015) and Ahmad and Omar (2018). Thus, perception of value has an insignificant role in mediating the relationship between perceived benefits and the consumers' consumption behaviour of herbal products. This result may be explained by the fact that consumers are keener on consuming herbal products without prejudice in consideration of the benefits given by the products.

Managerial Implications

This study has contributed to this discussion through a novel understanding on what determines the consumers' perception towards accepting the herbal products. It was found that perceived

product quality and product safety are important factors to create a state of value and confidence to accept the product and later consumed the product. Thereby, it can be argued that the effort of introducing herbs-based healthcare products to consumers should first build on product acceptability among consumers by informing and educating the consumers about the product quality and safety and advantages of using the product. This study provides the basis to enhance the awareness of stakeholders on herbal medicine as well as complementary and traditional medicine consumption, as a whole.

Marketers and complementary and traditional health practitioners, armed with this knowledge, could prepare and implement their marketing campaigns and health initiatives efficiently. Marketing strategy should concentrate on promoting the various benefits of using herbal medicine in order to engage with the prospect consumers and turning short-term customers to become long-term customers. Further, marketers and practitioners could plan for more valuable during- and after-sales services to enhance the perceived value of users, particularly the young adults, who were appreciating multi-dimensional perceived value. Taken together, the findings suggest the role for marketers in promoting and marketing the herbal products to the right target market or consumers.

As a marketer, spending a huge amount of money to enhance consumers' perception of product quality is crucial. It is critical that they have a clear understanding of the role of product quality to enrich their products. Perhaps an improvement in promotional strategies which emphasized on the quality could lift the consumption of herbal products and create a positive effect on retailers (Tan et al., 2020). Ensuring the quality of herbal products is a process which requires quality control and quality assurance from the moment of cultivation to the final product. There are many pre- and post-harvesting processes and manufacturing factors which can affect the level of active constituent(s) within a plant.

Manufacturers of herbal products are recommended to consider these factors to ensure that the quality of herbal products will be the same as conventional medicines. In addition, currently many herbal products have a traditional herbal registration or manufacturing authorization. This standardization of herbal products may eliminate the concerns associated with quality of herbal products and ensure their safety to consumers.

For the policy makers, the quality of herbal products cannot be determined from only analyzing a specific marker and comparing this to the product label claim. To determine the true quality of herbal products, ideally all the contents of the product need to be analyzed. Further investigations should involve analysis of all the components within a product to determine the quality. A more detailed legislation about the intellectual property of herbal drugs is urgently needed. The concern and difficulties related to the patenting of herbal medicines have precluded the financial incentives that could be provided to pharmaceutical industries.

The findings of this study may prove useful as a rough guide to some of the factors needed to be addressed when considering the marketing of herbal products. As the government is pushing for the advancement of the herbs industry, the marketing of herbal products is essential in opening up new avenues of the entrepreneurs.

Theoretical Implications

The contribution of this research lies in identifying multiple ways through which product characteristics namely perceived quality, perceived benefits and perceived value on consumption behavior, particularly in the context of herbal products. The present research contributes to the literature by investigating the factors influencing consumers to consume traditional medication. It gives an indication how marketers can strategize their marketing efforts to boost the consumers' acceptance towards herbal products. The contribution of the current study to the literature involved in examining the consumption of herbal products specifically among consumers in Malaysia. The modified models thus created a framework that could lead to consumers' behavior towards consumption of herbal products. This research developed and confirmed a framework for the consumption of herbal products from the consumers' perspective in Malaysia.

Conclusions

This study contributed valuable knowledge, by empirically investigating the characteristics of herbal product consumers and the underlying factors that influence their consumption behavior. This study also suggested that perceived product quality could usefully predict consumer to consume the herbal products. The implications of this study is helping the marketers and practitioners to plan for better marketing strategies in attracting and engaging with consumers. In improving the perception of the herbal products, retailers or product manufacturers could restructure their strategies, improve research and development of their products, concentrating on factors such as safety, ingredient and discovery of the target market so that they would be able to compete in the market.

References

- Adhi, B. W., Setyawati, S. M., & Suwandari, L. (2022). The Effect of Trust, Perceived Benefit Perception and Religiosity in the Continuity Intention of OVO-Digital Wallet Services. *Sustainable Competitive Advantage (SCA)*, 11(1), 18-25.
- Ahn, J., & Thomas, T. K. (2020). The role of customers perceived values of integrated resort brands in destination. *Journal of Destination Marketing and Management*, 15, 100403.
- Ahmed, I., Hasan, M., Akter, R., Sarkar, B. K., Rahman, M., Sarker, M. S., & Samad, M. A. (2020). Behavioral preventive measures and the use of medicines and herbal products among the public in response to Covid-19 in Bangladesh: A cross-sectional study. *PLoS One*, 15(12), e0243706.
- Ahmad, S. N. B., & Omar, A. (2018). Influence of perceived value and personal values on consumers repurchase intention of natural beauty product. *International Journal of Supply Chain Management*, 7(2), 116-125.
- Alamsyah, D., Othman, N., Bakri, M., Udjaja, Y., & Aryanto, R. (2021). Green awareness through environmental knowledge and perceived quality. *Management Science Letters*, 11(1), 271-280.
- Bansal, R. (2016). Consumer behavior towards herbal cosmetics in India. In *5th International Symposium on "Fusion of Science & Technology"* (pp. 533–537).
- Dardak, R. A. (2015). Transformation of Agricultural Sector in Malaysia Through Agricultural Policy. *Strategic Planning and Innovation Centre, MARDI*.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least*

- squares structural equation modeling (PLS-SEM)*. Thousand Oaks, California: Sage Publication.
- Hapsari, R., Clemes, M., & Dean, D. (2016). The mediating role of perceived value on the relationship between service quality and customer satisfaction: Evidence from Indonesian airline passengers. *Procedia Economics and Finance*, 35(October 2015), 388–395. [https://doi.org/10.1016/S2212-5671\(16\)00048-4](https://doi.org/10.1016/S2212-5671(16)00048-4)
- Kakkos, N., Trivellas, P., & Sdrolas, L. (2015). Identifying Drivers of Purchase Intention for Private Label Brands. Preliminary Evidence from Greek Consumers. In *Procedia - Social and Behavioral Sciences* (Vol. 175, pp. 522–528). Elsevier B.V. <https://doi.org/10.1016/j.sbspro.2015.01.1232>
- Lee, S. E., Jung, H. J., & Lee, K. H. (2021). Motivating collaborative consumption in fashion: Consumer benefits, perceived risks, service trust, and usage intention of online fashion rental services. *Sustainability*, 13(4), 1804.
- Lee, D. Y. W., Li, Q. Y., Liu, J., & Efferth, T. (2020). Traditional Chinese herbal medicine at the forefront battle against COVID-19: Clinical experience and scientific basis. *Phytomedicine*, 153337.
- Liang, A. R.-D., & Lim, W.-M. (2020). Why do consumers buy organic food? Results from an S-O-R model. *Asia Pacific Journal of Marketing and Logistics*. <https://doi.org/10.1108/APJML-03-2019-0171>
- Liu, C. X. (2021). Overview on development of ASEAN traditional and herbal medicines. *Chinese Herbal Medicines*, 13(4), 441-450.
- Liu, M. T., Liu, Y., & Mo, Z. (2020). Moral norm is the key: An extension of the Theory of Planned Behaviour (TPB) on Chinese consumers' green purchase intention. *Asia Pacific Journal of Marketing and Logistics*, 32(8), 1823-1841.
- Maina, S. M., Kibera, F. N., & Munyoki, J. M. (2015). Influence of perceived value on the relationship between consumer national ethnocentrism and willingness to buy commercial banking services in Kenya. *European Scientific Journal*, 11(19), 100–114.
- Marimuthu, M. (2019). Young mothers' acceptance of herbal food supplements: Centred on preventive health behaviour for children. *Journal of Retailing and Consumer Services*, 51, 311–319. <https://doi.org/10.1016/j.jretconser.2019.06.019>
- [Osburg, V.S.](#), [Yoganathan, V.](#), [Brueckner, S.](#) and [Toporowski, W.](#) (2020). How detailed product information strengthens eco-friendly consumption. *Management Decision*, 58 (6), 1084-1099.
- Pauzi, N. A. M., Cheema, M. S., Ismail, A., Ghazali, A. R., & Abdullah, R. (2021). Safety assessment of natural products in Malaysia: current practices, challenges, and new strategies. *Reviews on Environmental Health*, 14(1), 28-35.
- Porrall, C. C., & Lang, M. F. (2015). Private labels: The role of manufacturer identification, brand loyalty and image on purchase intention. *British Food Journal*, 117(2), 506–522. <https://doi.org/10.1108/MBE-09-2016-0047>
- Ramli, N. N., & Arumugam, N. (2021). Customers' Awareness and Attitude in Purchasing Herbal Products in Kuala Terengganu. *Journal of Agrobiotechnology*, 12(1S), 14-20.
- Rezai, G., Sumin, V., Mohamed, Z., & Nasir, M. (2016). Implementing Green Practices as Sustainable Innovation Among Herbal-Based SME Entrepreneurs Implementing Green Practices as Sustainable Innovation Among Herbal-Based SME Entrepreneurs, 4446(January).
- Rezai, G., Teng, P. K., Shamsudin, M. N., Mohamed, Z., & Stanton, J. L. (2017). Effect of perceptual differences on consumer purchase intention of natural functional food. *Journal of Agribusiness in Developing and Emerging Economies*, 7(2), 153–173.
- Richardson, P. S., Jain, A. K., & Dick, A. (1996). Household store brand proneness: A

- framework. *Journal of Retailing*, 72(2), 159–185. [https://doi.org/10.1016/S0022-4359\(96\)90012-3](https://doi.org/10.1016/S0022-4359(96)90012-3)
- Ryu, K., Lee, H., & Kim, W. G. (2012). The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions. *International Journal of Contemporary Hospitality Management*, 24(2), 200–223. <https://doi.org/10.1108/09596111211206141>
- Salem, M. A., & Nor, K. M. (2020). The effect of COVID-19 on consumer behaviour in Saudi Arabia: Switching from brick and mortar stores to E-Commerce. *International Journal of Scientific & Technology Research*, 9(07), 15-28.
- Sawitri, S., & Alhasin, A. (2022). Online music business: The relationship between perceived benefit, perceived sacrifice, perceived value, and purchase intention. *International Journal of Research in Business and Social Science*, 11(5), 111-126.
- Shahab, M. H., Ghazali, E., & Mohtar, M. (2021). The role of elaboration likelihood model in consumer behaviour research and its extension to new technologies: A review and future research agenda. *International Journal of Consumer Studies*, 45(4), 664-689.
- Streukens, S., & Leroi-Werelds, S. (2016). Bootstrapping and PLS-SEM: A step-by-step guide to get more out of your bootstrap results. *European Management Journal*, 34(6), 618–632. <https://doi.org/10.1016/j.emj.2016.06.003>
- Tan, T. Y. C., Lee, J. C., Mohd Yusof, N. A., Teh, B. P., & Syed Mohamed, A. F. (2020). Malaysian herbal monograph development and challenges. *Journal of Herbal Medicine*, 23, 100380. <https://doi.org/10.1016/j.hermed.2020.100380>.
- Witek-Hajduk, M. K., & Grudecka, A. (2018). Positioning strategies of retailers' brands in the emerging market – a cluster analysis. *International Journal of Emerging Markets*, 13(5), 925–942.
- Ya'akob, H., Lim, J. R., & Hashim, N. A. (2018). Current Scenario of Herbal Industry in Malaysia. *Journal of Engineering and Science Research*, 2(3), 7–13. <https://doi.org/10.26666/rmp.jesr.2018.3.2>
- Yahya, S., & Mokhtar, M. (2022). Motivational Factors Underlying the Intention of Herbal Soap Entrepreneurs to Obtain Halal Certificate In Malaysia. *Journal of Fatwa Management and Research*, 27(1), 1-14.

COVID-19 IMPACTS ON THE RETAIL BUSINESS: A CASE OF ZARA

Intan Shafinaz AHMAD¹, Maggie TEE²

^{1,2}*Universiti Utara Malaysia*

Abstract. The retail industry is one of the most impacted by the outbreak of Covid-19 in 2020. Zara, a company belongs to Inditex is one of the biggest players in retail industry that was hit hardest especially during the initial outbreak. This article discusses the impact of Covid-19 pandemic on the retail industry. It also highlights business performance of Zara and strategies undertaken by the company to safeguard its business during the pandemic. It is showed that Zara's revenue had declined due to Covid-19 but its online sales increase dramatically due to the shift of buying behaviour of consumer and digital transformation implemented by the company. This article concludes with an outlook after the pandemic.

Keywords: Covid-19, fashion retailer, Zara, post-pandemic.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: intan253@gmail.com

Introduction

The Covid-19 pandemic spreads rapidly around the world, giving a huge impact on almost every industry across the global economy. For fashion industry, year 2020 changed almost everything. Due to health concerns, the government has implemented a lockdown with strict measures such as social distancing and movement restrictions to reduce local transmission of virus (Jung & Jeon, 2021). This has caused many non-essential retail businesses to suffer as a result of temporary store closures since they are unable to operate as usual.

This paper aims to discuss how Covid-19 impacts the retail industry and how a global fashion retailer like Zara responded to business challenges during the pandemic. Since this is a descriptive study in nature, therefore secondary data was collected from published case study, research reports, blogs, online articles, company's annual report, and company's website.

Overall impact of the pandemic to retail industry

The covid-19 pandemic has negatively impacted business globally, be it small and medium-size company (Naeem, 2020). This means that Covid-19 has hit the fashion industry hard too over the past 3 years. The industry suffered the worst year record whereby almost three-quarters of listed companies lose their money (Dawar & Bishnoi, 2021). The impact of Covid-19 pandemic on retail business however, can be observed from both positive and negative perspectives. An increase in sales was one of the positive impacts. But this only limits to online sales. Griffith, Levell, and Stroud (2020) claimed that few retail companies that developed agile, high-performing digital selling platforms are greatly benefited from the online shopping. Although face-to-face services were prohibited, but e-commerce is getting popularity due to the advancements of technology that allow business to continue operating.

In Malaysia for instance, the Department of Statistic Malaysia (DOSM) reported that e-commerce income nearly doubled in three years, from RM447.8 billion in 2017 to RM896.4 billion in 2020 (KKMM, 2020). The rationale is, during lockdown, most people worked from home, some exploring new hobbies while staying at home and this has created new opportunities for e-commerce business. Despite positive impacts, the negative impacts can also be observed. Apart from essential retail businesses such as water, electricity, and food supply, many other stores were forced to shut down when the government issued the lockdown order. Those retailers that focused on physical stores were greatly negatively impacted according to Jung and Jeon (2021). Due to no revenue during this period, business might face several problems such as lack of money to pay bills and the need to cut costs by laying off employees.

To some retail businesses that need to be closed down and discontinue production, Covid-19 crisis has caused them to cancel orders from suppliers (Kim & Woo, 2021) and therefore resulted in retail business facing ethical issues in the form of criticism for not being responsible to employees and suppliers (Cernansky, 2020). Besides, retailers which refuse to digitalize their business will continue to suffer. This is because physical shopping can be a hassle due to restriction in business operating hours and at the same time it requires retailers to strictly comply with the standard operating procedure (SOP). Covid had caused people more likely to purchase online to fulfil their needs and wants, resulting in slow retail sales.

Zara and Its' Business Performance

Zara is a well-known apparel retailer that specializes in fast fashion, offering a wide range of trendy products at affordable prices. It is owned by Inditex and it is a flagship brand to the

company. Inditex is a multinational corporation headquartered in Galicia, Spain. The company is well-known as the world's largest fashion groups. From its first store opened in 1975, Zara has now expanded to over 2000 outlets in 96 countries across the world. The merchandise that Zara offers in both physical and online stores includes apparel, accessories, shoes, swimwear, beauty products and perfumes.

Zara's performance was excellent with massive daily sales and a significant rise in inventory turnover which shows a healthy financial status before the outbreak of Covid-19. Although Inditex has eight distinct brands, Zara is the company's major source of income, accounting for at least 60% of the total sales. The revenue of Zara has continuously increase year after year from €10.80 billion in 2013 to €19.56 billion in 2019 (Statista, 2021).

After the pandemic, Zara's revenue has declined by 27.78% from €19.56 billion in 2019 to €14.13 billion in fiscal year 2020 according to 2020 Inditex Group's Annual Report. Lockdown, social distancing, and stay at home order have prevented consumer from visiting physical store, thus have changed their buying behaviour greatly (Jung & Jeon, 2021). Many businesses are forced to shut down during lockdown, people become jobless and rely on personal savings to survive. Customers tend to purchase necessities such as groceries and health supplements rather than expensive items like the latest fashion items. Despite a decline in Zara's overall profit, online sales in the first half of 2020 for that company increased by 74%. The number of single-day orders also exceeded one million for the first time as a result of movement restrictions that only allow people to shop online (Inditex, 2020).

Strategies Implemented by Zara

Although people are encouraged to work from home, industries especially fashion and entertainment retailers are still facing difficulty to survive owing to the economic crisis. Higher unemployment rate has made the nation economy become worse hence reduce people's spending power. Because of this, Zara has to redesign its business plan and adapt to the new changes in order to safeguard its business during the pandemic.

As the online revenue remain high despite temporary store closures, Zara had launched an innovative Store Mode on its application that integrates in-store and digital platforms (Retail Insight, 2021). The application allows customers to access any physical store (through online browsing) and only displays the available products and sizes of that specific store in real time. With a 'Click and Go' function, customers can purchase items in-app and pick them up in-store within 30 minutes. The 'Click & Find' function in the app uses geolocation to navigate customers the exact location of products in-store via an on-screen map. This can minimize the time spent on searching or engage with the store assistant. Customers may utilize the 'Click and Try' function to reserve a fitting room and skip the queue by scanning a QR code. QR code is used at checkout as digital receipts and will be automatically stored in the apps for easy recall and it can also the environment by reducing paper waste (Retail Insight Network, 2021). In short, Store Mode is not only intended to bring convenience but also to make shopping safer during the pandemic by limiting physical interaction.

Apart from that, Zara is a vertically integrated retailer that manages the entire process which include design, production, distribution and marketing of all products by itself without third-party suppliers (Thomas, 2021). Due to the flexibility and efficiency of its supply chain, Zara is able to meet changing customer demands within a short time and thus responds quickly to the market trends. As a result, Zara manufactures more than 450 million products each year

with new designs being launched every two weeks on average. That is why Zara is called “fast fashion” retail apparel industry as they are able to keep up their stock and follow upcoming trends at a rapid pace.

According to Shabir and AlBishri (2021), the greatest contributor for Zara’s success even during the pandemic is its unique operating model that focuses on the business’ three pillars which are flexibility, digital integration, and sustainability. Zara is efficient and agile when it comes to supply chain, production, and retail network and these has enabled the company to respond faster to changing customer demands, thus improved its performance in terms of its competitiveness and customer satisfaction even during the hardest time.

Besides, Zara developed its first minimalist clothing and homewares series in cooperation with the Danish brand Kassl Editions to further enhance its reputation and uniqueness (Retail Insight Network, 2021). Zara has also accelerated its commercial initiatives to keep up with the trends of customer preferences, launching a new SRPLS capsule collection inspired by a nautical theme (Inditex, 2020).

To further enhancing the quality of customer service, Inditex has equipped Zara stores with Radio Frequency Identification Technology (RFID), using cutting-edge systems to track the location of garments instantly and making the most in-demand items rapidly available to customers. This is one of the reasons for the firm’s success. The integrated stock management has allowed Zara to operate with even lower inventory levels while improving the overall customer shopping experience.

Another move made by Inditex (as parent company for Zara) is closing up its 1200 smaller-sized stores in which it aims to put more effort on e-commerce. At the same time, the company plans to open 450 new high-quality and larger outlets in premium locations. It expects online sales to account for more than a quarter (25%) of total sales by 2022 compared to 14% in 2019. The larger stores will then act as distribution hubs for online store (Ziady, 2020).

Conclusion and Future Outlook

Covid-19 pandemic has transformed the way retailers are doing their business. From mass store closures and strict occupancy limitations, to demand challenges and global supply shortages, both retailers and consumers all over the world were forced to change. Many retailers have to change their business from running physical stores to utilizing online platforms and even run both. Transforming is tough as it requires not only longer time to adapt but also the ability to overcome challenges. However, it is an opportunity for retailers to learn more and enter a global market with wider target market even at low costs if they are able to keep themselves abreast with the changes in the business environment. The key is understanding the trend or crises and making use of the technology.

For the future outlook of overall retail industry, digital transformation is a must. Every retailer knows that they must change in order to stay competitive. There are numerous technology options available for retailers, but with a need for precision retail services like inventory tracking, shopping analytics and even store model upgrades, selecting the right tools and partners are more critical than ever. Understanding which trends are likely to remain strong even after the pandemic can help retailers anticipate customer expectations while embracing open, scalable and agile technology to ensure that they are ready for whatever that might

happen in the future (Peterson, 2021). In view of this, retailers should take advantage of today's technologies to discover new possibilities in future.

It is expected that this paper will be useful for similar type of retail business to learn about the survival of another fashion retailer during the pandemic. Post-pandemic might be more challenging especially for retailers that had lost their customers' loyalty due to Covid-19.

References

- Abeam (2020). The impact of COVID-19 on the retail industry and the next actions to be taken. (n.d.). Retrieved from ABeam Consulting https://www.abeam.com/my/en/topics/insights/covid19_retail
- Crick, J. M., & Crick, D. (2020). Coopetition and COVID-19: Collaborative business-to-business marketing strategies in a pandemic crisis. *Industrial Marketing Management*, 88(July), 206-213.
- Griffith, R., Levell, P., & Stroud, R. (2020). The impact of COVID-19 on share prices in the UK. *Fiscal Studies*, 41(2), 363-369.
- Inditex (2020). Returns to profitability and generates €734 million net cash in the second quarter. Retrieved from Inditex: <https://www.inditex.com/en/article?articleId=653527&title=Inditex+returns+to+profitability+and+generates+%E2%82%AC734+million+net+cash+in+the+second+quarter>
- Inditex (2020). Inditex Group Annual Report 2020. Spain: Industria de Diseño Textil, S.A.
- Jung, K-J. & Jeon, B-H. (2021). The negative effect of the Covid-19 pandemic on the acceleration of startup innovation in the retail shopping chain. *Journal of Distribution Science*, 19(9), 79-90.
- KKMM (2020). E-Commerce income nearly double to almost RM900 bil in 2020. Retrieved from Ministry of Communications and Multimedia Malaysia: <https://www.kkmm.gov.my/en/public/news/19399-e-commerce-income-nearly-doubled-to-almost-rm900bil-in-2020>
- Naeem, M. (2020). Understanding the customer psychology of impulse buying during COVID-19 pandemic: Implications for retailers. *International Journal of Retail & Distribution Management*, 49(3), 377-393.
- Petersen, B. (2021). Four Trends Reshaping The Future Of Retail. Retrieved from Forbes Technology Council: <https://www.forbes.com/sites/forbestechcouncil/2021/06/23/four-trends-reshaping-the-future-of-retail/?sh=5a68ee174639>
- Retail Insight Network (2021). Zara's stylish reputation leads Inditex close to recovery. Retrieved from Retail Insight Network: <https://www.retail-insight-network.com/comment/zara-inditex-recovery/>
- Shabir, S., & AlBishri, N. A. (2021). Sustainable retailing performance of Zara during Covid-19 Pandemic. *Open Journal of Business and Management*, 09(03), 1013-1029.
- Shearsmith, T. (2021). Zara launches innovative Store Mode technology in UK. Retrieved from The Industry. Fashion: <https://www.theindustry.fashion/zara-launches-innovative-store-mode-technology-in-uk/>
- Statista (2021). Net sales of the Inditex Group worldwide from 2013 to 2020, by format (in million euros). Retrieved from <https://www.statista.com/statistics/456505/sales-inditex-group-worldwide-by-format/>
- Thomas, S. (2021, December 01). Zara Marketing Strategy - To Be the World's Top Fashion Retailer. Retrieved from Avada: <https://avada.io/resources/zara-marketing-strategy.html>

Ziady, H. (2020). The Zara retail empire is spending \$3 billion on its post-pandemic future. Retrieved from CNN Business: <https://edition.cnn.com/2020/06/10/business/zara-inditex-online-investment/index.html>

<https://www.inditex.com/about-us/our-brands/zara>

<https://www.rfidcard.com/zara-implements-rfid-technology-in-its-store/>

**MALAYSIAN BABY BOOMER'S PURCHASE INTENTION THROUGH SOCIAL
MEDIA AND E-COMMERCE PLATFORM DURING GLOBAL PANDEMIC:
A PROPOSED FRAMEWORK**

Azrain Nasyrah MUSTAPA¹, Hendrita a/p DAVID²

^{1,2}*Universiti Utara Malaysia*

Abstract. This concept paper is to study the relationship of Malaysian Baby Boomer's Purchase intention through social media and e-commerce platform during global pandemic. This paper sets out a framework that illustrates the relationship between purchase intention and facilitating condition, price value and habit. The proposed framework is based on the scope literature review. It is clear that the baby boomers are not open to the idea of online purchasing as much as the younger generations. This might be due to a lot of reasons such as the challenge to learn to utilise the technological devices, the comfort of traditional methods and fear of falling for online scams. This can be challenging and discouraging for the online businesses that include baby boomers as their target customers. This research study aims to examine the factors behind the purchasing pattern of the Malaysian baby boomers via online during the global pandemic to give an idea to the purchase intentions of the baby boomers.

Keywords: Purchase intention, baby boomers, social media, global pandemic.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email azrain@uum.edu.my

Introduction

The Covid-19 pandemic took over the world in 2020. The pandemic hit every country around the globe in the span of a few months and Malaysia was no exception to the case. The follow-on impacts of the global pandemic were brutal to say the least. The biggest impact being the lockdown rule that was enforced throughout the country. The lockdown lasted a total of two years in Malaysia. Everyone was greatly affected by the rule. This mainly includes business as well as government sectors. The sectors affected include manufacturing, financial, tourism, health, education and many more.

During the global pandemic, the people of Malaysia were restricted from doing most kind of daily life things. People were restricted from even going out of the house. This have caused the public to resort to online shopping. The situation has forced everyone to use technology to do the simplest chore such as purchasing groceries whether they like it or not. The pandemic has been an eye-opening experience for a lot of people, especially the baby boomers in Malaysia. This is because, baby boomers are well known for being against the technological devices and the internet since the very beginning. The global pandemic has shown that technology is crucial and is helpful at times of needs. This has pushed the baby boomers of this country to get on board without much of a choice. They were also forced to adapt to these changes to survive the global pandemic (Wu, Chen, & Chan, 2020).

The graph below (Figure 1) shows the age ranges of all the groups of people. Here, we understand that the age group of Baby Boomers are from 50 to 60 years old.

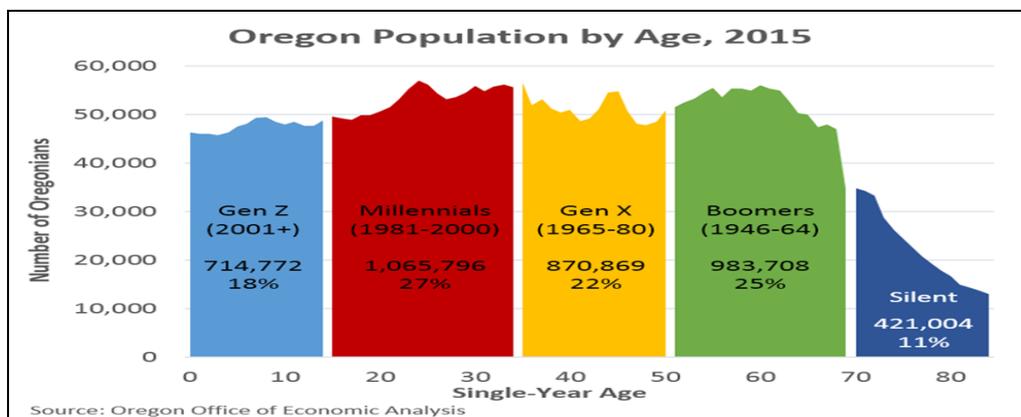


Figure 1: Graph the age ranges of all group of people

During the global pandemic, the amount of purchasing through social media platforms and e-commerce have skyrocketed. Even after the pandemic, most people still prefer purchasing through social media platforms and e-commerce. It is safe to say that the country's economy is now mostly depending on these platforms. The convenience of not having to leave the house and having the products or services arrive at your door without much of a human contact is extremely appealing to a lot of people in Malaysia. The convenience in terms of the payment processes have also contributed to the point of online shopping addiction within a certain group of people. It is safe to say that online purchasing culture is hot among the younger generations in comparison to the baby boomers (Ranjan, Misra, & Yadav, 2021).

Literature Review

Purchase Intention

Baby boomer's consumer purchase intention through social media is the dependent variable in this research study as this research study aims to identify the factors that play the most important or most huge role in contributing to the findings and statistics that baby boomers in Malaysia simply do not engage in or are fond of the idea of purchasing products and even services through the means of online platforms such as social media platforms and e-commerce websites. First things first, we need to understand the true meaning behind purchase intention. Purchase intention refers to the willingness and the readiness of the customers to acquire to or buy a certain product or a certain service. To put it simply, it is the attitude of the customers towards wanting to purchase a certain product or service. Of course, the attitude of the customer depends heavily on several things. Purchase intention is a very important metric or factor when it comes to business especially to the marketing team of a business. This is because the purchase intention is the key ingredient that will determine whether the customer is going to be drawn towards the product/service or away from the product/service.

Therefore, to make sure the business is relevant and is able to compete in the marketplace, the marketing team of the business will need to analyse the situation through the point of view of the customers. They will do that by analysing the purchase intention. Purchase intention will be able to provide a good idea as to the whys and the how's of the entire marketing and promotion process of the business. Therefore, it is safe to say that purchase intention data is extremely valuable and helpful to a company. That is the main reason as to why this topic and this dependent variable have been chosen for this research study.

Facilitating Condition

Facilitating condition refers to the availability of the essential resources that are needed in order to support the implementation of a specific change. For a change to be applied, it is important that we have all the necessary things that are needed to apply that change to our daily lives. Because when it comes to applying change, it does not only depend on our desire alone. It depends heavily on other external reasons that might not necessarily be in our full control. Facilitating conditions are related to the availability of sufficient resources and support for individuals to use technology (Ambarwati, Harja, & Thamrin, 2020). Lack of assistance, lack of timely support, incomplete information and limited resources are all factors contribute towards facilitating conditions.

The technology and internet have been taking over all parts of the world. The internet connectivity and social networking platforms have seen a huge growth in all parts of the world over the last decade. The internet and social media platforms have quickly changed the way of living and have quickly influenced the way of communicating and connecting with people from all over the world in such a short amount of time. The social media platforms have become such a great way to connect with people from anywhere in this world with such a few clicks and a technological device.

There is a tendency that older consumers face more difficulties in responding to and understanding any new and complex information. Therefore, it is safe to say that it affects their learning process of technology and any of its' new features. This is simply because of their age as with the increasing of age, it is scientifically proven that the cognitive abilities and memories

will tend to decrease. Therefore, it would be ignorant to compare their abilities to the ones of the much younger generations. When compared with younger consumers, older consumers tend to prioritize the availability of adequate support to apply a certain change into their lives, especially if it is relating to technology as it is a new territory for them (Ambarwati, Harja, & Thamrin, 2020).

Price Value

Price value is a simple word with a very straight forward meaning. Price value refers to connection that can be made between the prices of a certain product or service and the value of that said product or service. Price value is a known factor that plays a huge role in purchase intention as it makes the customer question themselves on whether it is worth the amount of money that they are going to be paying in order to purchase a certain product or acquire a certain service.

Usually when the customers are looking to buy something, they prefer to get the best version of the product or to receive the best service as they want to make sure that the money that they are investing into it does not go to waste. Therefore, most of the customers or the people of Malaysia do pay a lot of attention to the quality of the product or service that they are receiving for the money they are paying. However, the intention of the customers may vary based on their social status, their monthly income as well as the image of the product and the service itself.

For example, there are people who give the utmost importance to their social status and therefore, might be willing to spend money to look good or to be perceived in a way that they desire. There are also people who are simply just earning a good amount of money and do not feel the need to pick apart the quality of the product or service beforehand. Then, there are also the kind of people who simply purchase a certain product or service solely due to the reputation of the brand or the large fan base of the brand in social media (Razak, Nirwanto, & Triatmanto, 2016).

Habit

The term habit refers to the common method that have been followed or practiced by someone regarding a certain aspect of their life. Habit refers to a certain practice that is especially hard to give up on. Habit refers to the acts that an individual does often and regularly. It is the way of living that a person has been accustomed to for a long time. It is a routine of behaviour that is repeated regularly and tends to occur subconsciously. Breaking a habit takes a long time and a lot of effort.

Most of the time, people do not prefer switching up to something new when they already have a habit going on. If it is not extremely crucial or necessary, an individual might not desire to break out of their habit and try new ways. This is a completely understandable behaviour as the nature of human beings is to look for comfort zones. Habits are a type of comfort zone that the individual have grown to like and have been accustomed to. Therefore, breaking out of that habit is not an easy process. However, it is also not impossible.

Everything that we feel is defined by our habits. Our entire personality is derived from our very own habits. Habits play a huge role in our mental and physical health whether we like it or not. Some people might adopt habits that might not necessarily be good for them. The right kind of

support and motivation can help a person to break out of a habit that they have grown comfortable with.

Hypotheses Development

Facilitating condition and baby boomer's consumer purchase intention through social media and e-commerce platforms during global pandemic

The technology is a new addition to the world. It is safe to say that although it is fairly new, it has quickly become a main part of our daily lives. This is especially true for the younger generation as they are the ones that were quickly sucked into this world with astounding technology and cool new features and platforms such as social media. The younger generation are the first ones to be completely influenced by the change and welcomed it with open arms. The younger generation are also the generation that are still growing and learning as they grow. The younger generation are the generation that are curious to learn new things and are much more open to changes. It is safe to say that they are also the generation with a lot of educational opportunities. Therefore, the younger generation are mostly educated.

The reason as to why all these facts are being discussed is because all these facts play a huge role as to why they are more welcoming of the influence of technology. Most of the things and products related to technology have only emerged when the younger generation are growing. The younger generation have a much more curious and active mind that is always looking to learn new things. Therefore, the beauty of technology has easily attracted their attention and support because it is only fair to admit that there is a beautiful side to technology and its' ability. Moreover, technology and internet have also quickly become a crucial part in the younger generation's lives where they simply could not escape its' influence. Technology have quickly been incorporated into their education and schools as well.

However, it is simply not the case with baby boomers. Baby boomers have grown up in a decade where most things were not readily available or accessible to them. Opportunities were not as accessible as how it is now. Baby boomers are a generation of people that grew up with a simple life. Unfortunately, even education was not accessible to most of the baby boomers during their time of growth. Therefore, it is safe to say that the current predicament that they are in now is very new to them.

It is not fair to expect them to have the same amount of understanding towards technological devices that the younger generation has. Most of the baby boomers do not have a deep understanding on the technology and social media platforms as they did not grow up with them. Some do not have the required knowledge to learn as well. Some baby boomers do not own smart phones and do not have access to the internet connection. All these conditions that facilitate towards the active usage of social media platforms and e-commerce websites might not be readily available or the baby boomers in Malaysian as mentioned previously, the baby boomers might not have the ability to learn and catch up to the constantly evolving technology due to their age and abilities (Juan-Pedro, Sanchez, Luna, Trujillo, & Ramos, 2020). Thus, we proposed that:

H1: There is a significant relationship between facilitating conditions and baby boomers' purchase intention through social media and e-commerce platform during global pandemic.

Price value and baby boomer's consumer purchase intention through social media and e-commerce platforms during global pandemic

As customers, we are fully aware that one of the main factors that heavily influences our purchase intention at the time of buying a product or service is the price of the product or service. As customers, we would like the best deal. This means that we would try to find the most attractive offer, which meets all our criteria and demands that we seek at the best possible price. It is only natural for us to question the quality of a certain product or service before purchasing them to make the that we are investing or putting our money into something useful and worth it.

The prices of products and services online versus face-to-face are drastically different in some instances. This makes us question the authenticity of the product or service that is being sold to us. For example, e-commerce sites such as Lazada and Shopee never fails to offer us with a much cheaper option of a product that we are looking to purchase in comparison to the ones that are being sold in the retail stores. There have also been instances where customers have made complaints where they have received products that aren't authentic and are of high quality due to the cheap pricing. This makes us question the authenticity and the honesty of the sellers in social media platforms and e-commerce sites as we are not able to see the product physically and are not able to make sure that we are not being scammed.

There are also a lot of news out there that discusses how easy it is for people to get scammed by online business owners. All these factors cause us to hold back from spending way too much money into purchasing things or services online. For example, most people prefer buying simple and small items that does to hold a high value through social media platforms and e-commerce websites. However, they do not prefer purchasing high value products such as laptops or smart phones through the same platforms as they are not willing to risk losing a high sum of money. All the evidence of scammers out there has only further solidified that decision. This might be the reason as to why baby boomers to do not wish to spend a huge amount of money into purchasing products or services online. They already lack a good knowledge on the features of technology and all the scamming cases only adds fuel to the fire and scare them away from making online purchases even more.

It is also important to note that during the global pandemic, everyone had no choice but to resort to purchasing pretty much everything online. This have caused the demand for thing to increase. It has also caused the online business owners to take advantage of this situation and increase the prices of their products and services tremendously. This might have also been a force that drove the baby boomer's way from purchasing products or services online. Thus, we proposed that:

H2: There is a significant relationship between price value and baby boomers' purchase intention through social media and e-commerce platform during global pandemic.

Habit and baby boomer's consumer purchase intention through social media and e-commerce platforms during global pandemic

Technology has not been around for a long time, but it seems to have conquered every aspect of our lives. Therefore, it is safe to say that baby boomers are not familiar with technology until a few years ago. The unfamiliarity might cause them to feel unsafe and insecure to get into using the technology and buying things online. Habits are hard to break, and the reputation of social media platforms and e-commerce websites have not always been great. This might have

been a huge factor as to why baby boomers do not prefer purchasing products or services through social media platforms and e-commerce websites during the global pandemic.

It is only natural for the baby boomers to feel skeptical about technology and its' safety. It is also important to note that they might simply just prefer the tradition methods as it provides them with a familiar sense of comfort. Although baby boomers might acknowledge the benefits of using technology in terms of time saving, energy saving and sometimes, money saving, they just settle for what they are already comfortable with. This is because they might not want to go through the hassle of learning to utilise those social media platforms and e-commerce websites from scratch.

Out of habit, baby boomers might find that getting letter of permission from the government and driving to the store on their own is much better than having to learn how to use technological devices and pay a huge amount of money and putting the full trust on the business owners during the global pandemic. Trying to learn how to operate these online platforms might be overwhelming and confusing to the baby boomers. Therefore, they might not get into purchasing products and services online simply out of habit. Thus, we proposed that:

H3: There is a significant relationship between habit and baby boomers' purchase intention through social media and e-commerce platform during global pandemic.

Methodology

In analysing and interpreting how the facilitating condition, price value and habit will develop a significant relationship the between purchase intention through social media and e-commerce platform during global pandemic in Malaysia, the current study developed a research framework from the theoretical perspective. These perspectives include UTAUT2 model. The variables to be examined are proposed as shown in Figure 2 in the research framework.

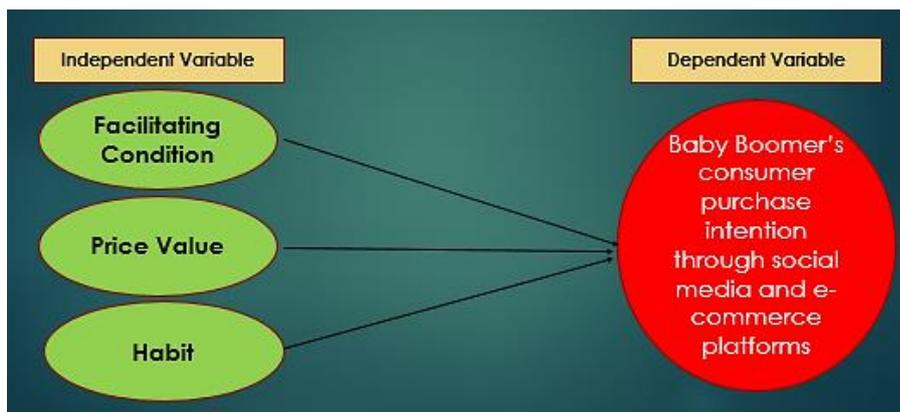


Figure 2: Proposed Research Framework

Conclusion

This paper proposes a framework that illustrates the relationship of facilitating condition, price value and habit between the purchase intention through social media and e-commerce platforms during the global pandemic. Theoretically, this study provides an insight into the knowledge on the role of social media platforms and e-commerce during the global pandemic.

Furthermore, this study also will focus on factors influence the purchase intentions of baby boomers in Malaysia through social media platforms and e-commerce. This study also seeks to assist the business provider in providing better online platform through a good planning system to improve the efficiency and effectiveness of online business platform and to provide the readers with the factors that will be closely studied to justify the purchase intentions of baby boomers.

References

- Ambarwati, R., Harja, Y. D., & Thamrin, S. (2020). The Role of Facilitating Conditions and User Habits: A Case of Indonesian Online Learning Platform. *The Journal of Asian Finance, Economic and Business*, 481-489.
- Apuke, O. (2017). Quantitative Research Methods: A Synopsis Approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 40-47.
- Bhattacharai, A. (21 January, 2021). *Baby boomers, to retailers' surprise, are dominating online shopping*. Retrieved from The Washington Post: <https://www.washingtonpost.com/road-to-recovery/2021/01/21/baby-boomers-online-shopping-pandemic/>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., . . . Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*.
- Doan, T. T. (2020). Factors affecting online purchase intention: A study of Vietnam online customers. *Management Science Letters*, 2337-2342.
- Ezezi Isaac Obilor, E. C. (2018). Test for Significance of Pearson's Correlation Coefficient (). *ResearchGate*.
- Hasan, N. (2020). Multiple Regression analysis Using SPSS. *ResearchGate*.
- Juan-Pedro, Sanchez, C., Luna, I. R., Trujillo, E. C., & Ramos, A. V. (2020). Online Recommendation Systems: Factors Influencing Use in E-Commerce. *sustainability*, 1-15.
- Lim, Y. M., Yap, C. S., & Lee, T. H. (2014). Intention to shop online: A study of Malaysian baby boomers. *International Scholars Journals*, 1-7.
- Loeb, S., Dynarsid, S., McFarland, D., Morris, P., Reardon, S., & Reber, S. (2017). *Descriptive analysis in education: A guide for researchers*. Washington, DC: U.S. Department of Education.
- Parsons, N., Price, C., Hiskens, R., Achten, J., & Costa, M. (2012). An evaluation of the quality of statistical design and analysis of published medical research: results from a systematic survey of general orthopaedic journals. *BMC Medical Research Methodology*.
- Ranjan, A., Misra, M., & Yadav, J. (2021). Online shopping behavior during COVID-19 Pandemic: An Indian Perspective. *SSRN Electronic Journal*, 1-18.
- Razak, I., Nirwanto, N., & Triatmanto, B. (2016). The Impact of Product Quality and Price on Customer Satisfaction with the Mediator of Customer Value. *Journal of Marketing and Consumer Research*, 59-69.
- Tighe, D. (21 July, 2022). *Worldwide: favourite buying methods by generation 2021*. Retrieved from statista: <https://www.statista.com/statistics/1288182/shopping-methods-by-age/#statisticContainer>
- Wu, Y.-C., Chen, C.-S., & Chan, Y.-J. (2020). The outbreak of COVID-19: An overview. *Journal of the Chinese Medical Association*, 217-220.
- Younas, P. A. (2021). Understanding and interpreting regression analysis. *Evid Based Nurs*.

SCHEDULING ELEMENTS IMPLEMENTATION ON FOOD DELIVERY SERVICE TOWARDS CUSTOMER SATISFACTION DURING COVID-19 PANDEMIC

Anas Firdaus Shaheen AZIZI¹, Norshahrizan NORDIN²

^{1,2}*Universiti Malaysia Perlis*

Abstract. This study is being conducted to find out how satisfied customers are with the food delivery service during the COVID-19 pandemic. Universiti Utara Malaysia (UUM) served as the sampling location, and 54 target participants were involved in this study. One of the quality improvement techniques for high-quality services was called Quality Function Deployment (QFD). The ability of QFD to determine customer satisfaction does have a limitation, though. The Kano Quality Attribute Categories in the Kano Model offer a way to better understand customer satisfaction. As a result, this study suggests integrating the Kano Model with Quality Function Deployment (QFD). The results of this study can help decision-makers in the food delivery industry design and enhance the delivery service's quality to increase their sustainability in the industry based on customer and technical priorities.

Keywords: Food delivery service, Customer satisfaction, Covid-19, Kano-QFD.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Tel.: +604-9287524. Email address: anasfirdausshaheen@gmail.com

Introduction

Nowadays, even remote areas have internet access. Many developed countries, including Malaysia, use the internet for shopping because it has many products and stores. Malaysia's online food delivery services have grown in popularity because they can order food to be delivered to their homes. COVID-19 has established a new global standard. Many daily activities, particularly mobility, are affected. Fewer studies on the current situation have been conducted than before the COVID-19 pandemic, demonstrating how important service quality is to food delivery customer satisfaction. This study looked at the scheduling of the COVID-19 outbreak in Malaysia. Consumer satisfaction with food delivery is influenced by food quality, customer service, and delivery. A variety of tools and techniques are used to ensure long-term viability.

Even minor changes to ensure customer satisfaction can improve food delivery services significantly. The Kano model is used to prioritise needs in order to maximise customer value. QFD implements quality functions and qualities in products and services (Hwang & Teo, 2001). QFD identifies customer wants and needs in order to develop a production or improvement strategy. This research looks into delivery, customer service, and food quality factors. To find out customers level of satisfaction towards food delivery services, the Kano and QFD methods will be used.

Literature review

Customer Satisfaction

COVID-19 has made online food delivery services an essential part of our daily activities. Online food delivery services have either a beneficial or a negative influence on the customer experience. Successful businesses depend on satisfied customers for a consistent source of revenue. Customers will continue to purchase from a company if they are satisfied. Because of the requirement for the company to maintain a competitive edge over its rivals, it is essential that it deliver the highest quality products and services that are achievable (Yusra & Agus et al., 2020).

In some of the earlier research, the theoretical model was used in order to provide an explanation for the level of customer satisfaction. The researchers also found a connection between customer satisfaction and service quality aspects such as delivery, customer service, and food quality. An expectation-confirmation theory model, which included attitude questions, was used to predict customer satisfaction and continued usage of mobile food delivery services in Bangladesh (Al Amin et al., 2020). A study by Choi et al. (2020) in Korea looked at how well-known and satisfied customers were with mobile food delivery apps. He has shown that the user satisfaction of a product and its simplicity of use, in parallel with the customer's level of familiarity with the product, may contribute to the consumer's satisfaction with the product.

When it comes to online ordering, the quality of the service and the level of customer service are what determine customer satisfaction and loyalty. There was a second study that looked at

the influence of user satisfaction and app re-use intentions on characteristics such as information, payment security, and usefulness and convenience in mobile food delivery apps (Song Y et al., 2017).

There has been a lot of academic interest in finding out how pleased consumers were with online food delivery services during the COVID-19 pandemic. In an Indonesian study based on the extended Theory of Planned Behavior (Prasetyo et al., 2021), customer satisfaction and loyalty were assessed. Unexpectedly, individuals' intents to utilise online meal delivery services were unaffected by usability factors. Because customers had already gained some experience with the product, the explanation given was that they were no longer in the learning phase.

Service quality

Quality of service is measured by the website's ability to perform online shopping, ordering, and delivery, as well as the level of service the consumer receives from beginning to end of the purchase process (Rolland & Freeman et al., 2010). Customer satisfaction and loyalty are major acceptance factors. The quality of food delivery apps can predict customer satisfaction. Zulkarnain et al. (2015) say customers would be happier with online meal delivery if delivery, customer service, and food quality were improved. Food delivery app quality increases customer loyalty (Azizul et al., 2019). If customers like the apps, they'll likely reuse them. A positive experience with the application service increases customer satisfaction. Another study found that improving meal delivery quality increased customer satisfaction (Rahim & Yunus et al., 2021).

Research Framework

Based on the literature review, the researcher will use the theoretical framework. The researcher will focus on trying to confirm these variables and identify any possible relationship within the variables. In addition, the researcher will be able to identify more detail about the variable in the initial information review.

This research would investigate the relationship between customer satisfaction and variables such as delivery, customer service, and food quality while customer satisfaction is a dependent variable. The purpose of this study is to identify the relationship between dependent and independent variables.

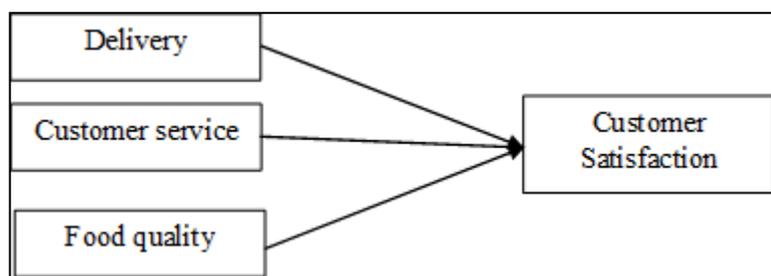


Figure 1: Conceptual Framework

The hypotheses are related to relationships between three variables based on the statement and literature review. Based on the review of previous research, this study attempts to test the following hypotheses:

H1: There is a positive relationship between delivery and customer satisfaction.

H2: There is a positive relationship between customer service and customer satisfaction.

H3: There is a positive relationship between food quality and customer satisfaction.

Methodology

Research Design

Various cognitive decision-making steps are involved in this study design in order to arrive at the desired conclusion. As a result of doing literature research and conducting hypothesis testing, the study's decision-making difficulty was resolved. In order to arrive at a solution, the process begins with collecting and analysing data. It is possible for research to be exploratory, descriptive, or undertaken to test a hypothesis. If successful, the hypothesis will explain the nature of the connection between the dependent variable and the independent variable.

This study uses hypothesis testing because it explains the nature of a specific link or establishes the difference between groups or the independence of additional factors in the investigation. The researcher will apply a correlation technique to this study, in which a connection between at least two variables is considered at the same time. The researcher will use a combination of focus groups, observation, and questionnaires to gather this information.

Population

Sekaran et al., (2001) stated that the term "population" or "target population" refers to the total group of persons being studied by the researcher. The target population for this research was students at Universiti Utara Malaysia (UUM), Kedah, who have ever used the Food Panda application for their ordering. According to the Universiti Utara Malaysia (UUM) portal, they have more than 10,000 students there (source: the Universiti Utara Malaysia website). In order to gather quantitative data for analysis, the Kano Questionnaire was used in this study. There were 54 participants in this study from Universiti Utara Malaysia (UUM).

Sample size and sampling technique

The majority of people are unable to use standard software for sample size calculation and power analysis. Some applications necessitate statistics and/or software development expertise, while others are extremely expensive for field use. For t-tests, F-tests, 2-tests, z-tests, and other exact tests, we used G*Power. This calculator calculates research samples, error probability, and three variables. G*Power is a free and easy-to-use sample size and power calculator. For F, t, 2, z, and exact tests, G*Power computes sample size and power. This programme is capable of calculating sample size and power.

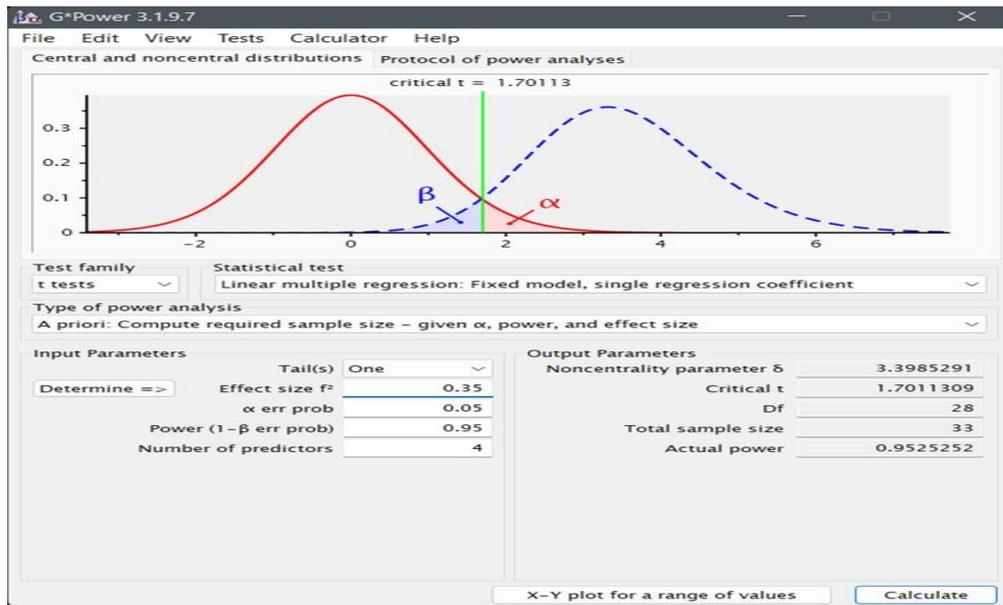


Figure 2: Result population of G*Power

Data Analysis Technique

House of Quality, the Kano Model, and reliability analysis were all applied. The frequency and percentages of service quality and customer satisfaction will be included in the study's findings report. Customer satisfaction and food delivery quality will be analysed using Kano-QFD. The Kano Model was used to examine the link between meeting customer needs and their level of satisfaction in this study (Mikulic & Prebezac, 2011)

LINGO

Lingo is a tool for solving and analysing both major and minor models that combines linear and nonlinear optimization. Benefits are maximised, while losses, costs, and unhappy outcomes are minimised. Depending on how the variables are related, optimization problems can be linear or nonlinear. A formula that expresses what should be optimised is called the objective function. Quantities that must be determined to have optimal values are called variables.

Result

The Importance Rating of HOQ

Customer feedback on food delivery services and their hopes for improvement are provided above. After satisfied service (42.16%), food safety ranks second with 28.68%. They also required quick food delivery. To ensure long-term satisfaction, dependable customer service must be improved.

Table 1: Result Absolute Importance of HOQ

Rank	Percentage (%)	Importance Rating	Customer voice
1	42.16	322.03	Satisfied Service
2	28.68	219.09	Food Safety
3	25.49	194.69	Fast received and in good condition
4	3.66	27.98	Reliable customer service

Parallel Machine

A feasible solution can be found in a reasonable amount of time using Lingo 18 to solve the numerical experiment. After weighing the pros and cons of each approach, the findings are summarized in the table below.

```

MODEL:
!Stove cooking problem;
SETS:
node:a,CT;
link(node,node):FT,ST,X;
ENDSETS
DATA:
node=;
a=1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1;
FT=@OLE('D:\Stovemodel.xlsx','FT');
ST=@OLE('D:\Stovemodel.xlsx','ST');
ENDDATA:
!Equation 1;
MIN=@sum(node(k):@sum(node(i):FT(k,i)*a(i)));
!Constraint 2;
@for(node(i)|i#GT#1:@for(node(k)|k#GT#1:FT(k,i)=ST(k,i)+CT(i)*X(k,i)));
!Constraint 3;
@for(node(i):@for(node(j)|j#NE#i:(ST(k,j)-FT(k,j))*(ST(k,j)-FT(k,j))<=0));
!Constraint 4;
@for(node(i)|i#NE#j:@for(node(k)|k#NE#j:@sum(node(k)|k#NE#i:X(k,i)=1));
!Constraint 5;
@for(node(i):@for(node(k):@bin(X(k,i))));
END
    
```

Figure 3: Lingo Model

The equation will be translated into the Lingo application. As a result, we can conclude that Strategy 4 is more practical and saves time for the dish-package to finish. It also displays the fewest number of delayed orders in order to maximise the number of orders received.

Table 2: Result of scheduling model

Evaluating Indicator	Strategy 1	Strategy 2	Strategy 3	Strategy 4
Number of delayed order	3	4	3	3
Total delayed time of the order/min	19.5	25.5	25	17.5

Strategy 4 was the one that resulted in the least amount of overall delayed time in this experiment. There will be no viable solution for Strategy 2 until the requirement that at least 60% of the order be completed on time is relaxed. The results of the scheduling process for the dish package are presented in the table below for further research.

The findings support the hypothesis that delivery and customer satisfaction are positively related. Timely deliveries are essential to customer satisfaction. Customers hate waiting, especially when they're hungry. The food delivery service must ensure timely delivery and provide accurate order tracking so customers can monitor their orders. Customers would have expectations about food delivery time.

Next, the hypothesis that customer service will increase customer satisfaction lacks evidence. This may be because the food delivery service ensures that customers have no issues with delivery time or service, resulting in fewer issues overall. If a customer needs help, they can call the rider, who is always available on their phone. Rider would also inform the customer of any inconveniences, such as a traffic jam or mistake in location, as soon as possible to keep the customer informed.

The hypothesis that food quality affects customer satisfaction isn't supported. This is due to customer loyalty, despite receiving spoiled food. Food delivery services only ensure food safety during transport from the restaurant to the customer. The restaurant is responsible for ensuring food freshness and juiciness. To maintain customer appeal and satisfaction, a restaurant must prepare food well.

Limitation of study

According to preliminary findings, incorporating customer expectations into food delivery service variables may increase customer satisfaction. The study's findings may only be applicable to the sample location. The responder's location may have an impact on their food delivery requirements. Meal delivery users make up a sizable portion of the study's sample. 54 people could be insufficient for accurate statistics. Larger samples should be used in the future to improve data accuracy and research results. 74.1% of respondents are between the ages of 20 and 29. Age categories are underrepresented. An age imbalance among respondents may jeopardise data collection quality. Each respondent group may have different expectations for food delivery satisfaction.

Recommendation

Future research can benefit from open-ended questions. A Kano questionnaire can aid in data accuracy. With an open-ended question, respondents can be more specific. Because open-ended questions allow for as many possible responses as possible. As a result, gaps in the investigation can be avoided. The responses may also help us better understand what customers want, need, and expect from food delivery services. This survey had between 50 and 54 respondents. More participants are needed for the study, including not only UUM students but also members of the community.

Because so many people have used this food delivery service, everyone has a different perspective based on their own experiences. As a result, a small sample size may not accurately reflect the general public's opinions. Future studies should use larger sample sizes to improve data quality and produce more accurate results. According to the findings, the majority of respondents are women. Data quality can suffer as a result of inconsistent demographic distribution. Many people of the same gender, age, or race may hold similar beliefs. Demographic factors can have an impact on outcomes.

References

- Akao, Y. (1972). New product development and quality assurance deployment system. *Standardisation Qual. Control*, 25, 243–246.
- Al Amin, M., Arefin, M.S., Alam, M.R., Ahammad, T. & Hoque, M.R. (2021). “Using mobile food delivery applications during COVID-19 pandemic: an extended model of planned behavior,” *Journal of Food Products Marketing*, 27(2), 105-126.
- Bagla, R.K. & Khan, J. (2017). Customers’ expectations and satisfaction with online food ordering portals. *Prabandhan Indian Journal of Management*, 10(11), 31-44.
- Bayraktarogly, G., & Ozgen, O. (2008). Integrating the Kano model, AHP and planning matrix: QFD application in library services. *Library Management*.
- Chai, L.T. & Yat, D.N.C. (2019). Online Food Delivery Services: Making Food Delivery the New Normal. *Journal Mark. Adv. Pract.*
- Chen, C.-C., & Chuang, M.-C. (2008). Integrating the Kano model into a robust design approach to enhance customer satisfaction with product design. *International Journal of Production Economics*, 114(2), 667–681.
- Choi, J.-C. (2020). “User familiarity and satisfaction with food delivery mobile apps,” *SAGE Open*, 10(4), 1-10.
- Christoglou, K., Vassiliadis, C., & Sigalas, I. (2006). Using SERVQUAL and Kano research techniques in a patient service quality survey. *World Hospitals and Health Services*.
- Ganapathi, P. & Abu-Shanab, E.A. (2020). Customer satisfaction with online food ordering portals in Qatar. *Int. J. E-Serv. Mob. Appl.*
- Hauser, J. & Clausing, D. (1988). The House of Quality. *Harvard Bus. Rev.* 66, 63–73.
- Hwang, H. B., & Teo, C. (2001). Translating customers' voices into operations requirements -A QFD application in higher education. *International Journal of Quality & Reliability Management*.
- Kano, N., Seraku, N., Takahashi, F. & Tsuji, S. (1984). Attractive Quality and Must-Be Quality. *Journal of the Japanese Society for Quality Control*, 41, 39-48.
- Kanyana, A., Ngana, L. & Voong, B.H. (2016). Improving the Service Operations of Fast-food Restaurants. *Procedia Soc. Behav. Sci*, 224, 190–198
- Lin, Y.H., Yu, D.Y. & Huang, C.Y. (2005). Employing a hypothetical model to investigate the application of Quality Function Deployment (QFD) in a restaurant’s service design and quality improvement. *Journal Hospital Home Econ*, 2, 369–389.
- Liu, M.S., Wu, S.D., Lu, M.C., Huang, Y.C., Hsu, W.C., YU, W.J. & Tseng, C.P. (2012). In application with integration of QFD and refined Kano Model analysis to explore the service quality of hotel—A case study of an anonymous hotel Tainan city. *Journal FarEast University*, 29, 281–312.
- Materla, T., Cudney, E.A. & Antony, J. (2017). The application of Kano Model in the healthcare industry: A systematic literature review. *Total Quality Management & business excellence*.
- Mikulic, J. & Prebezac, D. (2011). A critical review of techniques for classifying quality attributes in the Kano model. *Managing Service Quality*, 21(1), 46-66.
- Mkpojiogu, E. O. & Hashim, N. L. (2016). Understanding the relationship between Kano model's customer satisfaction scores and self-stated requirements importance. *Springerplus*.

- Ray, A., Dhir, A., Bala, P.K. & Kaur, P. (2019). Why do people use food delivery apps (FDA)? A uses and gratification theory perspective. *Journal Retailer Consumer Service*.
- Rolland, S. & Freeman, I. (2010). A new measure of e-service quality in France. *International Journal of Retail & Distribution Management*, 38(7), 497-517.
- Tavakol, M. & Dennick, R. (2011). Making sense of Chronbach's Alpha. *International journal of medical education*, 2, 53-55.
- Teng, T.I., Chen, Y.C., Lee, Y.C. & Peng, K.C. (2015). Using Kano's Model and Quality Function Deployment to investigate the service quality of organic specialty store in Pingtung county. *Journal Agriculture Association Taiwan*, 16, 45-66.
- Yeo, V.C.S., Goh, S.K. & Rezaei, S. (2017). Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services. *Journal Retailer Consumer Service*.
- Yusra & Agus, A. (2020). "The influence of online food delivery service quality on customer satisfaction and customer loyalty: the role of personal innovativeness," *Journal of Environmental Treatment Techniques*, 8(1), 6-12.

A CONCEPTUAL STUDY ON THE RELATIONSHIP BETWEEN BUSINESS STRATEGY, MARKET ORIENTATION AND SMEs PERFORMANCE IN SOUTH SUMATRA, INDONESIA

Ardio SAGITA¹, Mohd Salahudin SHAMSUDIN², Shyalwi SUHIMI³, Aris Kusumo DIANTORO⁴, Adnan KASOFI³

^{1,2}Universiti Utara Malaysia,
³Universitas Nahdlatul Ulama Yogyakarta,
⁴Universitas Binawan

Abstract

This conceptual research paper is about how to improve the performance of SMEs in the South Sumatra region of Indonesia. In general, SMEs have an important role in the GDP of every country in the world. This is also the case with Indonesia, which has an influence on the economy. Each region in Indonesia contributes to the nation's GDP with different percentages through SMEs. In this case, it is focused on studying the South Sumatra region to find out how to improve the performance of SMEs in the region. In this study, it uses business strategies and market orientations that can affect the performance of SMEs in South Sumatra, Indonesia.

Keywords: Business Strategy, Market Orientation, SME Performance.

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Email address: Ardio.sagita07@gmail.com

Introduction

Small and medium enterprises have faced challenging market conditions since the turn of the twenty-first century. Despite their struggles in a competitive global market, small and medium enterprises (SMEs) continue to play an essential role as the "backbone" of many countries (Wymenga, Spanikowa, Baker, Konings, & Canton, 2012). SMEs is a very important sector in a country, other than providing foreign exchange; they can also contribute to GDP. Currently, the government of Indonesia has made SMEs the main agenda in the economic development of the country. To realize the goal, the Ministry of Finance said that until now, the policies implemented by the government have focused on the importance of SMEs' development. The government seeks to increase the people's productivity and competitiveness at the international level and foster economic independence with strategic sectors in the domestic economy (Taufiq & Jatmika, 2017). A previous study by Anggraeni et al., (2017) said the government's approach for developing SMEs must be tailored to the local environment. Develop government-led strategic initiatives that must be implemented as government policy to help small businesses grow. The community can also work with the government to develop a business through SMEs, so that they can assist each other for the community's and state's economies. Every community has the ability to be creative in order to generate revenue for the government to develop (Anggraeni et al., 2017).

Problem Statement

According to Kominfo Jatim (2019), Airlangga Hartato (Minister of Industry) said that in 2018, the contribution of Indonesian SMEs to GDP was the highest compared to Malaysia (38.3%), Thailand (43.4%) and Singapore (48%). However, among Asian and European countries, Indonesia still lost to Japan (66.2%), China (68.2%) and Germany (68.5%). This problem is also happening in several provinces in Indonesia, including South Sumatra. Head of the Cooperative and SME office of South Sumatra, Ana Heryana, said, *"In 2019, most SMEs are not very active, and their number is decreasing"* (Muntaha, 2019). The previous researcher also supports this; Kuncoro (2010) revealed that SMEs often experience some common obstacles, but the main concern is how to improve the SMEs performance so they can grow even better. Performance is one of the important measurements of the businesses that SMEs operate (Herlambang & Mawardi, 2017). According to Hariadi (2003), business strategy is a strategic plan at the division level. It is intended to establish and strengthen the competitive position of the organization's products and services in certain industries or markets served by the division. BS is very important for organizations facing fierce competition and must implement competitive strategies to survive. The strategy adopted is to follow the competencies and external conditions of the organization so that managers can look for opportunities to maintain their competitiveness and performance (Covin & Slevin, 1991). Tjiptono (2008) stated that market orientation has the potential to improve business performance. Besides that, market orientation is also believed to provide psychological and social benefits for employees through a greater sense of belonging and greater organizational commitment. Market orientation has a very important and useful role in improving SMEs' performance (Mokhtar et al., 2014).

Purpose of Research and Research Questions

The purpose of this conceptual paper is to determine the relationships between business strategy, market orientation, and SMEs' performance in South Sumatra, Indonesia. As a result, the following research questions will be addressed:

- 3.1 Is there a significant relationship between business strategy and SMEs' performance?
- 3.2 Is there a significant relationship between market orientation and SMEs' performance?

Delimitations and Limitations

This conceptual paper is delimited by insufficient readings of literature from multiple discipline in order to get a broader scope of theoretical understanding. This conceptual paper too has its investigative limitations. For example, this paper is merely a review from other journals, and the data is yet to be collected. Another limitation is that the literature related to topics is not fully explored due to time constraints.

Literature Review

This part presents the meaning of Small and Medium-sized Enterprises (SMEs) in Indonesia, SMEs Performance as dependent variable, business strategy and market orientation as independent variables.

SME in Indonesia

According to prior research by Tambunan (2008), Small and medium-sized enterprises (SMEs) in Indonesia, which can be defined as organizations with less than 100 employees, have long played a prominent role in domestic economic activity and particularly as a significant generator of job opportunities. As a result, many households rely on it as a primary or supplementary source of income. In Indonesia, SMEs account for more than 90% of all businesses outside of agriculture, making them the country's largest employer, employing over 90% of its workforce, primarily women and the young. Most SMEs, particularly micro-enterprises (MIEs) and small and medium-sized enterprises (SMEs), are scattered over rural areas. As a result, they may be an essential starting point for strengthening villagers' entrepreneurial skills, particularly women's (Tambunan, 2008).

SMEs Performance

There is no wide definition of performance (Andersén, 2010), and there is no agreement on specific performance goals for SMEs metrics (Sobri Minai & Lucky, 2011; Wiklund, 2006). The process of linking transformation processes from input to output in order to achieve certain goals is referred to as "performance". From an economic standpoint, "performance" refers to a company's efficiency and effectiveness in managing expenses and outputs (Abu Jarad et al., 2010; Chien, 2004). In a nutshell, organisational performance is described as an organization's ability to use its existing resources efficiently and effectively to achieve its objectives (Abu Jarad et al., 2010).

Overall performance in organizations is caused by business performance, and financial performance is the internal component of an organisation, according to Venkatraman and Ramanujam (1986). The success of a SME's performance is determined not only by its efficiency but also by its capacity to operate in the financial sector, often known as financial stability. Financial and operational success are, according to Venkatraman and Ramanujam (1986), the foundations of total business performance. Organizational performance can be judged by the organization's efficiency and effectiveness in employing resources to create economic outcomes.

Business Strategy

A business strategy is a strategic plan for what happens at the divisional level to build and strengthen the worldwide competitiveness of the division's products and services in the organization or specialised market it serves (Hariadi, 2003). Business strategy is a collaborative effort to attain long-term objectives. Geographic expansion, diversification, acquisition, product development, market penetration, employee rationalisation, divestment, liquidation, and joint ventures are all examples of business strategy (David, 2011). A strategy is a set of commitments and actions that are integrated and coordinated in order to exploit key strengths and gain competitive advantages (Hitt, 2011).

According to the various definitions of business strategy provided by experts, a strategy is a tool used to achieve corporate goals by creating a competitive advantage over competitors who respond to external and internal factors based on the perspective of future customers who influence the organisation through the power of motivation for stakeholders (Permatasari, 2015).

Market Orientation

According to Pertiwi and Siswoyo (2016), being market-oriented is one of the ways to survive in the market. Market orientation is an organizational orientation that has principles to fulfil the consumer's needs and demands. Market orientation as a strategic consumer targeting and building an organization that focuses on customer service, provides fundamental competition oriented inward, delivers services in accordance with the consumer's expectations, and wins a competition (Craven, 1994). Market orientation can also be defined as organizational behaviour that identifies consumer needs and competitive behaviour, spreads market information throughout the organization, and responds well (Silviasih et al., 2016).

Organizations that cannot provide satisfaction to their customers will get into big problems. The problem is that those customers' complaints are ignored, and the organization does not respond to them, which makes the customers disappointed and switch to other products. The average satisfied customer will tell three people about the good product experience, while the average dissatisfied customer will share the bad experience with other customers. MO is the process of generating and providing market information to create value for customers (Silviasih et al., 2016). This is also supported in other research by (Sefa, 2014), where it is explained that by doing MO, internal business entities can analyse the desires of customers and what is being done by competitors to win the competition.

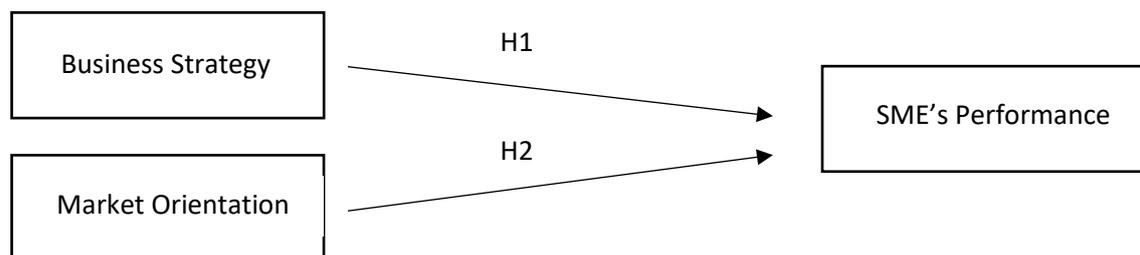
Research Hypotheses and Framework

The independent variables that are to be tested in this study are business strategy and market orientation. The dependent variable is the SME's performance in South Sumatra, Indonesia. The hypotheses of this study are as follows:

H1 : There is a relationship between business strategy and SMEs' performance.

H2 : There is a relationship between market orientation and SMEs' performance.

The framework for this study is



Research Methods

This study used a quantitative method. Quantitative research methods are a type of method that produces solutions or answers using statistical, measurable, and quantitative procedures. One of the research methods that can be used is the distribution of questionnaires. The verification method is used to test hypotheses based on the results of statistical analysis (Nazir, 1998) and to determine the magnitude of the influence of business strategy and market orientation on SME's performance in South Sumatra. Data collection was carried out by distributing questionnaires in selected areas of South Sumatra with simple random sampling. Data were analyzed using Statistical Package for the Social Sciences (SPSS) analysis.

Conclusions

This study plans to investigate the performance of SMEs as dependent variables in the South Sumatra region by studying the influence of business strategy and market orientation as independent variables. This particular conceptual paper is the earliest article produced from the research. It highlights the problem statements that motivate the research, describes the research questions and hypotheses to be tested, and reviews the literature relevant to the main field. Future articles that will result from this study will discuss in more detail the aspects of the experimental methodology used, survey and administrative instruments, descriptive and inferential results, and the managerial implications of this study. The findings of this study will help SMEs in Indonesia, especially in the South Sumatra region, further improve their performance in order to compete in the global market and increase the GDP.

References

- Abu Jarad, I., Yusof, N., & Wira Mohd Shafiei, M. (2010). The organizational performance of housing developers in Peninsular Malaysia. *International Journal of Housing Markets and Analysis*. <https://doi.org/10.1108/17538271011049768>
- Andersén, J. (2010). A critical examination of the EO-performance relationship. *International Journal of Entrepreneurial Behaviour and Research*. <https://doi.org/10.1108/13552551011054507>
- Anggraeni, F. D., Hardjanto, I., & Hayat, A. (2017). Pengembangan Usaha Mikro, Kecil, Dan Menengah (UMKM) Melalui Fasilitasi Pihak Eksternal Dan Potensi Internal. *Jurnal Administrasi Publik*, 1, 1286–1295.
- Chien, M.-H. (2004). A Study to Improve Organizational Performance: A View from SHRM. *Journal of American Academy of Business, Cambridge*.
- Covin, J. G., & Slevin, D. P. (1991). A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship Theory and Practice*. <https://doi.org/10.1177/104225879101600102>
- Craven, D. (1994). Reforming the Traditional Organization: the Mandate for Development Networks. *Business Horizons*, 19–28.
- David, F. R. (2011). Strategic Management: Concepts and Cases (Thirteenth Edition). In *Prentice Hall*. <https://doi.org/10.1688/ZfP-2014-03-Rowold>
- Hariadi, B. (2003). *Strategi Manajemen*. Bayumedia Publishing.
- Herlambang, G., & Mawardi, M. (2017). Pengaruh Orientasi Pasar Dan Inovasi Produk Terhadap Kinerja UKM (Studi pada Sentra UKM Meubel di RW 01 dan RW 02, Kelurahan Tunjungsekar, Kecamatan Lowokwaru, Kota Malang). *Jurnal Administrasi Bisnis S1 Universitas Brawijaya*, 49(2), 56–62.
- Hitt, M. A. (2011). Relevance of strategic management theory and research for supply chain management. *Journal of Supply Chain Management*. <https://doi.org/10.1111/j.1745-493X.2010.03210.x>
- Kominfo Jatim. (2019). *Kontribusi Manufaktur Indonesia Posisi Lima Besar Dunia*. Kominfo Jatim. <http://kominfo.jatimprov.go.id/read/umum/kontribusi-manufaktur-indonesia-posisi-lima-besar-dunia->
- Kuncoro, M. (2010). *Dasar-dasar Ekonomika Pembangunan*. UPP STIM YKPN Yogyakarta.
- Mokhtar, S. S. M., Yusoff, R. Z., & Ahmad, A. (2014). Key elements of market orientation on Malaysian SMEs performance. *International Journal of Business and Society*, 15(1), 49–64.
- Muntaha, S. (2019). *Ini Faktor Penyebab Target Binaan UMKM Kota Palembang Belum Tercapai*. Sumsel.Idntimes.Com.
- OECD. (2019). *OECD SME and Entrepreneurship Outlook 2019*.
- Permatasari, D. (2015). Penentuan Strategi Bisnis Manajemen Hotel Dalam Menghadapi Persaingan (Studi Kasus di Quds Royal Hotel Surabaya). *Jurnal Administrasi Bisnis S1 Universitas Brawijaya*, 27(1), 86346.
- Pertiwi, Y. D., & Siswoyo, B. B. (2016). Pengaruh Orientasi Pasar Terhadap Kinerja Pemasaran Pada Umkm Kripik Buah Di Kota Batu. *Syariah Paper Accounting FEB UMS*,

231–238.

- Silviasih, Slamet, F., & Iskandar, D. (2016). Pengaruh Orientasi Pasar Dan Orientasi Kewirausahaan Terhadap Kinerja Usaha Pada Pemilik UKM Sektor Manufaktur Garmen Di Tanah Abang, Jakarta Pusat. *Jurnal Ilmiah Manajemen BIsnis*.
- Sobri Minai, M., & Lucky, E. O.-I. (2011). The Moderating Effect of Location on Small Firm Performance: Empirical Evidence. *International Journal of Business and Management*, 6(10). <https://doi.org/10.5539/ijbm.v6n10p178>
- Sefa, S. R. (2014). The Impact Of Market Orientation And Innovation On SME Performance : The Case of Kosovo, Cosovo. *Faculty of Economics. University of Ljubljana*.
- Tambunan, T. (2008). *SME Development in Indonesia with Reference to Networking, Innovativeness, Market Expansion and Government Policy*. University of Trisakti, Indonesia. [https://www.eria.org/SME Development in Indonesia with Reference to Networking%2C Innovativeness%2C Market Expansion and Government Policy.pdf](https://www.eria.org/SME%20Development%20in%20Indonesia%20with%20Reference%20to%20Networking%2C%20Innovativeness%2C%20Market%20Expansion%20and%20Government%20Policy.pdf)
- Taufiq, R., & Jatmika, D. (2017). *Masalah yang dihadapi Usaha Kecil Menengah di Indonesia*.
- Tjiptono, F. (2008). *Strategi Pemasarab*. Andi Offset.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research : A Comparison of Approaches Massachusetts Institute of Technology. *Academy of Management Review*. <https://doi.org/10.2307/258398>
- Wiklund, J. (2006). The sustainability of the entrepreneurial orientation-performance relationship. In *Entrepreneurship and the Growth of Firms*. <https://doi.org/10.1177/104225879902400103>

ONLINE BUSINESS SUCCESS FACTORS FOR UNIVERSITY STUDENTS IN KLANG VALLEY

Mohd Sufli YUSOF¹, Hasnizam HASAN² and Zahira AMER HAMZAH³

^{1,2,3}*Universiti Utara Malaysia*

Abstract. Online business offers broad array of opportunities and helps to build new future for young people in Malaysia. Ministry of Communication and Multimedia (KKMM) via Malaysia Digital Economy Corporation (MDEC) has offered lot of incentives, opportunities and encouragements to young people who are interested to venture into online business and e-commerce. Several research endeavours attempt to discover key success factors for online business especially that involved young people. However, the findings are still inconclusive and inconsistence. Young business people are still struggling to find an answer for the for the following question – do students financial management, time management as well as marketing and mobile application abilities contribute towards the success of online business. In other words, this research attempt to achieve the following objective – to analyse whether financial and time management as well as marketing and mobile application skills has contributed towards the success of online business. This article on the other hand just provided several concepts and theories which are believed to contribute toward the success of online business.

Keywords: Online business, key success factors, financial management

* Corresponding author. Universiti Utara Malaysia, 06010 Sintok, Kedah. Tel.: +604-9287524. Email address: mohdsufliyusof@gmail.com

Introduction

Online business in Malaysia has become more significant since it gives opportunity to generate income and build a future. Consequently, the government feels that the assistance and possibilities offered will aid in the growth and expansion of online enterprises in Malaysia, thereby improving the performance of businesses in accordance with the current trend. Consequently, the government has prepared for an extensive change by concentrating on the digital market to generate high-quality online company entrepreneurs who are imaginative and proactive, in addition to keeping pace with the present development. Simultaneously, the purpose is to expand the number of online adoptions among shops in order to accomplish government goals. Therefore, businesses must comprehend the aspects that might enhance the success of their online operations. This may encourage them to fulfil their responsibilities as an owner or founder by implementing sound decision-making. This is a means for businesses to achieve success, remain competitive in the digital marketplace, and eventually contribute to the nation's economy.

University students who are exposed to diverse online entrepreneurship programs, on the other hand, contribute to a lack of technological skills (Gushiar et al. 2014). This is a personal challenge to learn ICT skills to satisfy the demands of internet businesses. As result of students' failure to acknowledge internet business opportunities as a profession that will ensure their future has led to students opting out of entrepreneurial careers. Consequently, it has influenced the government's current unemployment crisis since the government is unable to produce adequate careers. Therefore, to address the issue of unemployment, the government advises and promotes school leavers and graduates to start their businesses.

Problem Statement

Internet is an integral part of the user's life. As people's lifestyles become more hectic, some users are turning to the internet as a means of purchasing products and services. Online shopping has been popular in developed countries for a long time, and the habit is spreading swiftly among native communities. Buyers may view the things they wish to buy and compare prices, quality, and brand before placing an order through online transactions.

Currently, online shopping is selected as a convenient approach to purchasing necessities without having to wait in lines. Online shopping has been popular in developed countries for a long time, and the habit is spreading swiftly among native communities. Buyers may view the things they wish to buy and compare prices, quality, and brand before placing an order through online transactions.

Many studies have been conducted on online purchasing behavior. Based on previous studies, the characteristics and goals found in individuals will influence behavior such as purchasing activities, intention to revisit the website, and attitude towards the website (Wu, 2003). In a study conducted by Mohd Suki in 2006, it was found that online buyers in Malaysia are composed of the young, affluent, highly educated, and wealthy.

It is not as simple as one would think to run a company, whether that business is conducted online or not. This is due to the fact that company owners will encounter challenges while launching and operating their companies (Alstete, 2002).

According to the Investigation Report on the Use and Access of ICT by Individuals and Households in Malaysia (2013), there are three main reasons why internet users do not buy or place orders for goods or services via the internet they are not interested (69.5%), more interested in buying in regular stores (49.1 %) and lack of knowledge or skills (41.8%). Security for online transactions continues to dominate discussions of electronic commerce (Elliot and Fowell, 2000; Szymanski and Hise, 2000; Liao and Cheung, 2001). Consumers are concerned about disclosing their financial and personal information. In addition, aspects of the company's security policy and reliability are important aspects that are emphasized when making purchases online (Gefen, 2000).

Apart from that, user experience factors are also considered in making online purchase decisions (Hoffman, Novak & Peralta, 1999). Next, convenience and time-saving factors also influence individuals to buy online through interaction with online displays (Szymanski and Hise, 2000). Meanwhile, a website display that is fast, organized, and easy to manage will provide maximum satisfaction to users (Chung-Hoon & Young-Gul, 2003) in addition to providing a good experience for users to continue making online purchases with the company (Griffith, Krampf and Palmer, 2001).

Therefore, this study was carried out to identify the factors that influence the students' tendencies, namely financial management, time management, marketing skills and usage of mobile apps and success factors of running an online business.

Research Objective

This research aims to address the following key research objective that is to determine whether student financial management aspect impacts the performance of an online business.

Scope Of the Study

This study aimed to examine the factors that influence university students' online business success. This study concentrates to identify factors that affect online business performance among university students in the area of Klang Valley at Selangor and Kuala Lumpur, Malaysia. This research will be conducted by quantitative research using the survey method and the data will be collected using questionnaires.

Literature review

Financial Management

Abdul-Rahman and Zulkifly (2016) describe financial management as an art and a science that businesses and people use to achieve economic theory and accounting goals. According to Lusardi and Tufano (2008), financial literacy is the capacity to make simple financial management choices based on fundamental information. This demonstrates that the practice of financial management is based on an individual's knowledge and abilities. Financial management is not just concerned with people, but also with safeguarding a country's financial stability and mitigating the danger of a financial disaster. Willis (2008) stated that inadequate financial management would precipitate a worldwide financial catastrophe.

Credit Counseling and Management Agency is a government-established organization in Malaysia whose mission is to give counseling and consultancy services to persons who have problems managing their money (AKPK). Numerous researchers, such as Noraihan, Hasmida,

& Jaafar (2013) and Abdul-Rahman & Zulkifly (2016), have determined that financial knowledge is crucial for assisting parties in managing their money. Thus, AKPK took the initiative to establish a course on personal financial management that would be implemented by the Institute of Higher Education (IPT) in Malaysia. This course will include information on financial conduct and acceptable spending habits. Nonetheless, research by Mandell and Klein (2009) indicated that financial knowledge cannot assist students in the United States in managing their money, and students who lack financial understanding will likewise have more difficulties managing their finances.

Apart from knowledge, spending habits are also seen as a factor that can affect how people manage their money. However, according to Noraihan et al. (2013), based on observations and key findings from previous research, it is the students themselves who set their spending habits. In addition, Karen (2005) revealed that family and friends had a greater effect on the financial management of over 90 percent of students. In terms of necessity, John Abdullah and Ahmad (2007) contrasted school and higher education institutions, noting that higher education institutions had greater budgetary requirements than schools. Consequently, students should take a significant part in managing their resources with more prudence.

Furthermore, the uncertain cost of living as explained by Jusoh and Mohd Noor (1998) can be an urgent need for students in determining their daily expenses. Similar to a study by Yakob, Janor, & Thursday (2015) that found that high tuition costs in America contribute to an increase in the number of non-performing loans among students. Individuals are also given the choice of whether to spend everything, half spend and save half, or save and invest as suggested by Mohd. Yunus (2005). The choice made by the individual is important because otherwise, the expenses made without the right choice will cause the expenditure to exceed the available financial resources as evidenced by Mamat et al. (2013) in his study of students at Polytechnic Tuanku Sultanah Bahiyah.

The challenge for entrepreneurs is to plan a business that involves low cost and is relevant to the main challenge before stepping into the establishment of a real business. Entrepreneurs prefer to generate business ideas that meet the needs of customers but involve high costs. As a result, the business survives only for a short period. According to the study of Gusniar et al. (2014), an individual should start a business that uses small capital, saving production time and energy. An individual who has just ventured into the field of entrepreneurship needs to choose a small business and the business is managed at a low cost to help reduce the burden on society (Faradillah, Samsudin, & Ali, 2015).

However, Fuentelsaz et al. (2018) have a different perspective and find that the low cost of starting a business will limit various initial expenses and risk the business to grow. This is because a good profit is a factor in choosing an entrepreneurial career compared to venturing into a business that gives low profits, but entrepreneurs only release low capital and are afraid to take risks. Similarly, in this study, it is expected that financial management is particularly influenced by successful online business among university students.

Success Factors of Running an Online Business

The cyber world has no borders. With unlimited quantity transmission capacity through the Internet, information can cross national borders. Users from all corners of the world have the opportunity to communicate freely, exchange information, and engage in any online activities. The Internet is also considered a vehicle for commercial transactions as an effective platform

in e-commerce. Online buyers also consider the Internet as a source for obtaining detailed product information (Phaik-Harn Chua Adeline 2008).

Many researchers have stated that trust is a factor that affects the growth of e-commerce success (Hoga Saragih and Rizky Ramdhany, 2012, Citra Kusuma Dewi, 2015). The concept of trust is important because it affects several important factors for online transactions, including security and privacy. Although e-commerce brings benefits to both sellers and customers, it also has limitations such as physical separation between buyers and sellers, and between buyers and merchandise. Salespeople must develop trustworthy relationships to foster customer loyalty to reduce barriers (Thompson S.H. Teo & Jing Liu, 2007). Whereas, according to Radetya Agung Wibowo (2015), an online business requires mutual trust. If there is no trust, the transaction cannot be done. Every company or anyone who does business online needs to protect the trust of its users.

Methodology

Research Design

This research design for this study is to analyse the successful factors of online business among university student in Klang Valley area. The researcher used the success factors of running an online business as dependent variable and financial management, time management, skill marketing and usage of mobile applications as independent variables for the study. Research design is important to determine the type of data, data collection technique and sampling method in order to achieve research objective (Burns and Bush, 2022). The basic research design used for this study is a survey method using questionnaires.

Theoretical Framework

The conceptual framework for this study was designed toward exploring the factors affecting successful online business among university student on selected identifiable independent variables. The selected factors that influence the successful online business were financial management, time management and marketing skills and usage mobile apps based on amin et al. (2007). Based on the Figure 3.1, the diagram for the theoretical framework is as follows:

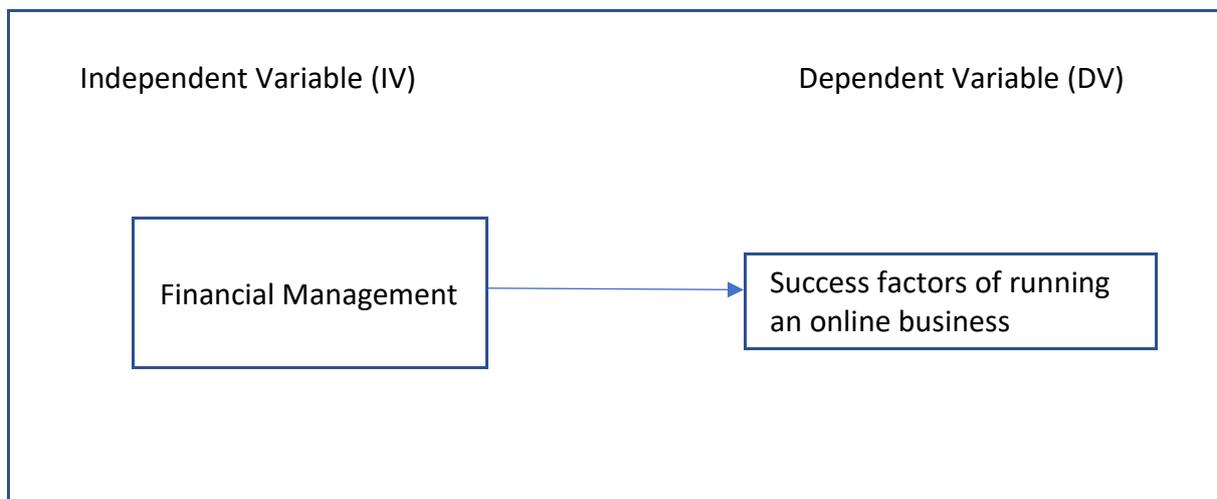


Figure 3.2: *Theoretical Framework*

Figure 3.2 shows the purpose of theoretical framework for this research which was created, applied and altered into the objective of this study. Based on above proposed theoretical framework financial management, time management and marketing skills and usage of mobile app are chosen as the independent variable (IV) while the success factors of running an online business are chosen as dependent variable (DV). The variable will be used to test the success factors of running an online business among university student in Klang Valley, Selangor and Kuala Lumpur.

Conclusions

Every year, it was acknowledged that thousands of university students graduated and ready to jump into job bandwagon. Due to current economics condition, most of them seem to be struggling in search for and applying for the jobs. Thus, online business become a part of solution for young people to build new future and generate income for their lives. Theoretically, by successfully exploiting the potential and opportunities lies in the market as well as be able to grab incentives provided by the government, hence young people may become as successful online entrepreneur. However, it is crucial to note that until presence there is inconclusive finding on key success factor for online business. In particular, the one that studied the impact of financial management, time management as well as marketing and mobile application abilities contribute towards the success of online business.

References

- Abd Aziz, N. N., & Abd Wahid, N. (2018). Factors influencing online purchase intention among university students. *International journal of academic research in business and social sciences*, 8(7), 702-717.
- Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish journal of emergency medicine*, 18(3), 91-93.
- Bose, S. C., Kiran, R., & Goyal, D. (2019). Critical success factors of agri-business incubators and their impact on business. *Custos e Agronegocio*, 15(1), 352-378.
- Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online learning readiness among university students in Malaysia amidst COVID-19. *Asian Journal of University Education*, 16(2), 45-58.
- Civelek, M., Gajdka, K., Světlík, J., & Vavrečka, V. (2020). Differences in the usage of online marketing and social media tools: evidence from Czech, Slovakian and Hungarian SMEs. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 15(3), 537-563.
- Dasuki, R. E. (2021). Digital Marketing and Financial Management: How to Increase UMKM income in the Middle of Pandemic Covid-19. *Dialogos*, 25(2), 283289.
- Guetterman, T. C. (2019). Basics of statistics for primary care research. *Family medicine and community health*, 7(2). Retrieved from: https://scholar.google.com/scholar?output=instlink&q=info:r9LmWbnEJ7QJ:scholar.google.com/&hl=en&as_sdt=0,5&as_ylo=2018&as_vis=1&scillfp=14603886657935173274&oi=lle. [Retrieved on: 29.10.2022]
- Hamat, A., & Hassan, H. A. (2019). Use of social media for informal language learning by Malaysian university students. *3L: Language, Linguistics, Literature*, 25(4), 68-83.

- Krizanova, A., Lăzăroiu, G., Gajanova, L., Kliestikova, J., Nadanyiova, M., & Moravcikova, D. (2019). The effectiveness of marketing communication and importance of its evaluation in an online environment. *Sustainability*, *11*(24), 7016.
- Kumar, S., Xiao, J. J., Pattnaik, D., Lim, W. M., & Rasul, T. (2021). Past, present and future of bank marketing: a bibliometric analysis of International Journal of Bank Marketing (1983–2020). *International Journal of Bank Marketing*.
- Nadzira, N., Setiyawan, S., & Wiyarni, W. (2020). Revealing Online Media Marketing Communication Strategies on Instagram and Whatsapp during COVID-19 Pandemic (Case Study at MSME in Malang, East Java, Indonesia). *International Journal of Business Marketing and Management (IJBMM)*, *5*(11), 84-92.
- Naseri, R. N. N. (2021). What is a population in online shopping research? A perspective from Malaysia. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, *12*(4), 654-658.