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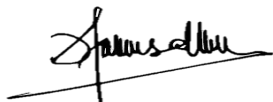Management and Accounting

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INTEGRASI ASEAN KE ARAH PERKONGSIAN KEMAKMURAN
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International Conference on Economics, Management and Accounting

Asean Integration Towards Shared Prosperity in Global Uncertainty

25 - 27 OCT 2021

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CONFERENCE PROCEEDINGS

Editors:
Nur Sa'adah Muhamad
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THEME:
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IN GLOBAL UNCERTAINTY

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"MIICEMA 2021 CONFERENCE PROCEEDINGS"

Editors:
Nur Sa'adah Muhamad
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"*ASEAN Integration Towards Shared Prosperity*"
26-27 October 2021

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ABOUT MIICEMA2021

The 21st Malaysia-Indonesia International Conference on Economics, Management and Accounting (MIICEMA2021) was held on 25th to 27th October 2021 and organized by the Faculty of Economics and Management, Universiti Kebangsaan Malaysia. For the first time since its inception 20 years ago, MIICEMA2021 was conducted virtually via the online platform.

Malaysia-Indonesia Cooperation in Economics, Management and Accounting was first coined in 1993 at a meeting in Bangi, Malaysia, with its first conference hosted by Universitas Syiah Kuala, Banda Aceh, Indonesia in the same year. MIICEMA was founded as an academic collaboration between Universiti Kebangsaan Malaysia (UKM) through its Faculty of Economics and Management (FEP) and five Indonesian universities namely Universitas Syiah Kuala, Institut Pertanian Bogor, Universitas Muhammadiyah Surakarta, Universitas Bengkulu and Universitas Padjadjaran. The mission of this cooperation then was to create a formal networking between UKM and the pioneering Indonesian universities, and to foster the academic collaboration and camaraderie between its members. Fast forward to two decades later, 29 universities and institutes from Malaysia and Indonesia are now the permanent members of this cooperation.

Following the tradition of the long-established friendship, the honour of becoming the organizer and to host the 21st instalment of MIICEMA has been given to FEP UKM, in conjuction with the UKM's 50th anniversary in 2020. However, due to the sudden global outbreak of the COVID-19 pandemic, the 21st MIICEMA, which was planned to be held in Bangi, Malaysia had to be postponed for one year.

The theme chosen for MIICEMA2021 is: 'ASEAN Integration Towards Shared Prosperity In Global Uncertainty'. The topics of interests accepted for presentations include, but are not limited to management, business, accounting, banking, economics, entrepreneurship, finance, marketing, supply chain, logistics, transportation, tourism, hospitality, health care, human resource, government, management, administration and law.

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Mohd Izzuddin bin Adanan
Mustazar bin Mansur
Hazrul Izuan bin Shahiri
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Mohd Zukime bin Mat Junoh
School of Business Innovation and Technopreneurship,
Universiti Malaysia Perlis, Malaysia

ABSTRACT

Industri getah merupakan sektor ekonomi yang menyumbang pendapatan di kalangan isi rumah berpendapatan rendah di seluruh Malaysia. Sektor ini sangat dinamik dan sangat tidak menentu disebabkan sifat struktur pasarannya seakan-akan pasaran persaingan sempurna. Hal ini demikian kerana pasaran ini sangat dipengaruhi oleh faktor-faktor seperti harga getah SMR20 di pasaran, kadar tukaran asing, penggunaan domestik, eskport, import serta harga barang pengganti. Keadaan ini menyebabkan pendapatan pekebun kecil getah berada di tahap yang rendah di dunia dan juga di Malaysia. Hal ini menyebabkan kerajaan perlu membuat pelbagai dasar bagi membantu pekebun kecil seperti memberi insentif pengeluaran, subsidi baja, bantuan musim tengkujuh, penanaman semula dan sebagainya.

Testing Threshold Relationship Between Budget Balance and Institutional Quality

Lee Chee Loong
Riayati Ahmad
Zulkefly Abdul Karim
Norlin Khalid
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

The budget deficit and government debt are vital policy instruments in promoting sustainable growth. Most countries in the world are facing prolonged budget deficits in order to stimulate the economy. However, prolonged budget deficits and debt mounting will put nations at greater risk of economic crisis and fiscal sustainability. The persistence of fiscal deficits may also be due to institutional quality in a country. Better institutional quality reflects a more transparent and more robust external monitor on the operation of fiscal policy, where fiscal authorities cannot abuse political power by manipulating budgets and thereby restricting prolonged budget deficits. Hence, this study aims to examine the direct impact and threshold impact of institutional quality on budget balance using the fiscal reaction function model. The model was empirically tested for 83 countries over 1996-2017 using a panel threshold regression approach. The most prominent finding in this study is the positive impact of institutional quality on the budget balance. Higher quality of institutional help to improve budget balance and enhance debt sustainability. However, this condition applies to lower-middle and low-income countries only. The second significant finding was that no threshold effect of institutional quality was observed on debt sustainability. Therefore, fiscal authorities in lower-middle and low-income countries should improve their institutional qualities to reduce budget deficits and government debt. However, no minimum target of institutional quality is required for debt sustainability. Besides that, all countries should be aware of their fiscal authorities' budget and debt conditions to be able to reinforce prudent fiscal policy to prevent future debt crises.

Does Quality Signals Really Help The Crownfunding Covis-19 Related Campaigns in Malaysia?

Suhaili Alma'amun
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Unprecedented CoVid19 pandemic is affecting so many lives, businesses and economy. People use crowdfunding to raise and donate money for a range of causes related to CoVid19. However, this does not guarantee that all related Covid-19 campaigns on the crowdfunding platforms are able to achieve the funding target. Supporters will select to support campaigns which they believe have quality and to make such decision, they rely on signals. It requires right approach. Past studies imply that the project owners should deliver the right signals to the supporters. This can be explained by the signaling theory. This study aims to investigate signals of the quality of the project that theoretically influences the performance of the campaigns. Data collected from Malaysian-based donation based platforms are analyzed using Ordinary Least Square (OLS) regression. Six explanatory variables were significant namely target funding, words, social networks, updates, comments and duration. These significant variables are quality signals that require more attention from funders to ensure their campaigns perform better in terms of the funding amount raised.

Construction Services Policy Impact on Indonesia Macro Economic Indicators

Meylina Deliana Hasbullah
Eleonora Sofilda
Muhammad Zilal Hamzah
Faculty of Economics and Business,
Department of Economics,
Universitas Trisakti, Indonesia

ABSTRACT

The construction sector is one of the mainstay sectors to encourage economic growth. Seeing the strategic role of the construction sector for the economy and the future challenges that must be faced, the role of fostering by the government is the main key to increasing the competitiveness of national construction services in order to be able to face the dynamics of domestic and foreign market developments. This study aims to determine and analyze the impact of construction services policies on Indonesia's economic growth.

The research method used in this paper is the computable general equilibrium (CGE) economic model. This model is based on 2015 SNSE data. This research is limited to some macroeconomics factors that affected by construction service development in the 2015-2019 period.

The results showed the magnitude of the positive impact of the construction services policy on national economic growth, inflation rate, tax revenue, investment growth, household income, household consumption, export growth, and import growth through the budget size used as a shock in the CGE model. Based on the simulation results, it is also known that the increase in the construction services sector budget during the study period still had a negative impact on national export growth.

Research recommendations related to construction service policies are that the government needs to encourage the issuance and implementation of laws and regulations and regulations; both at the central and regional levels that contribute to national economic growth, as well as increase the production of import substitution needs in the implementation of construction services development, such as heavy construction equipment, steel and asphalt materials.

Keywords: public policy, construction services; macroeconomic, static CGE

The Design Model of Halal Product Assurance Implementation

Nur Diana Dewi
Muhammad Zilal Hamzah
Eleonora Sofilda
Faculty of Economics and Business,
Department of Economics,
Universitas Trisakti, Indonesia

ABSTRACT

The majority of Indonesia's population is Muslim in the amount 87.21% of a total of 237 million people (BPS, 2020). However, this is not directly proportional to the lack of halal product certification in Indonesia. BPJPH is assigned to organize Halal Product Assurance (JPH). With the insufficient number of halal auditors from the number of producers or entrepreneurs, the JPH Law obstructed then the socialization is still not massive. The study aims to determine the implementation of halal product assurance certification in Indonesia by analyzing the Indonesia and Malaysia certification without neglecting the readiness of LPPOM MUI and BPJPH in facing changes to the halal certification regulations of JPH Law. The research method was the interview and FGD techniques. The data was processed by NVivo 12. The implication of this research shows that the JPH Law can organize effectively with the hard work of BPJPH that plays an active role in carrying out its functions and synergizing the stakeholders. The implementation model of halal product assurance adjusted to the strategy and work plan for JPH by emphasizing the increasing stakeholder involvement, G2G Cooperation, and SME (Small and Medium Enterprises) Development.

Keywords: Halal Product Assurance Certification, BPJPH, JPH Law, Halal Product Assurance Model, Halal Stakeholders

Deregulation Policy of Bankruptcy Regulation in Effort to Promote the Indonesian Ease of Doing Business

Dulyono
Ministry of Law and Human
Rights Indonesia

Muhammad Zilal Hamzah
Aidir Amin Daud
Eleonora Sofilda
Faculty of Economics and Business,
Department of Economics,
Universitas Trisakti, Indonesia

ABSTRACT

The resolution of bankruptcy case is an important part of supporting the ease of doing business in Indonesia. This study aims to analyze the effect of deregulation policies, especially bankruptcy regulations in Indonesia on the easy of doing business program. So that investors can find out the ranking of the ease of doing business in Indonesia, a guaranteed investment climate, which in the end is expected to be able to boost Indonesia's economic growth.

This study uses data obtained from primary and secondary data sources. Primary data is obtained using the focus group discussion (FGD) method, while secondary data is obtained from available documentation from related institutions. Furthermore, the data in this study were analyzed by using qualitative methods and NVivo analysis tools.

The results show that in practice in the field of debt settlement problems through bankruptcy institutions. There are many problems, the Bankruptcy Law is considered too simple and very easy for debtors to declare bankruptcy. There are many norms contained in Law no. 37 of 2004 concerning Bankruptcy and PKPU, which are no longer relevant to the development of the business world. There are many norms contained in Law no. 37 of 2004 concerning Bankruptcy and PKPU, which are no longer relevant to the development of the business world, such as the norms for the implementation of bankruptcy, the magnitude of the bankruptcy rate, the rules relating to the perpetrators of implementing the bankruptcy trial.

The recommendations in this study indicate that through a programmed economic policy package, amendments to Law No. 37 of 2004 concerning Bankruptcy and PKPU, should be a priority to be carried out immediately.

Keywords: Bankruptcy, Ease of Doing Business, FGD, NVivo

Categorizing the Components of Inclusive Innovation by Categorical Principal Components Analysis (CATPCA)

Nasir Saukani
Rubayah Yakob
Lai Wei Sieng
Faculty of Economic and Management,
Universiti Kebangsaan Malaysia, Malaysia

Noor Azina Ismail
Faculty of Economics and Administration,
University of Malaya, Malaysia

ABSTRACT

For many developing economies, including Malaysia , inclusive innovation is a promising concept in efforts to combat development issues such as poverty, unemployment, and income inequality. Inclusive innovation is all about innovation that can be access and use easily at a lower or zero cost by the the poor and marginalized population. Despite its huge potential in creating economic and livelihood opportunities, the consensus on the exact definition and components of inclusive innovation is far from be reached. Generally, the nature of data on inclusive innovation is a combination of non-numeric types (nominal and ordinal) and numeric and encompass many variables. This challenges the researcher to find the best way to reduce these data to a small number of composites to be used as a proxy of measurement in further analysis. Categorical Principal Components Analysis (CATPCA), is an alternative procedure to the Principal Component Analysis (PCA), suitable for variables of mixed measurement levels (nominal, ordinal, and numeric). Based on theory and past studies, questionnaires have been constructed and fieldwork has been carried out to gather data on inclusive innovation in Malaysia. Later, using CATPCA, this study will categorize the components of Malaysia inclusive innovation. The results indicates that the CATPCA has categorized inclusive innovation into five components i.e. affordable access, sustainability, quality goods and services and livelihood opportunities, access to the excluded population and significant outreach.

Keywords: Inclusive innovation, Categorical Principal Components Analysis (CATPCA), affordable access, sustainability, quality goods and services and livelihood opportunities, access to the excluded population, significant outreach

Transportation Infrastructure Policy on Regional Economic Growth

Diyono Bambang Ledoh
Indonesia Transport Ministry

Eleonora Sofilda
Muhammad Zilal Hamzah
Faculty of Economics and Business,
Department of Economics,
Universitas Trisakti, Indonesia

ABSTRACT

The purpose of this study is to determine the impact of transportation infrastructure on regional economic growth in Jabodetabek. This study uses secondary data that collected from BPS and uses Leontief's input-output and gravity migration model in its analysis.

The results showed that: (i) Construction sector in this case transportation infrastructure sector and the transportation service sector had an impact on the regional economic growth of Jabodetabek (GRDP), namely 2.37% and 3.69% respectively and contributed to the final demand for the Jabodetabek region; (ii) Transportation infrastructure with an Output Multiplier, Labor Multiplier and Income Multiplier has a positive impact on output in all sectors of the Jabodetabek economy; (iii) Transportation infrastructure, economic growth, land use have an impact on travel demand in the Jabodetabek region, namely people's trips by commuter line/KRL, people's trips using public transportation, and people's trips by private transport and motorbikes. Cities with higher economic growth have a positive impact as centers of travel stir and pull. Meanwhile, travel time and the total general cost of travel have a negative effect on travel demand. For the total population, it has a negative effect on the demand for public transport but has a positive effect on the demand for private transport.

The implication of this study shows that the use of the gravity model of migration by Ravenstein and Anderson cannot be used for Jabodetabek areas with very good transportation access. Jabodetabek is one unit so that the distance factor is no longer an obstacle. The attractiveness of inter-regional travel within Jabodetabek is the economic sector and population activities. The recommendation of this research is that in every infrastructure investment, especially transportation, in each region it is not only seen as a single or separate multiplier but needs to be analyzed in a comprehensive multiplier perspective.

Keywords: Regional Economic, Input-Output Analysis, Economic Development, Transportation, Migration

Systematic Literature Review on the Empirical Evidence in Waqf Studies

Nurul Hidayah Md Razali
Rubayah Yakob
Mohd Hafizuddin Syah Bangaan Abdullah
Shahida Shahimi
Roziana Baharin
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Sajiah Yakob
Kulliyyah of Muamalat & Management Sciences,
Universiti Islam Antarabangsa Sultan Abdul Halim Mu'adzam Shah, Malaysia

ABSTRACT

The purpose of this study is to examine the state of the art in the quantitative approach of waqf studies with regard to issues, variables, and theories/ models that has been used previously. The review of the study was based on the reporting standards for Systematic Literature Review (SLR). This study selected articles using two leading databases namely Scopus and Web of Science. By identifying 23 out of 428 waqf studies that used quantitative research approaches was published by Scopus and Web of Science throughout 1914 until 2019, we find that this review has 16 issues that are categorized into 9 themes namely 1) cash waqf; 2) technology; 3) micro-finance; 4) accountability; 5) governance; 6) efficiency; 7) poverty alleviation; 8) management and 9) education. The study exposes all the variables used for each article that involving the dependent, independent, and mediating variables. Lastly, this review of the study reveals the eight theories/models used previously namely 1) Theory of Reasoned Action; 2) Theory of Planned Behavior; 3) Technology Acceptance Model; 4) Rasch Measurement Model; 5) Commitment-Trust Theory; 6) Adult Learning Theory-Andragogy; 7) Malmquist Total Factor Productivity and 8) Theory of Altruism.

Keywords: Waqf, Islamic endowment, Systematic Literature Review, quantitative

INTRODUCTION

Literally, waqf or also known as Islamic perpetual endowment earns a voluntary relinquishing of the right of a disposal of an asset by its owner and the dedication of its usufruct to several beneficiaries, as a charitable gift (Kahf, 2003; McChesney, 1991). Sadeq (2002) defined that waqf as a perpetual and voluntary charitable act which serves as a mechanism to strive for the main objectives of an Islamic economic system, namely equitable and just distribution of wealth. Socio-economic roles of waqf are indeed conspicuous in many aspects of life of the Muslims as well as the non-Muslims in several parts of the world (Noordin *et al.*, 2017). Iqbal and Ariff (2011) described waqf as 'the vehicle for financing Islam as a society'.

The verse that remark on waqf generally referred to *Qur'an*. Among them, the word of Allah SWT in surah *Al-Baqarah*, verse 261 which mean:

> "The example of those who spend their wealth in the way of Allah is like a seed (of grain) which grows seven spikes; in each spike is a hundred grains. And Allah multiplies (His reward) for whom He wills. And Allah is all-Encompassing and Knowing".

(Al-Baqarah, 2:261)

Next, Allah SWT remark on waqf value in verse 267 which means:

> "O ye who believe! Spend of the good things which ye have earned, and of that which We bring forth from the earth for you, and seek not the bad (with intent) to spend thereof (in charity) when ye would not take it for yourselves save with disdain; and know that Allah is Absolute, Owner of Praise".

(Al-Baqarah 2:267)

Both verses indicate that act of voluntarily contributes property or assets on matters for kindness. Islamic law stated that contribute the property of waqf is "*sunat*" as it is a good deed of charity and highly demanded in Islam (Nor Muhamad et al., 2015). From the perspective of Islam, waqf practice is not just a worship that is intended to do goodness and to draw closer to Allah SWT solely, but the application of waqf also plays a major role in developing the economy of the Ummah (Masruki & Shafii, 2013). In that respect, waqf has been widely recognized as one of the most crucial third sector in the Islamic heritage over the last few decades (Arshad et al., 2018). Regards as third sector of the country's economy, waqf acts as a mechanism for poverty alleviation and a catalyst for the country's socio-economic growth through the development of commercial projects, social projects and others (Masruki & Shafii, 2013; Mahmood & Hamed, 2017; Noraina Mazuin & Nur Azni 2021). Waqf has been proven actively contribute towards the development of education system (Gaudiosi, 1987; Hilmiyah et al., 2013; Yayasan Waqaf Malaysia, 2019) and improvement of social welfare through the establishment of health waqf (Cizacka, 1998; Norsiah & Farahdina, 2009; Yayasan Waqaf Malaysia, 2019). In addition, on the economy-wide basis, waqf contributes positively towards the expansion of domestic economy through agriculture, plantation (Abd Mutalib & Maamor, 2016; Ab. Rahman et al., 2017) and manufacturing (Magda, 2012).

Consequently, waqf is the backbone of the Islamic economy which has been the catalyst for economic development in various aspects of life since the time of Prophet Muhammad s.a.w (Mohd Ali et al., 2015; Abdullah 2018). Even today, waqf is still relevant in order to improve the quality of life, reduce income inequality and poverty, and improve the well-being of the Ummah economy. With respect to administration and management of waqf, waqf institutions are placed under scrutiny by the relevant authority and being subjected to a thorough appraisal of various performance-related aspects including their effectiveness in managing fairly sizeable amount of endowment and efficiency in allocating charitable resources (Noordin et al., 2017). The development of waqf is not limited to religion matter but also important in the aspect of humanity to empower the potential of public welfare accordance with the requirement of Shariah (Pitchay et al., 2014; Rusydiana & Al-Farisi, 2016; Yayasan Waqaf Malaysia, 2019).

Based on the development of waqf and the importance in solving the economic problems in Muslims countries, many studies have been done by the researcher and academicians that focusing on waqf areas of research recently. Nevertheless, most of the waqf studies were conducted by previous researchers was used the qualitative approach compared to the quantitative approach (Atan & Johari, 2017). Qualitative research approaches is a form of social action that stresses on the way of people interpret, and make sense of their experiences to understand the social reality of individuals (Mohajan, 2018; Zohrabi, 2013). Qualitative research approaches comprises of the following methods: logic, ethnography, discourse analysis, case study, open-ended interview, participant observation, counselling, therapy, grounded theory, biography, comparative method, introspection, casuistry, focus group, literary criticism, meditation practice, historical research, etc. (Cibangu, 2012). It is exploratory, and seeks to explain 'how' and 'why' a particular social phenomenon, or program, operates as it does in a particular context (Mohajan, 2018). It cannot be denied that this method has its own advantages, however there are some disadvantages that should not be overlooked. Silverman (2010) argues that qualitative research approaches sometimes leave out contextual sensitivities, and focus more on meanings and experiences. The policy-makers may give low credibility to results from qualitative research approaches. In addition, purely qualitative research approaches may neglect the social and cultural constructions of the variables studied (Richards & Richards, 1994). In addition smaller sample size in qualitative research raises the issue of generalizability to the whole population of the research (Harry & Lipsky, 2014; Thompson, 2011). Lam (2015) also confirmed that the results of the study could not be generalized to other contexts.

Meanwhile, the quantitative method involves counting and measuring events and performing the statistical analysis of a body of numerical data. This research method attempts to investigate the answers to the questions starting with how many, how much, to what extent (Rasinger, 2013). In other words, the method lays heavy stress on measuring something or variables existed in the social world. Payne and Payne (2004) stated that, "Quantitative research approaches (normally using deductive logic) seek regularities in human lives, by separating the social world into empirical components called variables which can be represented numerically as frequencies or rate, whose associations with each other can be explored by statistical techniques, and accessed through researcher-introduced stimuli and systematic measurement." The quantitative research approaches focuses on those aspects of social behavior which can be quantified and patterned rather than just finding out them and interpreting their meanings the people bring to their own action. The results of the research obtained through quantitative can solve the shortcomings of qualitative research approaches. The quantitative findings are likely to be generalized to a whole population or a sub-population because it involves the larger sample which is randomly selected (Carr, 1994). Then, quantitative research approaches is to be based on positivist

paradigm of measuring variables (Kauber, 1986). Moreover, the quantitative research can explain the relationship between two variables namely independent and dependent variables in a population.

Therefore, it is time for researchers to step into quantitative research approaches in waqf studies where such studies are still very limited. Despite that, this raises questions about 1) What are the issues that have been discussed in the quantitative approach of waqf studies? 2) What are the variables used in the quantitative approach of waqf studies? and 3) What are the relevant theory/model in the quantitative approach of waqf studies? Hence, this study aims to present Systematic Literature Review (SLR) for examining the state of the art in the quantitative approach of waqf studies with regard to issues, the variables and the theory/model that has been used previously. SLR is the process of identifying, evaluating, and interpreting all existing research evidence with the aim of providing answers to every question in a particular research (Salleh et al., 2011; Mohamed Shaffril, Samsuddin & Abu Samah 2020). In addition, Rekik et al., (2018) also stated that SLR is generally intended to provide a good overview of existing research and develop it within the same scope. To the best of our knowledge, no similar study has been found analyzing the quantitative approach in waqf studies. The results of the study are intended to expose researchers to current levels of waqf research and provide guidance for exploring other issues and problems and expanding existing research particularly in quantitative research.

The remainder of this study is organized such as follows: The next section provides an overview of the review method of SLR. These were followed by the section that details out the methodology and the SLR results presented to answer the research questions. Finally, the conclusions and directions for future research are presented in the last section.

THE REVIEW METHOD

SLR aims to present a fair evaluation of a research topic by using a trustworthy, rigorous, auditable methodology and are also useful for determining research gaps or information needs (Kitchenham & Charters, 2007; Sierra-Correa et al., 2015; Mohamed Shaffril et al., 2020). SLR is often applied within related research disciplines such as agriculture, climate change adaptation, education, health sciences, information systems, knowledge management, nursing, business and management and others (Rathi et al., 2016; Wiréhn, 2018; Al-Tabbaa et al., 2019).

A few experts in SLR like Kitchenham and Charters (2007) and Denyer and Tranfield (2009) describes the general steps to produce SLR. According to Kitchenham and Charters (2007), there are three steps in making SLR that consists of planning, conducting and reporting the review as shown in Figure 1. Later, Okoli and Schabram (2010) extended a step-by-step guide for SLR. In his guide to SLRs, they use steps that are almost identical as that guided by Kitchenham and Charters (2007). However, it is different in terms of the flow and classifies studies that treat a subject of interest. According to Petticrew and Roberts (2006), the flow of SLR guided by Kitchenham and Charters (2007) is valuable comparing other SLR guides. On the other hand, it gives a very clear outline of the flow of a published SLR, indicating what should be reported (Luyi et al., 2017; Rekik *et al.*, 2018). Therefore, this study will implement SLR based on this procedure guideline shown in Figure 1.
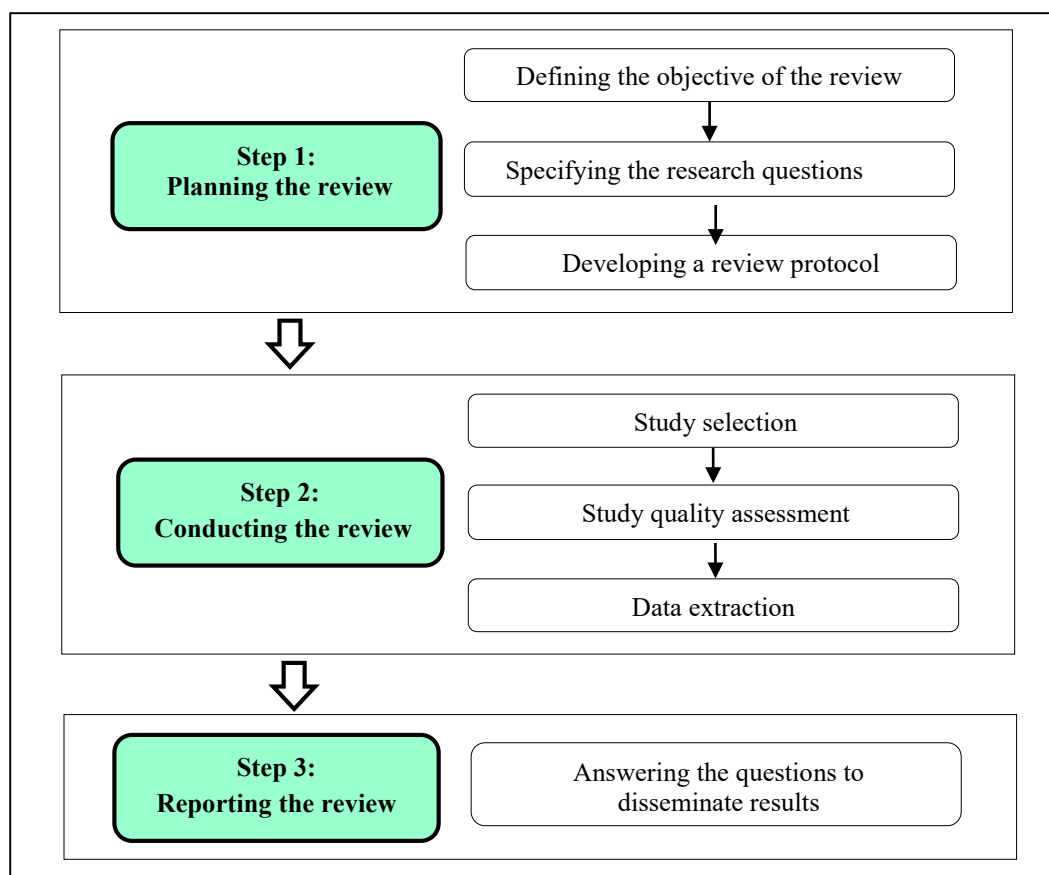
FIGURE 1: A systematic guide of SLR
Source: Kitchenham and Charters (2007) and Rekik et al., (2018)

The aim of the first step "planning the review" is to define the objective and research questions (RQs) of the SLR and a clear review protocol. The review protocol specifies the adopted search process strategy and a set of established inclusion and exclusion criteria to select a publication. The second step "conducting the review" is for executing the protocol. In the third step, we report the obtained results.

METHODOLOGY

Planning the Review

A. Specifying Objective and RQs

Studies on waqf have successfully caught the attention of researchers to discuss its various focus of waqf research. It has been seen for past studies that were discussed and has become an intensive discussion among the researchers. Few studies have been conducted and gained popularity among the researcher regarding the waqf potential in terms of poverty alleviation (Saifuddin et al., 2014; Diniyya 2019; Ziyaviddinovna & Sagdullaevich 2020). The researchers also focus on the discussion of waqf potential in eradicating poverty considering that it has always been one of the top agendas in both developed and developing countries. Among the popular waqf research studied by previous researchers was focused on the discussion of the lack of liquid funds (cash waqf). Most of the studies focus on the discussion of lack of financial fund will cause many waqf development projects which have been planned cannot be executed. Moreover, a number of researchers have revealed the prolonged conflicts in the administration and management of waqf property (e.g. idle waqf lands) have inhibited its development and expansion (Ismail et al., 2015; Abas & Raji 2018; Qurrata et al., 2020).

The studies on waqf conducted by the researchers revealed that various aspects of waqf have been discussed. This study presents SLR as an attempt to examine the state of the art in waqf quantitative research approaches. The quantitative studies of waqf are relatively difficult

to obtain compared to qualitative studies. Nonetheless, quantitative studies of waqf are seen to be of greater interest lately. Thus, the RQs to be answered in this study are as follows:

RQ1: What are the issues that have been discussed in the quantitative approach of waqf studies?

RQ2: What are the variables used in the quantitative approach of waqf studies?

RQ3: What is the relevant theory/model in the quantitative approach of waqf studies?

B. Review Protocol

1) Search Strategy

A search was conducted in June and July 2019 using two electronic databases: Scopus and Web of Science. Scopus is one of the largest abstracts and citation databases of peer-reviewed literature with more than 24,600 journals from 5000 publishers worldwide (Elsevier, 2019). Scopus consists of diverse subject areas such as environmental sciences, social science and agriculture and biological sciences (Elsevier, 2019). Meanwhile, The Web of Science is a robust database consisting of more than 33,000 journals with coverage of over 256 disciplines including subjects related to environmental studies, interdisciplinary social sciences, social issues and development and planning (Clarivate Analytics, 2019). It includes over 100 years of comprehensive back file and citation data, established by Clarivate Analytics and ranks them by three separate measures: citations, papers, and citations per-paper (Clarivate Analytics, 2019). A series of search strings was used in identifying the right articles which includes keywords such as "waqf", "waqaf", "wakaf", "awqaf" "Islamic endowment", and "Islamic endowment fund" (see Table 1). Another effective method of article search is the backward and forward snowballing proposed by Wohlin (2014). However, it is not appropriate for this study as this study focuses on articles within database of Scopus and Web of Sciences only.

TABLE 1: The search string used for the SLR process

Databases	Keywords Used
Scopus	TITLE-ABS-KEY ("waqf*" OR "waqaf*" OR "wakaf*" OR "awqaf*" OR "Islamic endowment*" OR "Islamic endowment fund*")
Web of Science	TS= ("waqf*" OR "waqaf*" OR "wakaf*" OR "awqaf*" OR "Islamic endowment*" OR "Islamic endowment fund*")

2) Inclusion and Exclusion Criteria

In the context of this study, we defined a set of inclusion and exclusion criteria based on the publication type, language, timeline, and indexed. The main purpose of this process is to ensure that all selected articles are in compliance with the criteria (Kitchenham & Charters, 2007; Sierra-Correa et al., 2015; Mohamed Shaffril et al., 2020).

With regard to the publication type, only article journal are selected, which means review papers, book series, book, chapter in book and conference proceeding are all excluded. The searching efforts also focused on articles published in English and Malay in the Scopus and Web of Science databases only. In terms of the year of the publication of the journal article, this study sets the earliest possible year. Therefore, the year of publication will be based on the year of the establishment of the two databases used that is from 1914 to 2019. According to Loh et al., (2019), an unrestricted year of publication will guarantee a comprehensive review. Next, only Scopus and Web of Sciences indexed journal articles are considered (indexes from Social Science Citation Index, Emerging Sources Citation Index and Art, Humanities Index, and Science Citation Indexed Expanded). Finally, this study does limit the nature of the study that focused on the quantitative approach compared to the qualitative approach and mixed method in waqf studies. The inclusion and exclusion criteria are summarized in Table 2.

TABLE 2: Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Publication type	Journal (research articles)	Review papers (systematic review or meta-analyses), book series, book, chapter in book, and conference proceeding
Language	English and Malay	Other than English and Malay
Resource	Scopus and Web of Science databases	Not available via Scopus and Web of Science databases
Timeline	Between 1914 until 2019 (Scopus) Between 1971 until 2019 (Web of Science)	<1914 <1971
Indexed	Social Science Citation Index, Emerging Sources Citation Index, Art and Humanities Index, and Science Citation Indexed Expanded (Web of Science)	None
Nature of study	Quantitative approach	Qualitative approach and mixed method

Conducting the Review

    A. Study Selection

Following the above search strategy, we conducted an article selection process as illustrated in Figure 2. Indeed, 912 studies were identified in the first search on the Scopus and Web of Science database. After reading the article title, abstract and keywords, 122 studies were omitted or removed because due to the overlapping of studies contained in both databases. Hence, the remaining studies totaled are 790 studies. Of the 790 studies, 362 studies were excluded due to applying the initial inclusion/exclusion criteria as appeared in Table 2. Thus, the retained articles are 428 studies. Finally, the review resulted in a total of 23 articles that were used for the quantitative approach. It is found that more articles were published by Scopus than Web of Sciences with 21 and 2 studies respectively.

    B. Study Quality Assessment

The quality aspects of the articles selected are very important. According to Palmarini et al., (2018), several criteria can be used to assess the quality of the articles including the clear objective of the study, clear study design, appropriate variables, sufficient data collection method, clear statistical techniques, and research questions are to be clearly answered. However, the articles selected in this study are published by Scopus and the Web of Sciences whose quality is guaranteed. This view is supported by Aksnes and Gunnar Sivertsen (2019), who writes that these databases applied the quality criteria that has been developed by the Norwegian Association of Higher Education Institutions with the assistance of its underlying national disciplinary committees and in collaboration with the Norwegian Ministry of Higher Education and Science. Archambault et al., (2006) also claimed that the quality assessment of these databases represents a significant strength for the study in different fields. Therefore, for quality criteria according to Palmarini et al., (2018), the articles in this study are said to meet these criteria completely.

    C. Data Extraction

During this stage, we collected all of the information needed to perform an in-depth analysis to address all of the RQs. We created a predefined extraction form to record the following data extracted from all of the selected studies as follows:
- Title of study
- Author(s) name
- Year publication
- Nature of study
- Geography of the study
- Findings
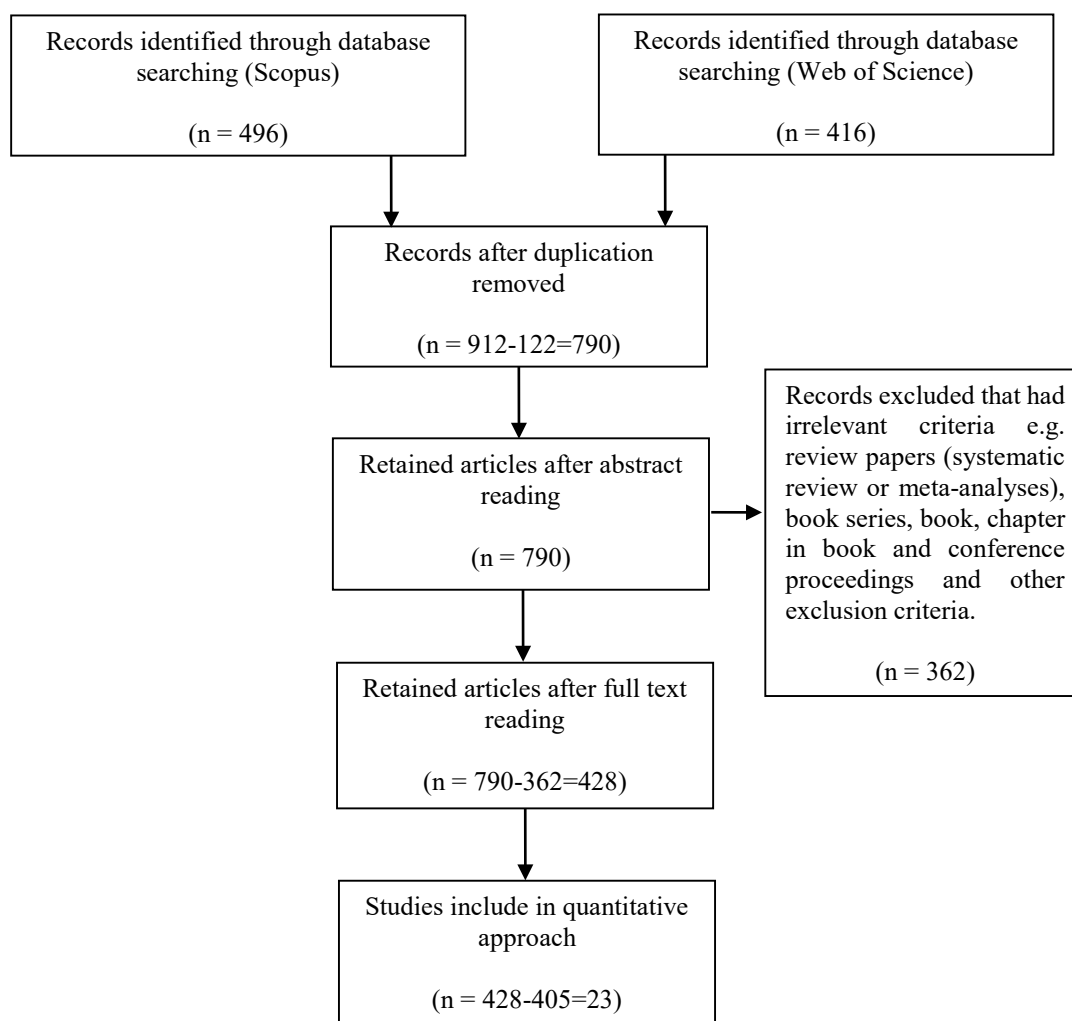
FIGURE 2: Flow of Study Selection

Reporting the Review

The final step of the SLR is reporting the review. Indeed, the reports are based on articles retrieved by the conducted review step and based on the RQs set out previously. After extracting the information from each study, we conducted an in-depth data analysis to answer each RQ.

RQ1: What are the issues that have been discussed in the quantitative approach of waqf studies?
Based on the reviews of 23 quantitative approaches of waqf studies, this study identified 16 issues that are categorized into 9 themes namely 1) cash waqf; 2) technology; 3) micro-finance; 4) accountability; 5) governance; 6) efficiency; 7) poverty alleviation; 8) management and 9) education (see Table 3). Each theme discusses related issues of studies. Table 3 illustrated 11 issues on cash waqf, 4 issues on technology, and 2 issues on micro-finance. While, the remaining studies focused on 1 issue on accountability, governance, efficiency, poverty alleviation, management, and education. A comprehensive clarification of the issues of each main theme as such as follows:

Cash waqf
A total of 11 studies shed light 5 issue regarding on lack of trust among waqf donors' to endow cash waqf (Abdul Shukor et al., 2019; Shariff et al., 2016), lack of giving behavior among cash waqf donors' (Abdul Shukor et al., 2016), lack awareness with regard to cash waqf (Adeyemi et al., 2016; Hasan et al., 2019), behavioral intention on cash waqf (Abdul Shukor et al., 2017; Pitchay et al., 2015; Rizal & Amin, 2017; Thaker et al., 2016; Zabri & Mohammed, 2018), and waqf donors' satisfaction (Shukor et al., 2017).

        Abdul Shukor et al., (2019) and Shariff et al., (2016), reveals that cash waqf donors' felt insecure with regards to the distribution of waqf fund, as they way not informed by the waqf institutions regarding on development of waqf assets has been done. On this basis, this phenomenon is affecting the direct

impact on waqf donors' trust to endow the cash waqf in waqf institutions. In fact, this issue affects the satisfaction of waqf donors' which leads to unpleasant perceptions of the waqf institutions (Shukor et al., 2017) and influences behavioral intention of waqf donor's to endow cash waqf (Abdul Shukor et al., 2017; Pitchay et al., 2015; Rizal & Amin, 2017; Thaker et al., 2016; Zabri & Mohammed, 2018). Likewise, Abdul Shukor et al., (2016) found that even though cash waqf has been implemented in Malaysia for a number of years and has the potential to promote the development of the ummah, the response of giving behavior among cash waqf donors received is still lacking and affects insufficient funds of scale to carry out a program with impact to the Ummah. Moreover, the lack of awareness toward philanthropic attributes resulted in a lower charity giving in waqf has been discussed by Adeyemi et al., (2016) and Hasan et al., (2019).

Technology
A total of 4 studies reported 3 issues regarding the use of technology through online waqf contribution among Muslims (Amin et al., 2014), mobile learning (Mhd Alkasirah & Mohd Nor, 2018), and crowdfunders' behavioural intention (Mohamed Thas Thaker et al., 2018; Mohd Thas Thaker, 2018).

Amin et al., (2014), stated that online waqf contribution of society at large is still at the infancy stage even though online waqf has been established as a viable solution to improve wealth redistribution amongst Muslims and extends its applicability in a Malaysia context. Likewise, the usage of mobile learning is still in the initial stage of implementation. This situation affects the potential usage of mobile learning via short message service (SMS) for disseminating information and enhancing the knowledge that focusing on waqf (Mhd Alkasirah & Mohd Nor, 2018).

Other studies conducted by Mohamed Thas Thaker et al., (2018) and Mohd Thas Thaker (2018) reported that through of information system (IS) or information technology (IT) utilization it influences behavioural intention donors' to endow the funds. It has proven to be successful in many countries, such as Australia, the USA, Canada, the Netherlands, the UK, France, India, and Brazil. However, remains unproven in the extent of utilization of IS or IT will influences behavioural intention donors' to endow the funds in Malaysia.

Microfinance
A total of 2 studies reported 2 issues of microfinance. Abdul Rahman et al., (2016), stated that Bangladesh being a Muslim-majority country has shown signs of due to its non-compliance with Islamic financial principles. Accordingly, some institutions started to apply Islamic microfinance. Nevertheless, the reality on the ground, such as high administration, has made them either emulate conventional microfinance or only marginally apply the Islamic contracts. Thus, their study investigates the micro-entrepreneurs' intention to adopt Islamic microfinance that empowers poor micro-entrepreneurs and harnesses the potential of waqf for socio-economic development and reducing the cost of capital. Followed by Haneef et al., (2015) develop an integrated waqf-based Islamic microfinance (IsMF) for poverty reduction in Bangladesh.

Accountability
Ayedh et al., (2018), presents the accountability issue among waqf manager in managing waqf in Yemen. The accountability issue exists among waqf manager due to Yemen is one of the highest corrupted countries in the world is a threat to the waqf management. This issue has also been proven by Transparency International Corruption Perceptions Index (2015).

Governance
Review by Hasan et al., (2017), revealed governance problems that are affecting the ability of the public sector to efficiently managing waqf. In such a situation it may affect the governance of waqf institution in Bangladesh in building a long term commitment and affects o the waqf donors' trust.

Efficiency
Pyeman et al., (2016) presenting the efficiency issue of the administration and management of the waqf institutions in Malaysia. The waqf institution facing inefficiencies in management and administration has created a huge gap in the collection and distribution of waqf funds. Thus, the diversity of waqf property can not be fully utilized due to this problem.

Poverty Alleviation
Senadjki and Sulaiman (2015), stated that Islam to be a viable system that could respond to poverty through its socioeconomic, cultural and political system and principles. However, attempts to making the role of Islamic ideals and institutions to eliminate poverty as the solution remain marginal. In fact, the

role of Islamic values and principles is well documented theoretically but not empirically including in waqf study.

Management
Review by Shariff et al., (2016), found that the human resource management issue in Malaysia such as lack of knowledge and management skills of waqf among staff and lack of training and development. Due to this issue, waqf institutions are also having problems to properly supervise the waqf management and which adversely affects the performance of waqf institutions.

Education
According to Siti Khadijah et al., (2017), philanthropic commitment in the form of waqf is important particularly among younger working adults in ensuring a sustainable flow of funds for charitable purposes such as higher education funds. Anyhow, the factors are that influence them to contribute their assets or income into waqf for higher education funds are still unknown and need to be studied to find out the findings.

Based on various issues studied by previous researchers shows that among the issues that are widely studied is related to the issue of cash waqf. It can be concluded that among the most popular issues studied are the lack of trust among waqf donors' (waqif) to endow cash waqf, lack of giving behaviour among cash waqf donors', lack of awareness with regard to cash waqf, the behavioural intention on cash waqf, and dissatisfaction among waqf donors'. In addition, the issue of technology has also received attention from previous researchers. Most of them reveal related technology issues with online waqf contribution of society is still at the infancy stage, the usage of mobile learning is still in the initial stage of implementation, and lack of utilization of IS or IT to endow the waqf funds. Meanwhile, the issue of accountability, governance, efficiency, poverty alleviation, management, and education are less studied by previous researchers in waqf quantitative studies.

TABLE 3: The Issues of Waqf Studies

Authors	Cash Waqf					Technology			Micro-finance		Account-ability	Gover-nance	Efficiency	Poverty Alleviation	Manag-ement	Educa-tion
	T	GB	A	BI	WS	OWC	ML	CBI	MI	PR	AWM	WT	AM	IV	HR	WC
Abdul Rahman et al., (2016)									√							
Abdul Shukor et al., (2019)	√															
Abdul Shukor et al., (2017)				√												
Abdul Shukor et al., (2016)		√														
Adeyemi et al., (2016)			√													
Amin et al., (2014)						√										
Ayedh et al., (2018)											√					
Haneef et al., (2015)										√						
Hasan et al., (2019)			√													
Hasan et al., (2017)												√				
Mhd Alkasirah and Mohd Nor (2018)							√									
Mohamed Thas Thaker et al., (2018)								√								
Mohd Thas Thaker (2018)								√								
Pitchay et al., (2015)				√												
Pyeman et al., (2016)													√			
Rizal and Amin (2017)				√												
Senadjki and Sulaiman (2015)														√		
Shaikh et al., (2018)																
Shariff et al., (2016)	√														√	
Shukor et al., (2017)					√											
Siti Khadijah et al., (2017)																√
Thaker et al., (2016)				√												
Zabri and Mohammed (2018)				√												

Cash waqf	Technology	Microfinance	Accountability	Governance	Efficiency	Poverty Alleviation	Management	Education
T= Trust GB= Giving behaviour A= Awareness BI= Behavioural intention WS= Waqf donors' satisfaction	OWC= Online waqf contribution ML= Mobile learning CBI= Crowd funders' behavioural intention	MI= Micro-entrepreneurs' intention PR= Poverty reduction	AWM= Accountability of waqf manager	WT= Waqf donors' trust	AM= Administration and management	IV= Islamic values	HR= Human resources	WC= Waqf commitment

RQ2: What are the variables used in the quantitative approach of waqf studies?

In accordance with the variables used in the quantitative approach in waqf studies, this study presented the causal relationship involving the dependent variables (DV) and independent variables (IV) for each waqf study as shown in Table 4 and 5. On another note, 3 out of 23 waqf studies adopted mediating variables (MV) as can be seen from Table 6. A comprehensive clarification of each variable such as follows:

TABLE 4: The Dependent Variables (DV) of Waqf Studies

Authors	Dependent Variable (DV)
Abdul Rahman et al., (2016)	Behavioral intention to practice Islamic micro-investment
Abdul Shukor et al., (2019)	Behavioral intention to endow cash waqf
Abdul Shukor et al., (2017)	Muslim intention to participate in cash waqf
Abdul Shukor et al., (2016)	Charitable giving of cash waqf
Adeyemi et al., (2016)	Waqf awareness
Amin et al., (2014)	Acceptance online waqf
Ayedh et al., (2018)	Accountability of Yemeni Mutawallis (waqf managers)
Haneef et al., (2015)	Poverty alleviation
Hasan et al., (2019)	Waqf generosity of GenY and GenZ
Hasan et al., (2017)	Commitment
Mhd Alkasirah and Mohd Nor (2018)	Adult learning
Mohamed Thas Thaker et al., (2018)	Behavioral intention to engage in the crowd funding waqf model (CWM)
Mohd Thas Thaker (2018)	Behavioral intention to engage in the CWM
Pitchay et al., (2015)	Behavioral intention of Muslim employees to donate
Pyeman et al., (2016)	Efficiency
Rizal and Amin (2017)	Charitable giving of cash waqf
Senadjki and Sulaiman (2015)	Poverty alleviation
Shaikh et al., (2018)	Charitable giving of cash waqf
Shariff et al., (2016)	Effectiveness in human resource
Shukor et al., (2017)	Waqif's (waqf donors') satisfaction
Siti Khadijah et al., (2017)	Waqf commitment
Thaker et al., (2016)	Behavioral intention
Zabri and Mohammed (2018)	Homeowner's intention

TABLE 5: The Independent Variables (IV) of Waqf Studies

Authors	Belief					Antecedent																				Learning	
	BB	NB	SN	PBC	Att	R	T	K	PC	SI	Alt	PS	PB	PI	IE	Cnv	Cnd	PE	PU	PEU	AI	II	SR	CR	GR	I	Ab
Abdul Rahman et al., (2016)	√	√	√		√																						
Abdul Shukor et al., (2019)																											
Abdul Shukor et al., (2017)						√	√	√								√						√					
Abdul Shukor et al., (2016)							√	√								√											
Adeyemi et al., (2016)																											
Amin et al., (2014)						√												√	√	√							
Ayedh et al., (2018)																											
Haneef et al., (2015)																											
Hasan et al., (2019)						√	√		√	√	√	√	√														
Hasan et al., (2017)																											
Mhd Alkasirah and Mohd Nor (2018)								√																		√	√
Mohamed Thas Thaker et al., (2018)																		√	√								
Mohd Thas Thaker (2018)																		√	√								
Pitchay et al., (2015)			√	√																							
Pyeman et al., (2016)																											
Rizal and Amin (2017)						√								√	√												
Senadjki and Sulaiman (2015)																							√	√	√		
Shaikh et al., (2018)						√													√	√							
Shariff et al., (2016)																											
Shukor et al., (2017)						√	√																				
Siti Khadijah et al., (2017)						√	√		√	√	√	√	√														
Thaker et al., (2016)			√		√																						
Zabri and Mohammed (2018)			√	√	√																						

Belief	Antecedent			Learning
BB= Behavioral belief	R= Religiosity	PS= Personal satisfaction	Cnd= Conduciveness	SR= Self-responsibility's	I= Interest
NB= Normative belief	T=Trust	PB= Psychological benefits	PE= Perceived effectiveness	CR= Communities' responsibility	Ab= Ability
SN= Subjective norm	K= Knowledge	PI = Perceived ihsan	PU= Perceived usefulness	GR= Government responsibility	
PBC= Perceived behavioral control	PC= Personal characteristics	IE= Islamic egalitarian	PEU= Perceived ease of use		
Att= Attitude	SI= Self-image	TF= The fear of Allah SWT	AI= Amount of information		
	Alt= Altruism	Cnv= Convenience	II= Informative influence		

…continuation

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Authors	Institutional											IWIM					Mutawalli accountability						Performance			HRM		
	IWI	RWI	PWI	SCWI	UWI	BB	BA	BI	Co	BO	Ac	WR	IM	T	PF	HRD	OV	TF	TI	TRM	SA	WI	EC	TC	TFPC	Com	TD	PA
Abdul Rahman et al., (2016)																												
Abdul Shukor et al., (2019)	√	√																										
Abdul Shukor et al., (2017)																												
Abdul Shukor et al., (2016)																												
Adeyemi et al., (2016)			√	√	√																							
Amin et al., (2014)																												
Ayedh et al., (2018)																	√	√	√	√	√	√						
Haneef et al., (2015)												√	√	√	√	√												
Hasan et al., (2019)																												
Hasan et al., (2017)						√	√	√	√	√	√																	
Mhd Alkasirah and Mohd Nor (2018)																												
Mohamed Thas Thaker et al., (2018)																												
Mohd Thas Thaker (2018)																												
Pitchay et al., (2015)																												
Pyeman et al., (2016)																							√	√	√			
Rizal and Amin (2017)																												
Senadjki and Sulaiman (2015)																												
Shaikh et al., (2018)																												
Shariff et al., (2016)																										√	√	√
Shukor et al., (2017)																												
Siti Khadijah et al., (2017)																												
Thaker et al., (2016)																												
Zabri and Mohammed (2018)																												

Institutional			IWIM
IWI= Integrity of waqf institution		BA= Board ability	WR= Waqf resources
RWI= Reputation of waqf institution		BI= Board integrity	IM= Islamic microfinance
PWI= Promotion of waqf institution		Co= Communication	T= Takaful
SCWI= Social culture of waqf institution		BO= Board opportunism	PF= Project financing
UWI= Understanding of the role waqf institution		Ac= Accountability	HRD= Human resource development
BB= Board benevolence			

Mutawalli accountability		Performance	HRM
OV= Organizational values/rules	TRM= The responsibility of mutawalli due to the nature of assets	EC= Efficiency change	Com= Compensation
TF= The fear of Allah SWT	SA= Sincerity and *amanah*	TC= Technical change	TD= Training and development
TI= Transparency and integrity	WI= Work definition as part of 'ibadah	TFPC= Total factor productivity change	PA= Performance appraisal

TABLE 6: The Mediating Variables (MV) of Waqf Studies

Authors	Mediating Variable (MV)
Abdul Rahman et al., (2016)	-
Abdul Shukor et al., (2019)	Trust on waqf institution
Abdul Shukor et al., (2017)	Muslim attitude towards participation in cash waqf
Abdul Shukor et al., (2016)	-
Adeyemi et al., (2016)	-
Amin et al., (2014)	-
Ayedh et al., (2018)	-
Haneef et al., (2015)	-
Hasan et al., (2019)	-
Hasan et al., (2017)	Trust on waqf institution
Mhd Alkasirah and Mohd Nor (2018)	-
Mohamed Thas Thaker et al., (2018)	-
Mohd Thas Thaker (2018)	-
Pitchay et al., (2015)	-
Pyeman et al., (2016)	-
Rizal and Amin (2017)	-
Senadjki and Sulaiman (2015)	-
Shaikh et al., (2018)	-
Shariff et al., (2016)	-
Shukor et al., (2017)	-
Siti Khadijah et al., (2017)	-
Thaker et al., (2016)	-
Zabri and Mohammed (2018)	-

Belief

As can be seen from the Table 5, belief is divided into 5 IV such as behavioral belief (BB), normative belief (NB), subjective norm (SN), perceived behavioral control (PBC), and attitude (Att). A total of 4 out of 23 studies focused on construct as stated above (see Abdul Rahman et al., 2016; Pitchay et al., 2015; Thaker et al., 2016; Zabri & Mohammed, 2018).

In the context of Abdul Rahman et al., (2016), they examined the factors (comprising of behavioral belief, normative belief, subjective norm, and attitude) that influenced behavioral intention to adopt Islamic micro-investment (see Table 4 and 5). However, only 2 constructs (behavioral belief and normative belief) are found to have a positive impact on behavioral intentions to adopt Islamic micro-investment in Bangladesh.

Followed by Pitchay et al., (2015), they examined the factors (comprising of subjective norms and attitude) that influence the behavioral intentions of Muslim employees to donate through deductions from employment income (see Table 4 and 5). Interestingly, they found that both constructs are to have a positive impact on the intentions of Muslim employees to contribute cash waqf through deduction from employment income.

Likewise, Thaker et al., (2016) examine the factors (comprising of subjective norms and attitude) that influenced behavioral intention of micro-enterprises to use the Integrated Cash Waqf Micro Enterprise Investment (ICWME-I) model as a source of financing in Malaysia (see Table 4 and 5). This study has revealed that both constructs are found to have a positive impact on the intention of micro-entrepreneurs to use the ICWME-I model in the context of Malaysia.

Zabri and Mohammed (2018) investigated the factors (subjective norms, perceived behavioral control and attitude) that influenced the Malaysian homeowners' intention to participate in the Cash Waqf-Financial Cooperative-Musharakah Mutanaqisah (CWFCMM) home financing model (see Table 4 and 5). Their study found that all of the constructs have a positive impact on the Malaysian homeowners' intention to participate in CWFCMM.

Antecedent

As shown in Table 5, antecedent is divided into 21 IV such as religiosity (R), trust (T), knowledge (K), personal characteristics (PC), self-image (SI), altruism (Alt), and others. A total of 11 out of 23 studies focused on construct as stated above (see Abdul Shukor et al., 2017; Abdul Shukor et al., 2016; Amin et al., 2014; Hasan et al., 2019; Mohamed Thas Thaker et al., 2018; Mohamed Thas Thaker et al., 2018; Rizal & Amin 2017; Shaikh et al., 2018; Senadjki & Sulaiman, 2015; Shukor et al., 2017; Siti Khadijah et al., 2017).

In the context of Abdul Shukor et al., (2017), they investigate antecedents (comprising of religiosity, trust, knowledge, convenience, and informative influence) and consequences (intention) of Muslim attitude towards participation cash waqf in Malaysia as presented in Table 4, 5 and 6. The results indicate that individual religiosity, trust in waqf institutions, and convenience to endow are antecedents of Muslim attitude towards participation in cash waqf, which consequently leads to an individual of Muslim intention to participate in the practice.

Next, Abdul Shukor et al., (2016) examine the determinants (comprising of trust, knowledge, and convenience) of charitable giving in the context of cash waqf donation by individuals (see Table 4 and 5). The results show that there was a significant positive correlation between convenience and knowledge that influenced them to endow cash waqf from the perspective of the individual's endower.

Followed by Amin et al., (2014), they explore the factors (comprising of religiosity, perceived usefulness, perceived ease of use, and amount of information) that influence the acceptance of online waqf (see Table 4 and 5). The results indicate that religiosity, perceived usefulness, perceived ease of use, and amount of information are instrumental in influencing one's decision to perform online waqf.

Hasan et al., (2019), examined the factors (comprising of religiosity, trust, personal characteristics, self-image, altruism, personal satisfaction, and psychological benefits) that influenced the generosity index in waqf practice among Generations Y and Z (see Table 4 and 5). The results show that there was a significant difference between both generations. It is found out that individual religiosity, personal satisfaction, altruism, and psychological benefits have a positive correlation on the generosity index in waqf practice among Generations Y. Whereas a positive correlation was found between personal satisfaction, altruism, and psychological benefits on the generosity index in waqf practice among Generations Z.

Mohamed Thas Thaker et al., (2018) examine the factors (comprising of perceived usefulness and perceived ease of use) that influenced the behavioral intention of donors to engage in the crowd funding–waqf model (CWM) in selected states such as Selangor, Johor, Penang, and Pahang (see Table 4 and 5). Likewise study by Mohd Thas Thaker (2018), who studied similar factors in determining the intention of donors or crowd funders to crowd CWM in Klang Valley (Selangor and Kuala Lumpur). Both studies have revealed that both constructs (perceived usefulness and perceived easy to use) are found to have a positive impact on the intention of donors in assisting waqf institutions to develop waqf land through CWM.

Rizal and Amin (2017) investigate the Muslim's attitudinal-behavioral (comprising of religiosity, perceived ihsan, and Islamic egalitarian) within the context of charitable giving of cash waqf using Islamic banking (see Table 4 and 5). The result of model testing shows a significant relationship between religiosity, perceived ihsan, and Islamic egalitarian on cash waqf contribution using Islamic banking among Muslim's.

Shaikh et al., (2018) explore Muslims attitudinal-behavioral (comprising of religiosity, conduciveness, and perceived effectiveness) within the context of charitable giving of cash waqf in Karachi (see Table 4 and 5). The results are set out a significant positive correlation between perceived religiosity to be the strongest motivation for charitable giving among Muslim in Karachi.

Senadjki and Sulaiman (2015) investigate the effect of self-responsibility's, communities' responsibility, and government obligation on the poor's well-being to enhance their livelihood and, therefore, alleviate their poverty (see Table 4 and 5). The results indicated that poverty can be fought with the commitment of self-responsibility's, communities' responsibility, and government obligation on the poor people's well-being.

Shukor et al., (2017) determine the roles of religiosity and trust on waqf institution in determining waqif's satisfaction in endowing cash waqf that leads to waqif's intention to endow cash waqf (see Table 4 and 5). Findings showed that religiosity and trust on waqf institution are important factors in determining waqif's satisfaction that leads to waqif's intention to endow cash waqf.

Siti Khadijah et al., (2017), examine waqf commitment traits (comprising of religiosity, trust, personal characteristics, self-image, altruism, personal satisfaction, and psychological benefits) among waqf contributors for higher education funding (see Table 4 and 5). The findings reveal that individual religiosity, altruism, and personal satisfaction are significant attributes in explaining waqf commitment among waqf contributors for higher education funding.

Learning

As shown in Table 5, learning is divided into 2 IV such as interest (I) and ability (Ab). In the context of Mhd Alkasirah and Mohd Nor (2018) study, they explore the factors (comprising of interest and ability) that influence the potential use of mobile learning via SMS for enhancing Islamic knowledge that focusing on the topic of waqf among adult learners (see Table 4 and 5). On another note, this study used factor knowledge that influences the potential use of mobile learning via SMS. The results showed that

the usage of mobile learning via SMS is the potential for enhancing the level of adult learners' achievement in terms of waqf knowledge and increased their interest and ability to remember the contents. Therefore, the usage of mobile learning via SMS can be utilized and has potential as one of the tools in delivering of Islamic knowledge to the public.

Institutional

As can be seen from Table 5, the institutional divided into 11 IV such as the integrity of waqf institution (IWI), the reputation of waqf institution (RWI), promotion of waqf institution (PWI), and others. A total of 3 studies such as Abdul Shukor et al., (2019), Adeyemi et al., (2016), and Hasan et al., (2017) have used these IV.

In the context of Abdul Shukor et al., (2019) study, they explore the relationship between integrity, reputation, endowers' trust, and intention to endow cash waqf in Malaysia (see Table 4, 5 and 6). The finding shows that the integrity and reputation of waqf institutions have a direct impact on endowers' trust in waqf institutions, which consequently leads to endowers' intention to endow cash waqf.

Next, Adeyemi et al., (2016) examine the determinants (comprising of promotion of waqf institutions, social culture of waqf institutions, and understanding the role of waqf institution) of waqf awareness among society in Malaysia (see Table 4 and 5). The results indicated that the promotion of waqf and understanding the role of waqf institution has a direct impact on the level of awareness and application about waqf among society.

Hasan et al., (2017) determine the ability of waqf institution (comprising of board benevolence, board ability, board integrity, board opportunism, communication, and accountability) toward influencing waqifs' trust and commitment (see Table 4, 5 and 6). The finding indicates that all of the constructs as set out above (except board integrity) has a statistically significant impact on waqif's trust, which consequently enhances their long-term commitment towards waqf institutions.

IWIM (*Integration Waqf-Islamic Microfinance*)

From the Table 5 above, we can see that IWIM divided into 5 IV such as waqf resources (WR), Islamic microfinance (IM), takaful (T), project financing (PF) and human resource development (HRD). Haneef et al., (2015) determine the roles of waqf resources, Islamic microfinance, takaful, project financing, and human resource development toward poverty alleviation in Bangladesh (see Table 4 and 5). The results indicate that a positive correlation was found between all of these constructs, which consequently possibly reduce poverty alleviation among society in Bangladesh.

Mutawalli accountability

As can be seen from the Table 5, the mutawalli accountability divided into 6 IV such as organizational values and rules (OV), the fear of Allah SWT (TF), transparency and integrity of mutawalli (TI), the responsibility of mutawalli due to the nature of assets (TRM), sincerity and amanah (SA), and work definition as part of 'ibadah (WI). Ayedh et al., (2018) investigate the factors of waqf accountability practices among mutawalli (waqf manager) in the Republic of Yemen in terms of the managing waqf (see Table 4 and 5). The results revealed that mutawalli accountability is mostly driven by the fear of Allah SWT, and transparency and integrity among mutawalli in managing their waqf assets.

Performance

As Table 5 shows, the performance divided into 3 IV such as technical changes (TE), efficiency changes (EC), and total factor productivity (TFP). Pyeman et al., (2016) measure the efficiency scores among waqf institutions in all states in Malaysia that also known as State Islamic Religion Councils (SIRCs) (see Table 4 and 5). The result shows that most improving SIRCs based on its technical changes, efficiency changes, and total factor productivity changes for 2007-2012 values are the SIRC of the states of Penang and Selangor. Therefore, this state became the benchmark for the rest of the states in Malaysia.

HRM (*Human Resources Management*)

From the Table 5 above we can see that HRM divided into 3 IV such compensation (Com), training and development (TD), and performance appraisal (PA). Shariff et al., (2016) examine the effectiveness of human resources in Selangor Waqf Corporation by highlighting several factors including compensation, training and development, and performance appraisal (see Table 4 and 5). The results showed that quality is closely linked to the role of compensation, training and development, and performance appraisal in producing the effectiveness in human resources.

RQ3: What is the relevant theory/model in the quantitative approach of waqf studies?

This study found that there were 8 theories/models used in previous quantitative waqf studies. These theories/models are used to describe the variables in each of these studies. These include Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), Rasch Measurement Model (RMM), Commitment-Trust Theory (CTT), Adult Learning Theory-Andragogy (ALT(A)), Malmquist Total Factor Productivity (TFP) and Theory of Altruism (TA). However, there are also previous studies that do not state any theory/ model and such studies are labeled as not stated (NS).

Overall, there are 4 studies using TRA, 3 studies dealing with TAM, and 2 studies applying TPB and TA respectively. In addition, this study also found that other theories/ models such as RMM, CTT, ALT(A), and TFP were adopted by only 1 study. On another note, 8 of the 23 waqf studies did not specify any theories/models used in their study. The theory/ model distribution across articles is illustrated in Table 7.

Table 7: The Theory/ Model of Waqf Studies

Authors	Theory/ Model								
	TRA	TPB	TAM	RMM	CTT	ALT(A)	TFP	TA	NS
Abdul Rahman et al., (2016)	√								
Abdul Shukor et al., (2019)		√							
Abdul Shukor et al., (2017)	√								
Abdul Shukor et al., (2016)									√
Adeyemi et al., (2016)									√
Amin et al., (2014)			√						
Ayedh et al., (2018)									√
Haneef et al., (2015)									√
Hasan et al., (2019)				√					
Hasan et al., (2017)					√				
Mhd Alkasirah & Mohd Nor (2018)						√			
Mohamed Thas Thaker et al., (2018)			√						
Mohd Thas Thaker (2018)			√						
Pitchay et al., (2015)	√								
Pyeman et al., (2016)							√		
Rizal & Amin (2017)								√	
Senadjki & Sulaiman (2015)									√
Shaikh et al., (2018)								√	
Shariff et al., (2016)									√
Shukor et al., (2017)									√
Siti Khadijah et al., (2017)									√
Thaker et al., (2016)	√								
Zabri & Mohammed (2018)		√							

TRA	= Theory of Reasoned Action		ALT(A)	= Adult Learning Theory (Andragogy)
TPB	= Theory of Planned Behavior		TFP	= Malmquist Total Factor Productivity
TAM	= Technology Acceptance Model		TA	= Theory of Altruism
RMM	= Rasch Measurement Model		NS	= Not Stated
CTT	= Commitment-Trust Theory			

TRA

As stated in the Table 7 above, the TRA has been employed by Abdul Rahman et al., (2016), Abdul Shukor et al., (2017), Pitchay et al., (2015), and Thaker et al., (2016) in their studies. The TRA is proposed by Fishbein and Ajzen (1975) to study human behaviour with regard to the underlying factors that influence human behaviour to engage or not to engage in a particular cause of action (Ramayah et al., 2003).

In the context studies of Abdul Rahman et al., (2016), Abdul Shukor et al., (2017), Pitchay et al., (2015), and Thaker et al., (2016), the utilization of theory proposed by Fishbein and Ajzen (1975) is to examine the factors influencing behavioral intention to adopt Islamic micro-investment that harnesses the potential of waqf for socio-economic development, to investigate antecedents and consequences of Muslim attitude towards participation cash waqf, and to examine the factors influencing the behavioral

intention of micro-enterprises to use the ICWME-I model as a source of financing in Malaysia. Accordingly, the TRA is found to be well supported in empirical evidence of these studies in terms of predicting variability in people's behaviour across many contexts, and populations.

TPB
From the result as set out in Table 7, Abdul Shukor et al., (2019), and Zabri and Mohammed (2018) used the TPB in their study. The TPB was developed from the TRA (Ajzen, 1991; Fishbein and Ajzen, 1975) to understanding and predicting behavioural intentions of human (Ajzen, 1991).

In the context of Abdul Shukor et al., (2019), and Zabri and Mohammed, (2018) study, the utilization of TPB developed by Ajzen (1991) is to determine an individual's intention to endow cash waqf in waqf institutions and the determination of Malaysian homeowners' intention to participate in the CWFCMM home financing model. Accordingly, the TPB has been used successfully to predict and explain an individual's intention to perform behaviours of different kinds that can be predicted with high accuracy.

TAM
The TAM was used as a baseline theory in the studies that have been done by Amin et al., (2014), Mohamed Thas Thaker et al., (2018) and Mohd Thas Thaker (2018) as stated in Table 7. TAM was developed by Davis (1989) to identifying technology acceptance behaviours in a variety of information systems (IS) or information technology (IT) contexts.

In the context of Amin et al., (2014), Mohamed Thas Thaker et al., (2018), and Mohd Thas Thaker (2018) study, the utilization of TAM developed by Davis (1989) to explore the factors influencing acceptance of online waqf, and examine the factors influencing the behavioral intention of donors to engage in the CWM. Accordingly, TAM is valid for predicts the intention to use and acceptance of IS or IT by individuals donors.

RRM
The RRM is used by Hasan et al., (2019) in their study (see Table 7). RMM is proposed by George Rasch (1960) to identify the generosity index among the generation of their own behaviour traits and intentions in giving a donation or endowment.

In the context of Hasan et al., (2019) study, the utilization of RMM proposed by George Rasch (1960) to determine the generosity index in giving waqf among Generations Y and Z. Accordingly, RMM revealed that all two generations have different results for their generosity index. This can be relating where each generation having their own behaviour traits in attitudes and intentions. Accordingly, the RMM model provides item statistics that are useful in identifying the Generations Y and Z generosity index on waqf or named as Waqf Generosity Index (WGI), where each generation has their own behaviour traits in attitudes and intentions.

CTT
As apparent in Table 7, Hasan et al., (2017) used the CTT model in their study. The CTT is proposed by Morgan and Hunt (1994) to analyse trust and commitment with the specific theme of accounting will serve as a significant contribution to study. In the context of Hasan et al., (2017) study, the utilization of theory and modification of the initial model proposed by Morgan and Hunt (1994) to analyse trust in long-term commitment between waqif's toward waqf institutions. Accordingly, the CTT model provides valuable empirical findings that validate the increase in waqif's trust enhance their long-term commitment toward the waqf institutions.

ALT(A)
As shown in Table 7, Mhd Alkasirah and Mohd Nor (2018) used ALT(A) as a base theory in their study. The ALT(A) is a theory specifically for adult learning that was developed by Malcom Knowles (1973). The theory is able to adequately explain that the ALT(A) as an emerging technology that facilitates the development and implementation of learning activities for adults. In the context of Mhd Alkasirah and Mohd Nor (2018) study, the utilization of theory determines the potential of mobile learning via a short messaging system (SMS) in improving waqf knowledge among adult learners. Accordingly, it indicates that their study provides valuable empirical findings that validate the usage of ALT(A) in the context of SMS that affects adult learners' knowledge about waqf whereby the finding shows the adult learners' score increased after the implementation learning activities has been done.

TFP

As presented in Table 7, Pyeman et al., (2016) used the TFP in their study. A variety of indices of TFP have been developed by Christensen et al. (1973), Kendrick (1973), Diewert (1976), and Caves et al. (1980) to determine how efficiently and intensely the inputs are utilized in the production. In the context of Pyeman et al., (2016) study, the utilization of TFP is to measure the efficiency scores of Waqf departments in all states that run waqf funds in their SIRCs.

Given the usage of efficiency scores that have been studied, the TFP is beneficial in evaluating the productivity of waqf institution in SIRCs, whether its productivity deteriorates or improves. The scores will determine the top waqf institution in Malaysia, thereby becoming the benchmark for other waqf institutions. TFP helps considerably in modernizing waqf institutions, and finally promotes the betterment of waqf collection and distribution activities.

TA

The TA has been used by Rizal and Amin (2017) and Shaikh et al., (2018) in their studies (see Table 7). Basically, the TA is developed by August Comte (1851) to explain how altruistic behaviour is fostered and how individuals decide to offer their help. In the context of Rizal and Amin (2017) and Shaikh et al., (2018) study, the utilization of theory proposed by August Comte (1851) is to study Muslims attitudinal-behavioral dispositions within the context of charitable giving of cash waqf. Accordingly, their study provides empirical findings that validate the usage of TA in terms of behavioral disposition among Muslims to doing things simply out of a desire in waqf giving.

CONCLUSION

The review has identified 23 out of 428 waqf studies that used quantitative approaches were published by Scopus and Web of Science throughout 1914 until 2019 and 1971 until 2019 respectively. From the review, this study offers a comprehensive view and understanding of the state of the art in the quantitative approaches of waqf studies has enriched with the various issues, variables, and theories/ models.

Furthermore, this study becomes more interesting because we will know where the research position is currently developing especially in the context of waqf quantitative studies. Besides that, this study provides some ideas particularly to the researchers for their future research, especially on the quantitative research approaches. Therefore, this study is expected to be a platform to encourage more waqf studies in quantitative research approaches. The quantitative research approach provides more reliable, valid, and generalizable results in its clear prediction of cause and effect. Therefore, it is felt that quantitative research approaches complement the qualitative research approaches and reinforce the arguments presented in qualitative studies.

In addition to this, the results of the study also provide input to the interested parties especially the policymaker namely waqf institutions as well as other policymakers such as Jabatan Wakaf, Zakat dan Haji (JAWHAR), and Yayasan Waqf Malaysia (YWM) in terms of the progress waqf studies. The interested parties also can generate short and long-term adaptation strategies that should be the focus for the next waqf studies and encourage them to make necessary adjustments to their normal operating practices.

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Analysis of Proverty Determination in Aceh

Nurlina Nurlina
Safuridar Saiful
Ziaul Maula
Fakultas Ekonomi,
Universitas Samudra, Indonesia

PRELIMINARY

The Central Statistics Agency for Indonesia [18] stated that one of the poorest areas in Indonesia since 2002 has been the Aceh region. In 2002 the percentage of poor people in Aceh was 29.83% and the highest compared to other areas on the island of Sumatra. Poverty in Aceh continues to increase because it is caused by problems such as the conflict and Aceh was also hit by the tsunami disaster in 2004. From year to year poverty in Aceh shows a decline but is not significant. The percentage of the poor population in 2020 is 15.43% with the poverty line in Aceh is 524,208 per capita, the poverty depth index (P1) is 2.847, the Poverty Severity Index is 0.831 and the Gini ratio is 0.319.

The occurrence of poverty in Aceh is caused by economic and non-economic factors. Non-economic factors including religion and culture have a significant effect on poverty in Pidie Jaya Regency, [1]. While the economic factor of poverty can be influenced by economic growth in a region, in 2020 the Gross Regional Domestic Product (GDP) of Aceh's non-oil and gas according to current prices is Rp. 40.70 trillion or US$2.77 billion, an increase compared to the previous year. 2019 amounting to Rp.18617562.19 million. The occurrence of economic growth is also inseparable from the role of the Aceh government in issuing a budget for development. One of these budgets is the autonomy fund. since the last five years Aceh has received special autonomy funds ranging from Rp. 71.1 trillion to Rp. 8.4 trillion [2]. Aceh focuses on spending special autonomy funds for infrastructure development and maintenance, community economic empowerment, poverty alleviation, education, social and health funding.

The increase in revenue from Aceh's Special Autonomy funds every year, it is felt that Aceh Province is still unable to catch up with development and poverty alleviation compared to other regions in Indonesia. This fact can be shown based on the results of a study by the Institute for Development of Acehnese Society (IDeAS) published by Tempo (2016) which revealed that the increase in revenue from Special Autonomy funds for Aceh Province has not had an effect on improving the welfare of the people in the area, where in 2016 (as of September) [3].

The increase in special autonomy funds is also intended for the population. The existence of population growth will result in an increase in the dependency ratio. Aceh's dependency ratio in 2020 is 53.6 and this value is higher than the national level. The dependency ratio can be used as an indicator that can roughly show the economic condition of a country or region, whether it is a developed country or a developing country. Dependency ratio is one of the important demographic indicators. The higher the percentage dependency ratio indicates the higher the burden that must be borne by the productive population to finance the lives of the unproductive and unproductive population.

An increase in population also results in an increase in the amount of infrastructure. The government continues to make efforts in infrastructure development for the community. To support community activities, it is necessary to develop good infrastructure so that the community has access to carry out their activities. The Acehnese people still mostly make a living as farmers. This sector is still the highest contributor to the economy in Aceh. However, if you look at the actual situation, the average farming community in Aceh is still classified as poor farmers. Meanwhile, the farmer exchange rate index (NTP) in Aceh in 2020 was 99.12 or an increase of 0.61%. Farmer's exchange rate is the ratio between the price index received by farmers and the price index paid by farmers expressed as a percentage. Farmer's exchange rate is one of the indicators in determining the level of farmer's welfare. NTP < 100, it means that farmers have a deficit. The increase in production prices was relatively smaller than the increase in the prices of consumer goods. Farmers' incomes fell, less than their expenditures.[17]

According to Agussalim [2] government spending in the education and health sectors, either directly or indirectly, is a pro-poor policy that has a negative impact on poverty through its impact on growth and equity. In addition, the expenditure policy has a positive influence on growth through its impact on the formation of human capital. These policies are considered as policies that have a double impact (win win policies). With an increase in education, it is hoped that the poverty rate in Aceh will be reduced. However, it is very unfortunate that the results of the Scholastic Potential Test (TPS) in the 2020 UTBK SBMPTN which show Aceh's position at the bottom nationally, is an indication that the quality

and competitiveness of Aceh's education is still weak.With the above problems, the authors are interested in conducting a study entitled Analisys Determination of Poverty in Aceh.

The objectives of this research are as follows:

1. To analyze the direct effect of gross regional domestic product (GRDP), special autonomy funds, dependency ratio, infrastructure, farmer's exchange rate (NTP) on the level of education in Aceh.
2. To indirectly analyze the gross regional domestic product (GRDP), special autonomy funds, dependency ratio, infrastructure, farmer's exchange rate (NTP) against poverty in Aceh through education level

Urgency or Importance of Research

This research is important to do to find out how much influence GRDP, special autonomy funds, dependency ratio, infrastructure and farmer's exchange rate can increase the level of education in Aceh Province. As well as how the direct and indirect effects of GRDP, special autonomy funds, dependency ratio, inflation, farmer's exchange rate and education level on poverty in Aceh Province, so that there are solutions and solutions that will be carried out to alleviate poverty in Aceh, which is currently a major problem. The poorest province in Sumatra.

LITERATURE REVIEW

Poverty is an individual's inability to meet the minimum basic needs for a decent life. Another definition of poverty is a condition that is below the standard value line for minimum needs, both for food and non-food, which is called the poverty line or the poverty threshold. The poverty line is the amount of rupiah needed by each individual to be able to pay for food needs equivalent to 2100 kilo calories per person per day and non-food needs consisting of housing, clothing, health, education, transportation and various other goods and services [17].

Poverty indicators according to the Central Statistics Agency, other variables are as follows:

1. Inability to meet basic consumption needs (clothing, food and housing).
2. Lack of access to other basic necessities of life (health, education, sanitation, clean water and transportation).
3. There is no guarantee for the future (because there is no investment in education and family).
4. Vulnerability to individual and mass shocks.
5. The low quality of human resources and limited natural resources.
6. Lack of appreciation in community ariab activities.
7. Lack of access to sustainable employment and livelihoods.
8. Inability to do business due to physical or mental disability.
9. Inability and independence of ariab (abandoned children, women victims of domestic violence, poor widows, marginalized and isolated groups).

According to Wiguna [15] education is a pioneer in future development. Education is closely related to character building, education is one of the investments in human resources in order to get a better life. Individuals with higher levels of education usually have greater access to higher paying jobs than individuals with lower levels of education. The level of education is the stage of continuous education, which is determined based on the development of students, the level of complexity of teaching materials and the way in which teaching materials are presented. The level of school education consists of basic education, secondary education, and higher education [16].

Gross Regional Domestic Product (GRDP) is one of the economic variables that can describe overall economic activity in one region. With the increase in population every year, economic activity is also increasing, resulting in an increase in the value of GRDP at Current Prices (ADHB) continuously from year to year [15].

Economic growth is defined as the increase of an economy in producing goods and services. In other words, the direction of economic growth is more to changes that are quantitative (quantitative change) and are usually calculated using GRDP data, income accompanied by the final market value of final goods and services produced at a certain time during one year [12].

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The Special Autonomy Fund is a source of regional income for the Aceh Government and Regency/City Governments. The law issued by the Central Government gives full authority to the Provincial Government in managing the Special Autonomy Fund and is considered as the Aceh Government's revenue to finance development programs. The management of the Special Autonomy Fund is aimed at catching up with regional development lags by taking into account the balance of development progress between regencies/cities. Although the Central Government distributes special autonomy funds through the provincial government, the special autonomy funds are also district/city revenues [5].

In the consideration of Law no. 11 of 2006 it is stated that the granting of this Special Autonomy status is not only based on the recognition of the distinctive historical character of the Acehnese struggle, it also considers that the administration of government and the implementation of development in Aceh have not been able to fully realize the welfare of the people, justice and fulfillment, and protection of human rights. The Special Autonomy Fund is Aceh's largest source of ariab revenue with a portion reaching ± 60% (sixty percent) of the provincial budget, or about ± 25% (twenty five percent) of the total ariab budget in Aceh (province and district/city). The Special Autonomy Fund has become the largest source of revenue outside the General Allocation Fund [5].

Dependency ratio is one of the important demographic variables. Dependency ratio can be used as a variable that can roughly show the economic condition of a country whether it is classified as a developed country or a developing country. The higher the dependency ratio, the higher the burden that must be borne by the productive population to finance the lives of the unproductive and unproductive population. While the lower percentage of Dependency ratio indicates the lower the burden borne by the productive population to finance the unproductive and unproductive population.[11]

Infrastructure is a measure of a nation's position on the global stage. The relevance of infrastructure to the world is the second feature assessed by the World Economic Forum (WEF) to determine a country's competitiveness. Inefficient and inadequate infrastructure leads to high transaction costs that can hinder the economy and progress in other fields. Infrastructure consists of physical infrastructure which includes transportation, communication and others, while variable infrastructure consists of health education, sanitation, electricity and others. Infrastructure is the nature of primary services and has a real impact on the quality of human life [7].

Farmer's Exchange Rate (NTP) is a proxy variable for farmer's welfare. Farmer's Exchange Rate is an arbitrary comparison of the price index received by farmers (It) with the index of prices paid by farmers (Ib). In theory, NTP is to measure the welfare of farmers, namely to see farmers' income and expenditures, if income is greater than expenditure, the welfare of farmers will increase, and vice versa [17].

In general, there are three meanings of Farmer's Exchange Rate, First, if the NTP > 100, it means that the farmer has a surplus, the price of production increases more than his consumption. Farmers' incomes increased more than their expenditures. Thus, the level of farmer welfare is better than the previous variable of the farmer's welfare level. Second, NTP = 100, it means that farmers break even. The increase or decrease in the price of production goods is equal to the percentage increase or decrease in the price of consumption goods. The level of farmers' welfare has not changed. Third, NTP < 100, means that farmers experience a variable. The increase in the price of their production goods is variable, which is smaller than the increase in the price of their consumption goods. The level of farmer welfare in a period experienced a decrease in the variable level of farmer welfare in the previous period [13].

RESEARCH METHODS

Data Analysis Method

Researcher Data Method. The structural equation model in this study is formulated as follows: (Gujarati: 2004)

Substructural equation model I:

$$Y1 = α0i + β1Y1X1it + β2Y1X2it + β3Y1X3it + β4Y1X4it + β5Y1X5it + ε1it \quad ...(1)$$

Substructural equation model II:

$$Y2 = α0i + β6Y2X1it + β7Y2X2it + β8Y2X3it + β9Y2X4it + β10Y2X5it + β11Y2Y1it + ε2it \quad ...(2)$$

Information:
Y1   : Education Level
Y2   : Poverty
α   : Constant
β   : Regression Coefficient
X1   : GRDP
X2   : Special Autonomy Fund
X3   : Dependency Ratio
X4   : Infrastructure
X5   : Farmer's Exchange Rate
i   : 1, 2, 3,..... 23 (Cross-Section Data of Kota Regency in Aceh Province)
t   : Time/period (Time Series Data, 2016-2020)
ε   : Term of Error

RESEARCH RESULT

Inferential Statistical Analysis

A. Results of Path Analysis (Path Analysis) Substructure I

The results of the substructure equation I, which states that the Gross Regional Domestic Product (GRDP), special autonomy funds, dependency ratio, infrastructure and farmer price index (NTP) affect the level of education in Aceh Province can be seen in the following table:

TABLE 1: Substructure Path Analysis Coefficient Test Results I

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.075462	2.725734	2.595801	0.0603
X1	2.01E-05	5.60E-06	3.582868	0.0231
X2	4.80E-05	5.11E-05	0.939961	0.4005
X3	-0.018430	0.024018	-0.767346	0.4857
X4	0.000134	8.45E-05	1.588572	0.1874
X5	-0.002853	0.012388	-0.230284	0.8292
R-squared	0.978313	Mean dependent var		8.804000
Adjusted R-squared	0.951205	S.D. dependent var		0.350847
S.E. of regression	0.077500	Akaike info criterion		-1.993361
Sum squared resid	0.024025	Schwarz criterion		-1.811810
Log likelihood	15.96680	Hannan-Quinn criter.		-2.192522
F-statistic	36.08930	Durbin-Watson stat		2.094639
Prob(F-statistic)	0.002013			

Source: Research Results, 2021 (Data Processed)

Based on table 1.1, the path analysis equation for the substructure equation I in this study is as follows:

$$Y_1 = 0,000020 Y_1 X_1 + 0,000048 Y_1 X_2 - 0,018430 Y_1 X_3 + 0,000134 Y_1 X_4 - 0,002853 Y_1 X_5 + \varepsilon_1$$

The estimation result of the GRDP variable coefficient is 0.000020 (2.01E-05) and is significant in prob. $0.0231 <= 0.05$. This means that there is a positive and significant influence between GRDP on the level of education in Aceh Province. If there is an increase in GRDP of 1 rupiah, the level of education in Aceh Province will increase significantly by 0.000020 percent. Conversely, if there is a decrease in GRDP of 1 rupiah, the level of education in Aceh Province will decrease significantly by 0.000020 percent in one year, cateries paribus.

The estimation result of the special autonomy fund variable coefficient is 0.000048 (4.80E-05) and is significant in prob. $0.4005 >= 0.05$. This means that there is a positive and insignificant effect between special autonomy funds on the level of education in Aceh Province. If there is an increase in the special autonomy fund by 1 rupiah, the level of education in Aceh Province will increase insignificantly by 0.000048 percent. Conversely, if there is a decrease in

special autonomy funds by 1 rupiah, the level of education in Aceh Province will decrease significantly by 0.000048 percent in one year, cateries paribus.

The estimation results of the dependency ratio variable coefficient are -0.018430 and are significant in prob. 0.4857 > = 0.05. This means that there is a negative and insignificant effect between the dependency ratio on the level of education in Aceh Province. If there is an increase in the dependency ratio by 1 person, then the level of education in Aceh Province will decrease insignificantly by 0.018430 percent. Conversely, if there is a decrease in the dependency ratio by 1 person, then the level of education in Aceh Province will increase insignificantly by 0.018430 percent in one year, cateries paribus.

The result of the estimated coefficient of the infrastructure variable is 0.000134 and is significant in prob. 0.1874 > = 0.05. This means that there is a positive and insignificant effect between infrastructure and the level of education in Aceh Province. If there is an increase in infrastructure by 1 percent, the level of education in Aceh Province will increase insignificantly by 0.000134 percent. On the other hand, if there is a 1 percent decline in infrastructure, the level of education in Aceh Province will decrease significantly by 0.000134 percent in one year, cateries paribus.

The estimation result of farmer's exchange rate variable coefficient (NTP) is -0.002853 and is significant in prob. 0.8292 > = 0.05. This means that there is a negative and insignificant effect between the exchange rate of farmers on the level of education in Aceh Province. If there is an increase in the farmer's exchange rate by 1 percent, then the level of education in Aceh Province will increase insignificantly by 0.002853 percent. Conversely, if there is a decrease in the farmer's exchange rate by 1 percent, then economic growth in Aceh Province will increase insignificantly by 0.002853 percent in one year, cateries paribus. The value of Adjusted R Square obtained is 0.9512 or 95.12% which shows the ability of the GRDP variable, special autonomy funds, dependency ratio, infrastructure and farmer exchange rates in explaining the variations that occur in the level of education in Aceh Province of 95.12%. , while the remaining 4.88% is influenced by other variables not examined in this study.

B. Results of Path Analysis (Path Analysis) Substructure II

The results of the substructure II equation, which states that GRDP, special autonomy funds, dependency ratio, infrastructure, farmer exchange rates and education levels affect the poverty index in Aceh Province can be seen in the following table:

TABLE 2: Substructure Path Analysis Coefficient Test Results I

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	19.59154	2.481766	7.894192	0.0042
X1	-3.55E-05	6.39E-06	-5.559708	0.0115
X2	-0.000141	3.14E-05	-4.492398	0.0206
X3	-0.054577	0.014295	-3.817788	0.0316
X4	0.000360	6.00E-05	6.000831	0.0093
X5	-0.060596	0.006929	-8.744951	0.0031
	-0.364205	0.277851		0.2812
R-squared	0.992347	Mean dependent var		3.065000
Adjusted R-squared	0.977040	S.D. dependent var		0.284224
S.E. of regression	0.043067	Akaike info criterion		-3.256089
Sum squared resid	0.005564	Schwarz criterion		-3.044279
Log likelihood	23.28044	Hannan-Quinn criter.		-3.488443
F-statistic	64.83144	Durbin-Watson stat		2.123729
Prob(F-statistic)	0.002902			

Source: Research Results, 2021 (Data Processed)

Based on table 1.2, the path analysis equation for the substructure equation II in this study is as follows:

Y_2 = -0,000035Y_2X_1 – 0,000141Y_2X_2 – 0,054577Y_2X_3 + 0,000360Y_2X_4 - 0,060596Y_2X_5 – 0,364205Y_2Y_1 + ε_2

The estimation result of the GRDP variable coefficient is -0.000035 (-3.55E-05) and is significant in prob. $0.0115 < = 0.05$. This means that there is a negative and significant influence between GRDP on the poverty index in Aceh Province. If there is an increase in GRDP of 1 rupiah, the poverty index in Aceh Province will decrease significantly by 0.000035 percent. On the other hand, if there is a decrease in GDP by 1 rupiah, the poverty index in Aceh Province will increase significantly by 0.000035 percent in one year, cateries paribus.

The estimation result of the special autonomy fund variable coefficient is -0.000141 and is significant in prob. $0.0206 < = 0.05$. This means that there is a negative and significant effect between the special autonomy funds on the poverty index in Aceh Province. If there is an increase in special autonomy funds by 1 rupiah, the poverty index in Aceh Province will decrease significantly by 0.000141 percent. On the other hand, if there is a decrease in the special autonomy fund by 1 rupiah, the poverty index in Aceh Province will increase significantly by 0.000141 percent in one year, cateries paribus.

The estimation result of the dependency ratio variable coefficient is -0.054577 and is significant in prob. $0.0316 < = 0.05$. This means that there is a negative and significant effect between the dependency ratio on the poverty index in Aceh Province. If there is an increase in the dependency ratio by 1 person, the poverty index in Aceh Province will decrease significantly by 0.054577 percent. Conversely, if the dependency ratio decreases by 1 percent, the poverty index in Aceh Province will increase significantly by 0.054577 percent in one year, cateries paribus.

The estimation result of the infrastructure variable coefficient is 0.000360 and is significant in prob. $0.0093 < = 0.05$. This means that there is a positive and significant influence between infrastructure and the poverty index in Aceh Province. If there is an increase in infrastructure by 1 percent, the poverty index in Aceh Province will increase significantly by 0.000360 percent. Conversely, if there is a decline in infrastructure by 1 percent, the poverty index in Aceh Province will decrease significantly by 0.000360 percent in one year, cateries paribus.

The estimation result of farmer's exchange rate variable coefficient is -0.060596 and is significant in prob. $0.0031 < = 0.05$. This means that there is a negative and significant effect between the farmer's exchange rate on the poverty index in Aceh Province. If there is an increase in the farmer's exchange rate by 1 percent, the poverty index in Aceh Province will decrease significantly by 0.060596 percent. Conversely, if there is a decrease in the farmer's exchange rate by 1 percent, the poverty index in Aceh Province will increase significantly by 0.060596 percent in one year, cateries paribus.

The estimation result of the education level variable coefficient is -0.364205 and is significant in prob. $0.2812 > = 0.05$. This means that there is a negative and insignificant effect between the level of education on the poverty index in Aceh Province. If there is an increase in the level of education by 1 percent, the poverty index in Aceh Province will decrease insignificantly by 0.364205 percent. Conversely, if there is a decrease in the level of education by 1 percent, the poverty index in Aceh Province will increase insignificantly by 0.364205 percent in one year, cateries paribus.

The Adjusted R Square value obtained is 0.9770 or 97.70% which shows the ability of the GRDP variable, special autonomy funds, dependency ratio, infrastructure, farmer exchange rates and education level in explaining the variations that occur in the poverty index variable in Aceh Province of 97.70%, while the remaining 2.30% is influenced by other variables not examined in this study.

Direct Effect, Indirect Effect and Total Effect

The calculations for the analysis of direct influence, indirect effect and total effect are as follows:

TABLE 3: Result of Direct Effect, Indirect Effect and Total Effect Between Variables

Connection Variables	Pengaruh		Total Effect
	Direct Effect	Indirect Effect Y_1	
$X_1 \rightarrow Y_1$	0,000020		0,000020
$X_2 \rightarrow Y_1$	0,000048		0,000048
$X_3 \rightarrow Y_1$	-0,018430		-0,018430
$X_4 \rightarrow Y_1$	0,000134		0,000134
$X_5 \rightarrow Y_1$	-0,002853		-0,002853
$X_1 \rightarrow Y_2$	-0,000035	-0,000007	-0,000042
$X_2 \rightarrow Y_2$	-0,000141	-0,000017	-0,000158
$X_3 \rightarrow Y_2$	-0,054577	0,006712	-0,047865
$X_4 \rightarrow Y_2$	0,000360	-0,000049	-0,000311
$X_5 \rightarrow Y_2$	-0,060596	-0,001039	-0,061635
$X_1 \rightarrow Y_2$	-0,364205		-0,364205

Source: Research Results, 2021 (Data Processed)

The magnitude of the error value for each independent variable effect on the dependent is obtained through the following calculations: $\beta e_1 = 1 - 0,9512 = 0,0488$

$\beta e_2 = 1 - 0,9770 = 0,0230$

FIGURE 4
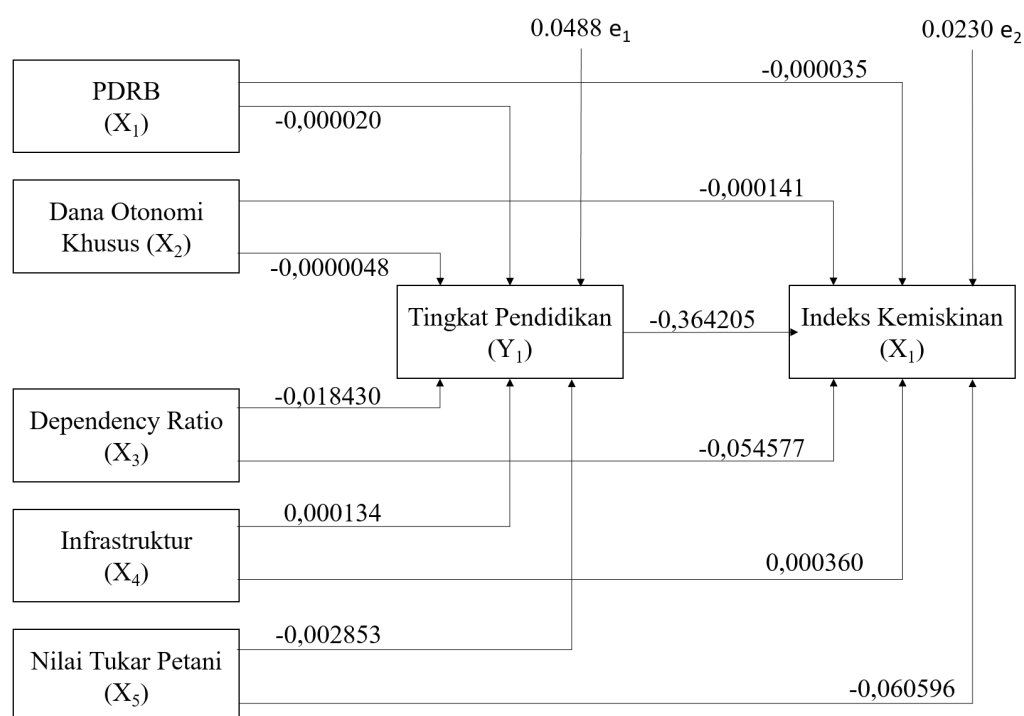
Based on the results of the research the relationship between the variables formed by the path analysis coefficient model. The substructure equation can be used as a path analysis coefficient model, which is as follows:

Substructure Equation I:
$Y_1 = 0,000020Y_1X_1 + 0,000048Y_1X_2 - 0,018430Y_1X_3 + 0,000134Y_1X_4 - 0,002853Y_1X_5 + 0,0488\varepsilon_1$

Substructure Equation II:
$Y_2 = -0,000035Y_2X_1 - 0,000141Y_2X_2 - 0,054577Y_2X_3 + 0,000360Y_2X_4 - 0,060596Y_2X_5 - 0,364205Y_2Y_1 + 0,0230\varepsilon_2$

In trimming theory, the validity of the research model is observed through the calculation of the coefficient of total determination as follows:

$$
\begin{aligned}
Rm^2 &= 1 - (0{,}0488^2)\,(0{,}0230^2) \\
&= 1 - (0{,}00238144)\,(0{,}000529) \\
&= 1 - 0{,}0000012598 \\
&= 0{,}9999 \\
&= 99{,}99\%
\end{aligned}
$$

The value of the coefficient of determination of 0.9999 indicates that 99.99% of the information contained in the data can be explained by the model, while the remaining 0.01% is explained by errors and other variables outside the model. The coefficient number in this model is relatively large so it deserves further interpretation.

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Data Envelopment Amalysis (DEA) Approach in Regional Shopping Efficiency in the Health Sector in Southern Sumatra

Merri Anitasari
Katharina Septia Matondang
Faculty of Economics and Business,
Universitas Bengkulu, Indonesia

ABSTRACT

This study aims to determine the level of health expenditure efficiency of district / city governments in Southern Sumatra in 2019. The method of measuring efficiency used is Data Envelopment Analysis (DEA), with an output oriented model based on Variable Return to Scale (VRS). The type of data used in this research is secondary data, the type of data used is 2019 cross section data. Inputs used are regional spending in the health sector and the number of health workers. The output used is Life Expectancy (AHH). The results showed that the variation in efficiency from the smallest to the largest was 0.876-1,000. The average level of efficiency of health spending in districts/cities in Southern Sumatra is 0.947, which means that the average district / city government is efficient in using its expenditure budget, especially for health spending in 2019. Specifically, districts/cities with relatively efficient health spending are Pangkal Pinang City (Bangka Belitung Province), Sungai Penuh City (South Sumatra Province), Pesisir Barat Regency (Bangka Belitung Province).

Keywords: Efficiency, Health Expenditure, Employee in Health Section, Life Expectancy, Data Envelopment Analysis

INTRODUCTION

In the development process the role of health is very important because Health is able to create resource quality humans. Health is an important indicator in improvement of human resources and the variable that will determine the quality human resources of a country. Lots problems that occur in a country as a result of health factors that are not right on target, one of them is a new disease and lack of availability of health facilities has become a common problem in health.

Efficiency is an achievement maximum output with input specific or input use lowest to reach a certain output. Efficient shopping can increase the welfare of society at large, if used sparingly and appropriately the efficiency level will be high. but if the opposite happens then its efficiency is low. The size of shopping health is positively related to achieving public health status. The larger government health spending, the better the degree of public health. Health shopping required by the government, including in the distribution of development expenditures.

In terms of regional and total government spending, health spending on the island of Sumatra, province South Sumatra is the largest second only to the province of North Sumatra (which is the largest population on the island Sumatra), followed by the province of Bangka Belitung which became a province with sides expenditure and lowest total health budget on the island of Sumatra. province South Sumatra has budget data that the highest so that the province of Sumatra South accepts the highest regional income of the other four provinces. And also Province South Sumatra has expenditure data the highest regional expenditure for finance routine expenses and development expenditures for finance activities projects regional development of the four provinces throughout Southern Sumatra. Therefore The researcher chose the province of Sumatra South and Bangka Belitung with the province that covers it is Lampung, Bengkulu, and Jambi which included in the Southern Sumatra region.

Efficiency is a measurement ability to change input (source power) to become output (goods or goods) services), which aims to optimize balance between the level of output and input level. Efficiency is efficiency achieving maximum output with or use minimum input for achieve a certain output (Mardiasmo, 2009).

Data Envelopment Analysis (DEA) is mathematical programming techniques used to evaluate efficiency relative to a decision-making unit Decision Making Unit (DMU) in evaluate resources (inputs) so that becomes a result (output), where relationship form function from input to output not known to the DEA normally used to measure service efficiency provided by governments, organizations non-profit and state-owned enterprises. According to Indrawati (2009), there are a number of condition which can is said to be efficient, namely: Capable of generating output specified with the lowest input low With

certain input capable produce an output of big The input used can be optimally allocated to achieve output using lowest cost Therefore, the DEA will generate relative efficiency value between activity units economics (UKE) under study. With DEA, the unit of economic activity (UKE) efficiently has 0-100, if the value of efficiency = 1 then it is called efficient otherwise if the efficiency value <1 then called inefficient (inefficiency).

Some previous research using the number of health workers for special functions such as health,because the number of health workers per number population indicates the level of service and the availability that can be provided by health workers compared to the number of existing population so that this research also use the number of health workers for health as input in efficiency measurement (Pamungkas et al., 2016).

The most widely used output in the health sector is life expectancy. Although various types of output have been used in previous studies to determine the efficiency of government spending, not all of these outputs can be used as a basis for calculating the efficiency of government spending in Indonesia, especially in the Southern Sumatra region. For the health sector in this study is life expectancy. This output was chosen as a reflection of the welfare of the community. (Adam, et al., 2011; Afonso & Aubyn, 2005; González, et al., 2010; Herrera & Pang, 2005; Hsu, 2014; Ouertani, et al., 2018; Pertiwi, 2007; Rambe, 2020). Health expenditure is related to human development, the existence of an allocation will strive for a better level of health. Improving health outcomes is expected to increase health indicators or increase life expectancy. Life Expectancy (AHH) is one of the indicators in measuring the health of an individual in an area.

Therefore, in order to optimize health sector spending potential based on efficiency considerationsthat is, using resources minimum in order to achieve good results, optimum and effectiveness. By Iatar after the problem, the writers are interested in conducting research on government spending efficiency analysis of the health sector in 60 districts/cities in Southern Sumatra in 2019.

The objective of the study is to measure health spending efficiency level in district/city of the local government in Southern Sumatra in 2019. This research analyzes the level of sector's regional relative health spending efficiency in 60 districts/cities regional government of Southern Sumatra in 2019. This research uses Data EnveLopment Analysis (DEA) method. The input variables used are realization of regional expenditure on health functions and number of health workers, as well as Life Expectancy (AHH) as output variable.

METHODOLOGY

This type of this research is descriptive approach with data analysis EnveLopment AnaLysis (DEA) uses Assuming VariabLe Return to ScaIe (VRS) and modeI output orientation (output oriented). This research will analyze efficient health sector government spending in Southern Sumatra in 2019. In this research, the variables that are used are the health spending budget as input and the number of medical personnel as an output variable.

A. Efficiency is a measurement of usage regional spending and energy availability work (input) in increasing numbers life expectancy (output) on regencies/cities in Southern Sumatra region of 2019. Relative efficiency score for each district/city is 0-100% or 1 where,
Efficiency score = 1, called relative efficient
Efficiency score < 1, is called relative inefficient or inefficient

B. Health spending is usage regional expenditure (input) used in the health sector in the APBD Regional budget) in regencies/cities in Southern Sumatra region of 2019.

C. The number of health workers is the number of total health personnel (input) who consists of Non- Permanent Employees (PTT) that is Doctor/dentist/doctor specialists, Midwives and Permanent Officers (PT) consists of nursing staff and nutrition workers in Southern Sumatra region of 2019.

D. Life Expectancy (AHH) is average years of life (output) used as a tool for knowing level health people in Southern Sumatra region.

Data used in this research is secondary data, types of data used is cross section data. The data used is in the form of realization data of regional spending on the health sector and the amount of health workers throughout the hospital and health center. The data source comes from the Central Bureau of Statistics (BPS) 2020, and the Directorate General Financial Balance.

The analytical method used In this research there is a non method parametric withmethod Data Environment Analysis (DEA). With DEA can measure relative efficiency for all analyzed unit.

The efficiency model in this study is:

    Objective function
    Max Eμ1Y1   …(1)
    Subject to
    υ1X1 + υ2X2 = 1   …(2)
    μ1Y + μ0 - (υ1X1 + υ2X2) ≤ 0   …(3)
    μ1, υ1,2 ≥ 0   …(4)

Where Y1 = Life expectancy; X1 = Health spending; X2 = Total power health; E = efficiency value of DMU; μ1 = weight for output Y; υ1,2= weight for input X; μ0 = cut off, can be positive or negative.

FINDINGS

Measurement of the relative efficiency of the health sector to the government regencies/cities in Southern Sumatra were obtained using an input variable in the form of nominal health expenditures issued by each district/city local government. The first input, namely health spending has an average of 196.293 billion with the highest expenditure in the city of Palembang of 508.158 billion and the lowest is Pesisir Barat Regency of 77.032 billion.The second input is the number of health workers consisting of doctors, nurses, midwives, pharmacists, and nutritionists. In table 4.2 it can be seen that the total number of health workers in the Southern Sumatra region is 68,002 with the least number of health workers owned by Pesisir Barat Regency, namely The city of Palembang has 181 people and the largest number of health workers, namely 5,136 souls. From table 4.2, it can also be seen that the highest and lowest numbers for each district/city in the Southern Sumatra region in 2019.

    The government's output in this study is related to the purpose of governance, namely to improve the welfare of the community (UU 32/2004 article 2). Thus, the output used in efficiency is a variable that reflects the level of community welfare. The output used in measuring efficiency in the health sector is life expectancy (AHH). The output used has an average of 68.76 years. In 2019 the highest AHH is owned by the city of Pangkal Pinang, which is 73.12 years and the lowest AHH is owned by Lebong Regency, which is 63.12 years. In table 4.3, it can be seen the lowest and highest values for each district/city in the Southern Sumatra region in 2019.

    The assumptions used are the amount of input for health spending issued by the local government and input of human resources, namely the amount total health workers are able to produce output on life expectancy (AHH). To obtain measurement information that, this research will use DEA method with output oriented model based on Variable Return to Scale (VRS). Shopping efficiency measurement results local government in 2019 can seen in table 1.

    The efficiency value in regional health sector expenditure in Southern Sumatra is obtained by using the input variable in the form of nominal health expenditure issued by each district/city government and by looking at the input of the total number of health workers in each district/city. The output variable used to calculate the relative efficiency value is life expectancy (AHH). The assumption used is that the amount of health expenditure input issued by the regional government and the input of human resources is the total number of health workers capable of producing output at life expectancy (AHH). To obtain the measurement information, this research will use the DEA method with an output oriented model based on the

TABLE 1. The Results of Calculating the Relative Efficiency of Regional Expenditures for the Health Sector Per District/City in Southern Sumatra in 2019 using the Data Envelopment Analysis Method

District Name	Efficiency Score	Original Value	Projected Value	Radia Movement
Kota Pangkal Pinang	1,000	73,120	73,120	0
Kota Sungai Penuh	1,000	72,010	72,010	0
Kab. PesisirBarat	1,000	63,270	63,270	0
Kota Jambi	0,992	72,570	73,120	0,550
Kab. Belitung Timur	0,991	71,900	72,582	0,682
Kota Metro	0,990	71,550	72,299	0,749
Kab. BangkaTengah	0,982	71,160	72,489	1,329
Kab. Muaro Jambi	0,978	71,180	72,813	1,633
Kab. Belitung	0,978	70,948	72,558	1,618
Kota Bandar Lampung	0,975	71,280	73,120	1,840

District Name	Efficiency Score	Original Value	Projected Value	Radia Movement
Kab. Merangin	0,975	71,180	73,005	1,825
Kab. Bangka	0,972	70,990	73,006	2,016
Kab. TulangBawang Barat	0,970	69,880	72,076	2,196
Kab. Batanghari	0,969	70,440	72,692	2,252
Kab. BangkaBarat	0,968	69,990	72,267	2,277
Kab. Lampung Timur	0,966	70,610	73,120	2,510
Kota Palembang	0,965	70,540	73,120	2,580
Kab. Pringsewu	0,965	69,850	72,377	2,527
Kab. TulangBawang	0,963	69,880	72,584	2,704
Kab. Kerinci	0,963	69,820	72,496	2,676
Kab. Tebo	0,963	69,910	72,579	2,669
Kota Prabumulih	0,959	70,090	73,120	3,030
Kota Bengkulu	0,958	70,040	73,120	3,080
Kab. Lampung Tengah	0,954	69,750	73,120	3,370
Kota LubukLinggau	0,950	69,040	72,650	3,610
Kab. Way Kanan	0,949	69,270	72,986	3,716
Kab. Pesawaran	0,949	68,880	72,611	3,731
Kab. Sarolangun	0,947	69,090	72,952	3,862
Kab. Lampung Selatan	0,946	69,200	73,120	3,920
Kab. Lampung Utara	0,944	69,050	73,120	4,070
Kab. Mesuji	0,944	68,040	72,071	4,031
Kab. Bengkulu Tengah	0,944	68,120	72,129	4,009
Kab. OKU Timur	0,942	68,870	73,120	4,250
Kab. Banyuasin	0,940	68,760	73,120	4,360
Kab. Muara Enim	0,939	68,630	73,120	4,490
Kab. Bangka Selatan	0,939	67,900	72,288	4,388
Kab. Penukal Abab LI	0,938	68,070	72,532	4,462
Kab. Musi Banyuasin	0,937	68,540	73,120	4,580
Kab. Tanggamus	0,937	68,400	73,001	4,601
Kab. Ogan Komering Ilir	0,936	68,410	73,120	4,710
Kab. Kepahiang	0,936	67,780	72,429	4,649
Kab. Rejang Lebong	0,935	68,370	73,120	4,750
Kab. Tanjung Jabung Barat	0,934	68,030	72,837	4,807
Kab. Lampung Barat	0,932	67,430	72,337	4,907
Kab. Bengkulu Utara	0,931	68,040	73,120	5,080
Kab. Ogan Komering Ulu	0,930	68,010	73,120	5,110
Kab. Musi Rawas	0,929	67,860	73,079	5,219
Kab. Bengkulu Selatan	0,927	67,790	73,120	5,330
Kab. Bungo	0,926	67,710	73,120	5,410
Kab. Seluma	0,926	67,560	72,943	5,383
Kab. OKU Selatan	0,919	66,760	72,680	5,920
Kota Pagar Alam	0,918	66,410	72,343	5,933
Kab. Kaur	0,918	66,500	72,471	5,971
Kab. Tanjung Jabung Timur	0,910	66,080	72,591	6,511
Kab. Mukomuko	0,910	66,510	73,120	6,610
Kab. Lahat	0,909	65,760	72,362	6,602
Kab. Musi Rawas Utara	0,903	65,430	72,420	6,990
Kab. Empat Lawang	0,895	64,810	72,420	7,610
Kab. Ogan Ilir	0,892	65,210	73,120	7,910
Kab. Lebong	0,876	63,120	72,038	8,918

Source: Processes Data using DEA-VRS-Ouput Oriented

DISCUSSION

Efficiency is a measurement of the ability to change inputs (resources) into outputs (goods or services) which aims to optimize the balance between the level of output and the level of input. Efficiency can be interpreted as a comparison between the output produced and the input used. An area can be said to have implemented a program that is run efficiently if the desired output can be achieved with regional expenditures or expenditures to a minimum. A score of 1 = relatively efficient, while a score of < 1 means that it is relatively inefficient compared to other districts/cities. As for the data that used to support this research are health expenditure and number of health workers as input and life expectancy (AHH) as output, where the data is used to find out how many districts/cities in Southern Sumatra which was late in reaching the efficient level in 2019.

The results of the efficiency analysis in table 1 of regional spending on the health sector in Southern Sumatra, where in determining the level of efficiency using a calculation tool using the Data Envelopment Analysis (DEA) method based on the assumption of Variable Return to Scale (VRS) with an output oriented model shows the result that there are 3 efficient regencies/cities namely Pangkal Pinang City, Sungai Penuh City, and Pesisir Barat Regency, this shows that only 3 regencies/cities are able to maximize the output function. The results of the calculation using DEA explain that districts/cities that achieve efficiency are the use of health expenditure inputs and a certain number of health workers can produce maximum output. This shows that the local government has better programs and activities than others so as to achieve an efficient level.

The first input, namely expenditure on health functions from 57 regencies/cities which is inefficient, shows that there are 23 regencies/cities that achieve the average value of health spending, while the second input is the number of health workers from 57 regencies/cities which are inefficient. there are 21 districts/cities that reach the average value of the number of health workers, thus the largest input in this health sector is health spending.

Furthermore, DEA provides recommendations for 57 districts that are not yet efficient (inefficient) to benchmark (reference) to relatively efficient districts/cities (called peer). The number of inefficient districts/cities for each peer is presented in table 2

TABLE 2: District Benchmark Kota Which is Inefficient

Province	Inefficient District	Benchmark
Jambi	10	-Kota Pangkal Pinang -Kota Sungai Penuh
Bangka Belitung	6	-Kota Pangkal Pinang -Kota Sungai Penuh
Lampung	13	-Kota Pangkal Pinang -Kota Sungai Penuh
Sumatera Selatan	17	-Kota Pangkal Pinang -Kota Sungai Penuh
Bengkulu	10	-Kota Pangkal Pinang -Kota Sungai Penuh

Source: Processes Data using DEA

In table 2, provinces with the most Peers are shown by Pangkal Pinang City, namely from 60 regencies/cities in Southern Sumatra, there are 57 regencies/cities that refer to Pangkal Pinang City showing a similar level of input and output use and followed by Sungai Penuh City which is the reference. the second largest after Pangkal Pinang City, with 36 regencies/cities referring to it. (can be seen in the attached DEA calculation). However, it can be seen in table 4.5 that only Pesisir Barat Regency is not a benchmark for inefficient regions because it is seen from spending.

The number of health workers and the number of health workers is the smallest and least in Southern Sumatra so it cannot reflect or be an example for inefficient regions. Similarly, research by (Rambe, 2020) shows that the data used are 34 provinces in 2015-2018. The inputs used are expenditures per capita for the functions of education, health, economy and social protection. The outputs used are life expectancy, average length of schooling and real per capita expenditure. The efficiency measurement method used is Data Envelopment Analysis (DEA), with an output oriented model based on VRS. The results show that there are 5 provinces that are always relatively efficient, and there are 7 provinces that are relatively efficient only in certain years.

In research by Maharani (2011). which analyze the level of efficiency of the public sector, especially local government health sector spending and the results show that in general most

districts/cities in Central Java Province are still not efficient in technical health costs, this indicates that there is still waste in the use of health spending. which is quite large but is not followed by the provision of adequate health facilities and services for the community.

In this study, based on the results of calculations using Data Envelopment Analysis between the realization of health expenditures, the number of health workers and the life expectancy of each district/city in Southern Sumatra in 2019, the results obtained from 60 districts/cities there were only 3 districts/cities that achieved efficient. This shows that technically there are still many areas that have not reached the efficient level. This suggests that relatively large regional spending on the health sector does not always result in efficient outcomes. Overall, there are still many areas that have not been achieved efficiency (E = 1).

The following is an analysis of the results of the efficiency of data processing: 1. Efficiency Summary (Efficient Analysis), In Summery's Efficiency seen in the VRSTE column, the area with a value of 1 = efficient. The DEA results for efficient districts/cities are Pangkal Pinang City, Sungai Full City, and Pesisir Barat District; 2. Summarry of peers (Analysis that refers to relatively efficient regions), The Summary of Peers explains how many efficient regencies/cities are references for inefficient regencies/cities. All districts/cities that are inefficient on average refer to only 2 and 1 district/city. There are 2 cities that become references for each district/city that are not yet efficient, namely Pangkal Pinang City and Sungai Full City. One of them, Ogan Komering Ulu Regency refers to Pangkal Pinang City; 3. Summary Of Peer Weights (The analysis determines the weight of the dominant area), In the summary of peer weights, will determine the largest dominant peer weight. One of them is the East Belitung district will be more efficient when referring to the city of Pangkal Pinang because the value of the weight of the city of Pangkal Pinang is greater than other districts cities; 4. Peer Count Summary (Analysis of the reference area), The Peer Count Summary looks at the regencies/cities that have the most references to other regencies/cities. One of them is in the city of Pangkal Pinang which has 57 regencies/cities that refer to it to be more efficient.

CONCLUSION

Based on the results of research and discussions were held regarding Analysis of Regional Expenditure Efficiency in Health Sector in Southern Sumatra in 2019 with health shopping and the number of health workers as input and Life Expectancy (AHH) as output in Data Envelopment Analysis (DEA) method show variations in health shopping efficiency in each district/city from the smallest and the largest are 0.876-1,000. Average level of efficiency in health spending in regencies/cities in Southern Sumatra part is equal to 0.947 which means that the average district/city government efficient in using budget the shopping is specifically for health shopping in 2019. Specifically districts/cities that spend on health relatively efficient, namely Pangkal Pinang City, Sungai Penoh City, Pesisir Barat District (Krui). Of the 60 regencies/cities in Southern Sumatra there are only 3 districts/cities that show efficiency, and 57 districts show inefficiency with the highest inefficiency value in Lebong Regency is 0.876 and the value of the lowest inefficiency in Jambi City is 0.992, then the results of the DEA . measurement shows it's still not effective performance of each local government.

In order to increase efficiency, local government support regencies/cities in Southern Sumatra South and related parties indispensable, especially in disbursement of funds for health shopping to improve people welfare. The importance of improving each inefficient area so that refer to their respective peers to reach the rate of Life Expectancy (Output) optimal/maximum For districts/cities in Southern part of Sumatra that already efficient with value = 1 then the need maintain input and output so that the level of efficiency remains efficient in the future.

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Poverty, Public Policy, and Institutional Governance: The Extension of Kuznets Model

Anindya Mitra Raisnur Putri
Muhammad Hakimi Shafiai
Muhammad Adib Ismail
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Abdul Ghafar Ismail
Faculty of Economics and Muamalat,
Islamic Science University of Malaysia, Malaysia

ABSTRACT

The purpose of this paper is an extension of the economic development theory of the Kuznets model in the case of poverty alleviation framework. Emphasizing on the role of social spending and the regional independence level as an instrument of poverty alleviation. This study also involved control variables by Islamic Financial Institution under the government which plays a role in distributing income through zakat instruments. The method of study proposes a model extension based on the model built by Kuznets which is characterized by an inverted U-curve in a quadratic model. Control variables are included in the regression analysis and the best model traced carried out using the All-Possible Regression method. We extend Kuznet's curved relationship model applicable in socio-economic studies, where poverty is a social phenomenon that affects economic growth. To control the phenomenon of poverty throughout economic growth, government policies and zakat institutions that play a role in poverty continue to decline or even get worse. This study presents an expanded model that can be a useful policy instrument towards maximizing government programs to alleviate poverty through public policy and institution governance.

INTRODUCTION

Piketty's contradiction with Kuznets's hypothesis about the long-run relationship between economic growth and inequality poses a challenge as to whether this hypothesis holds true in social studies. In addition, Piketty's opinion states that this relationship does apply (Lyubimov 2017). However, there are variables that can control changes in inequality during changes in economic growth and this is confirmed by Kuznets. Therefore, this study aims to develop a model in socio-economic studies related to the relationship between poverty and economic growth accompanied by control variables on poverty. This study focuses on the situation in Indonesia by considering, among others, the first situation in Indonesia where inequality and high poverty gaps occur between regions, especially the Eastern region. Indonesia implements a decentralized system, where local governments are given the authority to manage their respective territories.

Starting from the Kuznets hypothesis (1955) that inequality will increase in the first phase of economic development and will decline again even though economic growth continues to grow. This relationship is characterized by an inverted U-curve which is intuited. When an economy's income is at a low level, there are only a few wealthy individuals so that the inequality or gap in welfare becomes very extreme. However, along with the increase in overall income, it is accompanied by an increase in employment and employment opportunities resulting in mobility for low to middle income households (Li 2017).

Kuznets's theory is based on observations of a limited number of developed and underdeveloped countries for a certain period (cross section), According to Ota (2017), it is necessary to examine further empirical surveys covering various regions for different time periods as a hypothesis verification process. The use of cross section data to support the validity of the Kuznets hypothesis is supported by Ahluwalia (1976) for 60 countries in 1970 and Barro (2008) with 54 countries in 1960, 77 countries in 1970, 90 countries in 1980 and 120 countries in 1990. While those who did not reject Kuznets's hypothesis were Saith (1983) with 60 countries and Anand and Kanbur (1993) with 60 countries in 1975.

Another hypothesis contradicts Lewis (1954) that national prosperity is achieved when the economic sector structure tends to increase the industrial sector. Likewise with Piketty (2015) and Bourguignon (2005) that most economists are now somewhat skeptical about the universality in the

evolution of long-run inequality. According to them, the evidence for cross-sectional data on the effect of growth sharing is not necessarily conclusive, although it is true that the data in the 1970s show a parabolic relationship. But in subsequent years, the increasing inequality that had prevailed in most developed countries from the 1970s to the 1980s, failed to produce a statistically significant decision.

In the predictions put forward by Kuznets relating to an increase in income when economic growth increases so that there will be many individuals who can achieve high incomes is opposed by Piketty. According to Piketty (2014) that in a capitalist economic system when economic growth increases, portfolio investment and profits are drastically increased, resulting in the emergence of super-rich individuals. Meanwhile, most of the population is engaged in labor, as a result income inequality will worsen.

However, these two different views recognize that there are strong economic forces that tend to increase inequality in a market economy (Kuznets 1955). Likewise, according to Piketty (2014), although inequality continues to take place in line with changes in economic growth, there are policies that can be aligned to bring inequality under control.

In several studies, this method has been widely used, especially in relation to the environment. The extension of the Kuznets hypothesis was used to assess the relationship between various indicators of environmental degradation and per capita income (Stern 2004). According to the Kuznets Income Inequality hypothesis, EKC assesses that in the early stages of economic growth degradation and pollution increase, but at a certain level of income per capita the trend decreases so that at the highest income level the pollution level becomes very low. Many EKC studies have been carried out on environmental changes such as energy consumption and greenhouse gas emissions (Ismail and Mawar 2012), CO2 pollution (Nuansa 2018), electricity access (Setyadharma et al. 2020).

Based on Kuznets and Piketty's view that inequality can be controlled by other variables, this study intends to expand the model by involving variables controlled by institutions based on the hypothesis and model proposed by Kuznets. The quadratic model in the Kuznets curve hypothesis is used to see the relationship between per capita income and poverty when social spending, the level of regional independence and zakat distribution are institutional control variables. The results of the study are expected to produce a model that represents the phenomena that occur in developing countries in Asia, besides that it represents a model for countries that implement a decentralized system.

LITERATURE REVIEW

The seriousness of poverty varies in each developing country, especially in Asia, especially in the fields of health and education. In addition, reducing inequality or eradicating poverty according to Ravallion (2015) should not be separated from the role of institutions and government in managing good governance. According to (Deolalikar et al. 2002) poverty is not only an economic or social phenomenon, but also political and governmental processes and how these interact with each other. This relationship illustrated from the mediation view of interaction, where institutions that deal with poverty affect poverty directly and indirectly. Institutions on the other hand influence government policies that have an impact on growth and distribution results so that it has an impact on the speed and quality of economic growth.

Governments and institutions play a role in reducing poverty and inequality in income. However, none of the institutions, whether local government, national, financial or local leadership, has succeeded in improving the standard of living, especially for rural communities. Therefore, the government or institutions need to take appropriate steps and require support in all fields, both legal, social and cultural so that poverty can be eradicated (Shafiai dan Moi 2015).

Poverty and Economic Growth

Within the philosophical framework Poverty is a condition of individuals who are judged to experience injustice in moral and political philosophy (Aselin 2009). According to Tomlinson et al. (2008), Acemoglu and Robinson (2002) that Poverty is inherently political because it brings policies to respond to poverty eradication imposed on the system by mass mobilization.

Whereas within the empirical framework, poverty is a social phenomenon that is of concern to academic experts and policy makers to identify poverty and measure the stage of deficiency in a person's life (Mehari 2002). Within a few hundred years, poverty became a multidimensional phenomenon of depending on income and spending for basic needs (Orshansky 1965). This approach measures the poor with a minimum income of US$1.90 a day (HDR 2016). Through a financial approach based on income and expenditure, it is useful to facilitate reports with large samples and gives the power to test hypotheses that have a broad impact on the dimensions of life (Meyer & Sullivan 2003).

In recent studies, the financial approach in identifying poverty has led to numerous criticisms from academic experts who considered this method inappropriate in analyzing the causes of human poverty (Sen 1976). Some scientists and academics reject the approach of income and spending designing different concepts and approaches. Most countries in identifying deficiencies are beginning to shift to approaches that can cover multiple dimensions. According to Townsend (1979), the resource capability approach can capture the underlying shortages to obtain various aspects of living standards both materially and socially.

The Kuznets hypothesis examines the relationship between per capita income and inequality, this inequality can be interpreted as a gap or in some studies using the GINI indicator (Barro 2008, James et al 2012, Ota 2017, Baymul and Sen 2020). According to Haughton, poverty is related to inequality (Haughton and Khandker 2009) where inequality is related to the full distribution of welfare while poverty is focused on the lowest distribution. This lowest share of the distribution is termed those below the poverty line (McKay 2002).

According to the UN, per capita income can be defined as the level of GDP per capita obtained by dividing GDP at market prices by the total population (SNA 1993). This indicator is a basic economic indicator and measures the level of total economic output relative to the population of a country that reflects changes in the total welfare of the population. According to Diacon (2015), income as a proxy for living standards and economic growth is an indicator of socio-economic deprivation conditions. So that in a monetary perspective, poverty reduction focuses on income inequality, while in a multidimensional poverty perspective it focuses on access to public resources and services.

From the financial approach, poverty is a concept of deficiency based on income and consumption needed to meet basic needs (Haughton and Khandker 2009). This is in line with the study of Fadillah and Dewi (2016), based on a study in Central Java there is a relationship between the level of income per capita with unemployment and poverty. In addition, there is an elastic relationship between per capita income and poverty so that government measures in addition to income distribution through social assistance, self-employment programs and community empowerment in the productive sector of small businesses are also increased.

However, based on the human capabilities approach (Sen 1993), poverty based on income cannot accurately reflect non-monetary aspects. This approach looks at how human abilities in different circumstances can make their lives more meaningful and participate in social activities (Sen 1999). Several studies of economic growth and financial poverty such as Kakwani and Pernia (2000) recognize that in economic growth, no one in society loses the minimum basic ability. In the study of Santos et al (2016), it was proven that if economic growth took place, it showed a large impact on reducing income poverty and multidimensional poverty. Therefore, the concept of poverty used in any model should not dictate the approach used but depend on the considerations and objectives of the research.

The effect of Social Spending on Poverty

According to the OECD (2019), social spending is aimed at low-income households, the elderly, disabled, sick, unemployed, or young people. Social expenditures can consist of cash allowances, direct provision of goods and services, tax breaks for social purposes and the benefits of these distributions can be classified as public policies. According to Spicker (2002) that the welfare state can eliminate the causes of poverty with certain political choices and with various social functions that can provide its citizens with a minimum standard of living by utilizing taxes. Social spending is an expenditure that must be issued by the government but there are benefits that are greater than the price to be paid.

Moreover, according to Caminada et al. (2019) that social assistance to underprivileged people, poor families and the unemployed can reduce inequality and reduce poverty. From a theoretical point of view, social spending should reduce poverty in both the short and long term (Celikay and Gumus 2017). According to Lundberg et al. (2016) the level of generosity in a country's social protection policy affects the level of health and the health gap of its people. In the long-term effect, there is a stronger relationship to the death rate, especially if it is below the poverty threshold.

The effectiveness of social spending in Indonesia is widely studied in each region or region ranking. According to Rahmawati (2020) using data from 2014 to 2017 it was found that social spending in East Java Province has a significant effect on the human development Index (HDI). However, it is contrary to the study conducted by Sendouw (2017) that social spending, capital and economic growth either partially or together have a positive influence on the level of poverty.

Public Policy and Institution Governance in Indonesia

The decentralization system in Indonesia adheres to two laws, namely Law no. 32 of 2004 concerning Regional Autonomy and Law 22 of 1999 concerning the structuring of regional government systems. The purpose of implementing this decentralization is to give the regions the authority to manage their respective fiscal and regional resources to reduce the burden on the center and provinces, by prioritizing wisdom and community participation, streamlining governance, and implementing development programs (Ismail and Hamzah 2006). The fiscal system in a decentralized system is regulated in Law no. 25 of 1999 with the aim of increasing the responsiveness and fiscal capacity of local governments in improving people's welfare and reducing poverty.

In institutional structure, the government system in Indonesia is divided into five layers, namely the center, province, district or city, sub-district and sub-district or village. However, in fiscal management, it is limited to the district or city level, while the ranking of sub-districts and urban villages depends on district or city policies (Nasution 2016).

Social Spending in Indonesia

Based on the Preambule of the 1945 Constitution, the fourth paragraph states that the objectives of the establishment of the Republic of Indonesia are:

> *"...protect the entire Indonesian nation and the entire homeland of Indonesia and to promote public welfare, educate the nation's life, and participate in carrying out world order based on independence, eternal peace and social justice".*

To achieve this goal, the structure of the royal spending in APBN/APBD expenditure includes social assistance spending. Social Assistance spending is defined as the transfer of money or goods provided by the Central/Regional Government to the community for protection from possible social risks (Technical Bulletin No. 04 on Expansion and Exposure of Royal Expenditures).

Social spending is a shopping structure in regional fiscal policy that is used for the purpose of protection and social welfare as well as eradicating poverty (KSAP 2011). Empirically, government social spending has a significant impact on income inequality and eradicating poverty (Ulu 2018, Onen 2010, Altan 2006).

With the full power of the regional government, the poverty reduction program through regional social spending is closely monitored by the region. Therefore, management skills must be given to regions so that the management and distribution of social expenditures fulfills effective, efficient and optimum aspects. Referring to the guidelines published by the Royal Perakaunan Authority, the skills that must be possessed in relation to applicable issues include planning, budgeting, implementing and providing financial accountability (KSAP 2011).

However, the management of social spending has problems, therefore, such as the opinion of Piketty (2014) which states that it is necessary to have a controlled variable that can affect inequality or poverty. Based on the results of the BPK audit decision in 2019 there were main issues that were learned regarding the distribution of income through the social spending of regional government. The results are the first, the consistency of the use of regulations carried out by the government is not optimal. This is shown by the many changing rules and adjustments in the stages of getting a decision. This change causes the poverty reduction program to experience non-uniformity. In addition, it was found that there was an abuse of power in the management and collection of social assistance expenditures. A similar problem also occurred during the pandemic last year, where the employee responsible for distributing social assistance was accused of being a corruption.

Furthermore, another finding in the audit is the validity of the use of demographic data which refers to the Unupdated Community Benefit Data (DTKS). Based on BPK's findings, the DTKS data used is 2014 data, so there is a 5-year gap in the distribution of social assistance in 2019. Therefore, the distribution of social assistance programs is not transparent. This issue is widely discussed at various levels, but there are still few studies that test its effectiveness on multidimensional poverty.

The third finding in the BPK audit relates to a disbursement scheme through banking institutions that may pose a non-optimal risk to the poverty eradication program. Based on the results of a strategy carried out by the Financial Services Authority (OJK) that the financial literacy index in Indonesia in 2019 only reached 29.7 percent while the financial inclusion index was 76.19 percent (OJK-SNLIK 2019). Therefore, the billing scheme designed must take into account the indicators that support this program.

Independence Level in Regional Financial

The financial relationship between the central and regional governments is regulated in Law No.33 of 2004 concerning the financial balance between the central and regional governments. In the law, local governments are given the authority to obtain income other than balancing funds by considering fiscal stability and balance. Based on Law No. 23 of 2014 local governments to have the ability to manage regional finances and increase income other than tax-based can establish a corporate business sector where all shares are owned by the local government.

In measuring regional financial achievements, the government has issued Royal Regulation Number 8 of 2006 regarding Financial Reports and Achievement of Regional Agencies. According to BPS (2019) that the independence of regional government in developing their regions so as not to depend on central or provincial government assistance can be measured by the amount and increase in Regional Original Income (PAD). The higher the ratio of PAD to the total income, the higher the level of regional independence and vice versa. The ratio of the Regional Independence Level (TKD) in the highest financial aspect in 2019 was owned by Bali with a ratio of 46.95 percent, while the lowest ratio was West Papua at 4.49 percent. This is in line with the level of poverty where Papua is the region that has the highest poverty rate.

Based on the decision of the Ministry of Finance's assessment of the government's revenue in 2018 whether measured at the national or regional level, it was found that the highest contribution in regional income was controlled by revenue from local excise. The contribution of local excise duty in regional government revenue is 47.6 percent followed by other income at 39.9 percent. When the contribution from the management of regional wealth and regional retribution is only 3.8 percent and 8.7 percent.

Based on Law Number 28 of 2009, local excise duty is a personal or corporate obligation that is coercive. A total of 19 excise objects, both in the form of goods and services, such as motorized vehicles, motor vehicle fuel, surface water, cigarettes, hotels, restaurants, entertainment, billboards, street lamps, metal or mineral stones and non-minerals, vehicle locations, groundwater for swallow breeding, land and buildings. The determination of the excise rate is different for each object of excise duty, starting from 0.075 percent for heavy vehicles that do not use public roads to 75 percent for typical entertainment excise objects such as fashion shows, beauty competitions, discos, karaoke, nightclubs, agility games, massage booths and so on. spa.

Zakat

In the Islamic perspective, poverty is a shared responsibility that must be overcome according to the 4th pillar of Islam, namely the instrument of zakat. As emphasized by the Qur'an in more detail about the purpose and people who are entitled to receive zakat (At-Taubah: 60). This obligation has a social function in society that can reduce various social problems (Qardhawi 2002, 1999).

The history of Islamic civilization records the importance of the role of zakat in fostering Islamic civilization (KNKS 2019). Zakat instruments have functions and benefits, especially in the aspects of virtue (birr), goodness (ihsan) and brotherhood (ukhuwah) when circulated bringing widespread social benefits. Through the institution of zakat, infaq, alms and waqf (ZISWAF) as a tool to strengthen the people's economy that can be used for the social financial system. Therefore, the state may make this institution a solution to Muslims in particular and the general public in dealing with poverty as an addition to the state revenue channel through excise.

The growth of ZIS collection in Indonesia has shown satisfactory results since 2002, amounting to IDR 68.38 billion until 2018 amounting to IDR 8,117.60 billion when growth reached an average of 34.82 percent (BAZNAS 2018). However, a study needs to be carried out to identify whether the increase was due to the awareness of Muslims to carry out zakat obligations or caused by an increase in muzakki income in line with the increase in KDNK at the national level. In addition, to identify the effectiveness of zakat on poverty, especially the 8 asnaf that have been determined by syarak. In Surah At-Taubah verse 60 that the groups who are entitled to receive zakat are the indigent, poor, amil, converts, riqab, gharimin, fisabilillah and ibn sabil.

To optimize the distribution of zakat, as a philanthropist or Islamic philanthropist, zakat collection must of course give a positive impression to the 8 asnaf group. The equality of the asnaf group provides a clear definition for identifying poverty and overseeing the distribution of zakat to the deserving group so that it contributes to the study of poverty in determining and finding the causes of poverty. In Indonesia, BAZNAS as an institution appointed by the government to manage zakat funds, conducts a study on the effect of zakat on groups entitled to receive zakat (BAZNAS 2018).

However, there are still problems such as low collection of zakat funds and non-optimal distributions to the productive sector (BI 2018). Therefore, the government through Bank Indonesia reserved a conceptual framework for optimizing Islamic social finance in supporting the economy. In this design, zakat is distributed through 4 channels including productive facilities, consumable use, social facilities and commercial expansion. Therefore, the role of the government in encouraging and accelerating the development of zakat, both in terms of institutions and regulations is very necessary. Thus, zakat management must be measurable and designed and produce optimal decisions, especially in the era of the industrial revolution in facing future challenges. (Ismail, 2019).

METHODOLOGY

The economic development model in the Kuznets Curve shows that income inequality increases in the initial phase of development and at a certain point will decrease again in line with better economic development. The formation of the basic model of the Kuznets Curve explores the relationship between economic growth and per capita income in the form of an inverted U-curve or quadratic curve (Equation 1). In the study of economic growth and income inequality by Kuznets, the relationship is characterized by a quadratic model resulting in an inverted U-curve model (Kuznets 1955). Where Y is the income inequality and X represents percapita of GDP. The quadratic model used in the Kuznets model is as follows:

$$Y_{it} = {}_o + 1X_{it} + 2X_{it}2 \quad \dots(1)$$

Referring to several studies which are extensions of the Kuznetss Model by involving controlled variables such as the model in the Environment Kuznets Curve (Sterpu et al. 2018), the expected model as follows:

$$Y_{it} = \beta_o + 1X_{it} + 2X_{it}2 + 1Z1_{it} + 1Z2_{it} + 1Z3_{it} \quad \dots(2)$$

Where Y is poverty and X is income per capita with control variable Z1 is BSD, Z2 is TKD and Z3 is Zakat. Where 0, 1, 2, p is a regression multiplier and x1, x2 …xn while is another variable term outside the model and assumptions are assigned to other variables so that it is possible to draw conclusions about the remaining model parameters (Montgomery et al. 2012).

Criteria for selecting the best model To test the model hypothesis with the help of multiple linear regression analysis, the data collected was carefully examined for possible multicollinearity problems to provide a valid and reliable data analysis (Saunders et al. 2016). The assumption must be fully supported so that the resulting budgeter meets the criteria for the Best Linear Coverage Measure (BLUE) (Gujarati 2012). The test of this assumption includes tests of normality, multicollinearity, autocorrelation and heteroscedasticity. Before the hypothesis test is run, the selection of the model must be done to get the best model.

According to Oshima and Ross (2016), the procedure for all possible subsets (All Possible Regression / APR) is a method for selecting the best model for multiple regression. Although there is an automatic linear model, which is the method most often used, it has the potential to be misused because of its simplicity. Therefore, although the APR method is time-consuming because it assesses all possible combinations of various regression models, this method can trace various model states in a sequential and sequential manner.

Based on the estimation of the number of models to be analyzed, it was found that there were 32 models including the Y model only, then the other 31 models were arranged based on the number of independent variables entered. First of all, all possible subset regression models that have only one forecast are installed, then the model obtained as follows:

$$P = \beta_o + 11(IC) + \varepsilon \quad \dots(3)$$
$$P = \beta_o + 12(IC)2 + \varepsilon \quad \dots(4)$$
$$P = \beta_o + 2(TKD) + \varepsilon \quad \dots(5)$$
$$P = \beta_o + 3(BSD) + \varepsilon \quad \dots(6)$$
$$P = \beta_o + 4(Z) + \varepsilon \quad \dots(7)$$

Second, all possible subset regression models that have only two forecasts are installed, then the model obtained as follows:

$$P=\beta o+ 11IC+ 12IC2+\varepsilon \qquad …(8)$$
$$P=\beta o+ 12(IC)2+ 2TKD+\varepsilon \qquad …(9)$$
$$P=\beta o+ 11IC+ 3BSD+\varepsilon \qquad …(10)$$
$$P=\beta o+ 11(IC)+ 4(Z)+4(Z)+\varepsilon \qquad …(11)$$
$$P=\beta o+ 12IC2+2TKD+\varepsilon \qquad …(12)$$
$$P=\beta o+ 12(IC)2+3BSD+\varepsilon \qquad …(13)$$
$$P=\beta o+ 12(IC)2+4(Z)+\varepsilon \qquad …(14)$$
$$P=\beta o+ 2TKD+ 3BSD+\varepsilon \qquad …(15)$$
$$P=\beta o+ 2TKD+4(Z)+\varepsilon \qquad …(16)$$
$$P=\beta o+ 3BSD+4(Z)+\varepsilon \qquad …(17)$$

Third, all possible subset regression models that have only three forecasts are installed, then the model obtained as follows:

$$P=\beta o+ 11IC+ 12IC2+2TKD+\varepsilon \qquad …(18)$$
$$P=\beta o+ 11IC+ 12IC2+3BSD+\varepsilon \qquad …(19)$$
$$P=\beta o+ 11IC+ 12IC2+4(Z)+\varepsilon \qquad …(20)$$
$$P=\beta o+ 11(IC)+ 2TKD+3BSD+\varepsilon \qquad …(21)$$
$$P=\beta o+ 11(IC)+2TKD+4(Z)+\varepsilon \qquad …(22)$$
$$P=\beta o+ 11(IC)+3BSD+4(Z)+\varepsilon \qquad …(23)$$
$$P=\beta o+ 12(IC)2+2TKD+3BSD+\varepsilon \qquad …(24)$$
$$P=\beta o+ 12(IC)2+ 2TKD+4(Z)+\varepsilon \qquad …(25)$$
$$P=\beta o+ 12(IC)2+3BSD+4(Z)+\varepsilon \qquad …(26)$$
$$P=\beta o+ 2TKD+3BSD+4(Z)+\varepsilon \qquad …(27)$$

Fourth, all possible subset regression models that have only four forecasts are installed, then the model obtained as follows:

$$P=\beta o+ 11IC+ 12IC2+2TKD+3BSD+\varepsilon \qquad …(28)$$
$$P=\beta o+ 12(IC)2+ 12IC2+2TKD+4(Z)+\varepsilon \qquad …(29)$$
$$P=\beta o+ 11IC+ 12IC2+3BSD+4(Z)+\varepsilon \qquad …(30)$$
$$P=\beta o+ 11(IC)+ 2TKD+3BSD+4(Z)+\varepsilon \qquad …(31)$$
$$P=\beta o+ 12IC2+2TKD+3BSD+4(Z)+\varepsilon \qquad …(32)$$

Finally, all possible regression models that have all independent variables are installed, then the model obtained as follows:

$$P=\beta o+11IC+12IC2+2TKD+3BSD+4(Z)+\varepsilon \qquad ...(33)$$

Equation 33 is a full budgeted basic model, where this model assesses the relationship between poverty and economic growth which is represented by IC and IC2 which is a quadratic function based on the Kuznets curve principle function. While the TKD represents the administrative management of the institution in terms of the ability to generate regional income compared to the income transferred from the center. When relations with on a lay basis are represented by BSD by the local government and Z by non-ministerial government institutions.

CONCLUDING REMARKS

The Kuznet curve model is the basis for the study of economic development, the expansion of this model has been widely studied, especially in the aspect of environmental degradation. There are still few studies that use this model to study the relationship between economic growth and poverty accompanied by control variables. Although the discussion of this study seems to focus on the policy structure in Indonesia that implements fiscal decentralization. However, this does not mean that this model cannot be implemented in countries with other forms of government. However, further empirical studies need to be carried out to prove whether the model shows the same characteristics as the Kuznets hypothesis or vice versa as Piketty expects.

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What Drives Value on Pharmaceutical Firms During the Covid-19 Pandemic?

Khaira Amalia Fachrudin
Handy Octavianus
Faculty of Economics and Business,
Universitas Sumatera Utara, Indonesia

ABSTRACT

Enterprise Value (EV) is the indicator of firm's total value and might be considered as the effective cost of acquiring a firm or the theoretical price of a target firm. This research is aimed at collecting empirical evidence and analyzing the factors that influence enterprise value in pharmaceutical firms with an emphasis on economic crises resulted from the COVID-19 pandemic. A total of 834 pharmaceutical firms in the Wall Street Journal were used as the sample of this research. Logistic regression was conducted as the statistical analysis tool. The findings of this research indicated that at alpha one percent the investors put more appreciation on pharmaceutical firms that have innovation in their health products compared to those that only have high sales levels. The present study confirms that profitability and firm size remain the main determinant in establishing enterprise value. The novelty of this study lies in the validation that the assets turnover has an effect on EV probability above average at pharmaceutical firms during the COVID-19 pandemic. The implications of this research for pharmaceutical firms are that quality products, profitability and firm size are key drivers to company value creation.

Keywords : Enterprise value, pharmaceutical firms, return on assets, total assets turnover

INTRODUCTION

The main purpose of establishing a firm is to improve the welfare of the shareholders by increasing the firm value. The increased firm value should provide benefits for all firm's stakeholders, especially shareholders in the form of capital gain and yield. Orientation towards maximizing the owner's assets is congruent with the maximizing enterprise value. The theory of firm value and empirical tests on the factors that can affect value has been much conducted on various corporate sectors and economic conditions. Generally, the test is performed in a normal economic state (Madden, 2021). On March 11, 2020 the World Health organization (WHO) declared the pandemic status as a result of the COVID-19 (WHO, 2020a) spread that affect all aspects of human life, including the economic upswing as a result of permanently and temporarily suspended firm activities as an attempt to avoid wider spread of COVID-19 (Nguyen & Hoang Dinh, 2021). A number of industries, especially tourism, flight, construction and financial sectors are impaired. However, the agribusiness, telecommunication, retail, e-commerce and pharmaceutical sectors are not affected by the recession due to pandemic COVID-19 (Aduhene & Osei-Assibey, 2021; Golubeva, 2021; Harjoto & Rossi, 2021; Sharifi & Khavarian-Garmsir, 2020). Studies on the negative impact of COVID-19 pandemic on firm's sustainability have been carried out since 2020. Considering that the industrial sectors that were not affected by the COVID-19 pandemic are many and they showed positive performance during the pandemic, studies on companies that are not affected by the economic crisis as a result of COVID-19 are thus worthy of conducting in order to get a more comprehensive views of the effects caused by the crisis.

The economic crisis resulted from the impact COVID-19 pandemic brings has attracted researchers' interests in financial management to analyze the effects that arise in companies of multiple sectors. A study carried out by Nguyen and Hoang Dinh (2021) discovered that companies in Vietnam are more likely to be more stringent in debt management to safeguard financial stability during the crisis due to the COVID-19 pandemic. Golubeva (2021) in her research on companies in 13 countries, discovered that the firm's sector, size and export capabilities were the factors that most affected firm's sustainability during the COVID-19 pandemic.

Sinamo and Hanggraeni (2021) conducted a study on banking sectors in Indonesia and found significant decline in capital expenditures (49.09% from the previous year) and there is no multiplier effect on the balance sheet of banking companies. During the crisis due to the COVID-19 pandemic, banking companies avoid using their reserve funds as alternative funding. In the meantime, Anh and Gan (2020) conducted a study on capital market conditions in Vietnam during pre-lockdown and lockdown periods (January – May 2020) and found that stocks return fell during pre-lockdown and managed to go

up during the lockdown. While the financial sector is the most hit during the early phase stage of COVID-19 pandemic. This is in line with the research undertaken by Harjoto and Rossi (2021) that found that COVID-19 pandemic has a significant negative impact on stocks return in developing countries as opposed to developed countries. Financial and energy sectors suffered negative implications leading to all-time high either in developing countries or developed countries. On the contrary, health and telecommunication sectors have shown positive impact due to the COVID-19 pandemic.

The current economic crisis is caused by the threatened human health pandemic due to the COVID-19, making some supporting and relevant sectors related to human health, especially the pharmaceutical sector, experiencing an increase in performance. The characteristics of pharmaceutical firms are uniquely different from that of other sectors. The difference is twofold, the strict regulation that controls pharmaceutical firms, and the high investment made in the R&D division of the firm which is intended to improve human capital ability and medical technology and thereby creating patent rights for innovative development of their medical products. (Boasson & Boasson, 2015; Jirásek, 2017; Vishnu & Kumar Gupta, 2014)

There are 2100 pharmaceutical firms in the Wall Street Journal that show varied enterprise values in 2020, some having a value above the industry average and some do not. This research is aimed at collecting empirical evidence and analyzing the factors that influence enterprise value in pharmaceutical firms on Wall Street Journal with an emphasis on economic crises resulted from the COVID-19 pandemic. This research is expected to contribute to financial management literature by analyzing the factors that can influence the creation of value for pharmaceutical firms based on pandemic COVID-19. Therefore, this study created the following research questions: Are the factors that influence the enterprise value probability above average in the pharmaceutical sector in the world due to the COVID-19 pandemic?

To answer the above questions, the study was conducted on a sample of 834 companies listed on the Wall Street Journal in 2020. The variables in this study include firm values is proxited with enterprise value (EV) above average as dependant variable, while firm characteristics tested is various proxy of corporate financial performance such as assets turnover (ATO), return on assets (ROA), current ratio (CR), gross margin (GM), operating margin (OPM), and things related to pharmaceutical firms firm specific, such as total debt, intangible asset (INT) structure, assets growth and firm size.

The findings in this study are expected to give a contribution to pharmaceutical firms owners and policymakers within health sectors.

THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT

Enterprise value

Enterprise value is the interpretation of the benefits investors can have over the firm's ownership. In other words, firm's value is the present value of all future benefits that the firm may have over the firm's ownership. There are many proxies from firm's value, one of them is enterprise value (EV) that investors commonly use as a parameter for acquiring a firm (Kenney, 1995).

Generally speaking, EV is defined as the total market capitalization and the firm's credit market value subtracted by cash and cash equivalents. EV is used as a reference for investors when comparing companies with different existing capital structures. Enterprise value is subject to change over time based upon investor's appreciation of stock market value and debt (Dang et al., 2019; Essert, 2002; Platt et al., 2010). The determination of enterprise value in this study adopted the formulation proposed by Dang et al. (2019),

$$EV=(\text{Market capitalization}+\text{Market value of preferred equity}+\text{Market value of debt}+\text{Minority interest})-\text{Cash and cash equivalent} \quad \ldots(2)$$

Assets Management

Firm asset management can be measured by assets turnover proxy, which is the comparison between sales and firm total assets (Ullah et al., 2020). In other words, this measurement will describe firm's ability to use its assets to create sales, thus the increased sales increase cash inflows and in turn will improve the enterprise value (Ionita & Dinu, 2021). During the COVID-19 pandemic, the pharmaceutical firms will have its assets optimized in terms of meeting the demand for medicine, vitamin and vaccine. To the best of author's knowledge, there has been no research empirically proved the effect of pharmaceutical firms assets turnover on the probability of enterprise value increase above average during the pandemic. Therefrom, this research proposes the following hypothesis as a research novelty:

H1: Assets turnover has a positive and significant effect on the pharmaceutical enterprise value probability above average during the COVID-19 pandemic.

Profitability

An effective and efficient firm financial performance will ensure the firm's sustainability. Firm's maximum value is the firm's ability to create cash flow derived from all firm activities that generally consist of operational, investment, and financing activities (Damodaran, 2015). Firm's financial performance is typically proxited at firm's profitability levels such as gross margin, operating margin, and return on assets (ROA). The increase in firm's financial performance will increase firm's value which is one of investors' perceptions towards the firm with regard to firm's ability to providing economic benefits to their shareholders (Jensen & Meckling, 1976). The firm's profitability level either in times of crisis and normal times has a definite effect on the firm's value. On this basis, the following hypothesis are proposed:

H2: The profitability ratio consisting of return on assets, gross margins, operating margin provide a positive and significant effect on the probability of pharmaceutical enterprise value above average during the COVID-19 pandemic.

Liquidity

The firm's liquidity level poses an early parameter in determining the firm's health. As a firm experiences current assets deficiency and is unable to fulfill its short-term obligations, it will suffer from a financial crisis and eventually experience bankruptcy (Fachrudin, 2021; Karim et al., 2021; Nishihara & Shibata, 2021). For a pharmaceutical firm, liquidity might pose a serious issue. The main investment in pharmaceutical firms was made in the R&D division. However, there seems to be a number of uncertainties in such investment as research failure in the field of health is quite high (Jirásek, 2017). Since return on investment is uncertain, generally, pharmaceutical firms constantly remain in an illiquid state. However, during the COVID-19 pandemic, the demand for health products is increasing. Based on these arguments, the following hypothesis are proposed:

H3: Liquidity measured with current ratio has a positive and significant effect on the pharmaceutical enterprise value probability above average during the COVID-19 pandemic.

Debt management

The capital structure serves as the basis for investment decision made by the firm and would eventually give value to the firm. Debt decision for the firm has a bi-directional implication, on a controllable condition where debt utilization could serve as leverage for the firm and provide benefit for the firm. On the contrary, if the debt cannot serve as leverage, its use is not optimal, hence, it will generate high costs and cause financial distress for the firm and finally decrease Firm's value (Kraus & Litzenberger, 1973; Octavianus et al., 2021). In pharmaceutical firms, debt position should be considered carefully. This is related to the tight cashflow in pharmaceutical firms and high need for investment in R&D (Boasson & Boasson, 2015). Considering the high level of failure in R&D investment and cashflow volatility of pharmaceutical firms due to uncertainty in product outcomes, this research develops the following hypothesis:

H4: Capital structure measured with debt ratio has a negative and significant effect on the pharmaceutical enterprise value probability above average during the COVID-19 pandemic.

Assets Structure

In the 5.0 society, a firm should be aware that investment behavior should be changed, from tangible assets to the dominance of intangible assets, making the firm able to create an added value for the firm with its competitive advantage (Hulten & Hao, 2012; Ionita & Dinu, 2021; Li et al., 2021). Pharmaceutical firms should be equipped with innovation in order to be more innovative in producing health products that come in handy for the community. Tangible assets including software, patents, goodwill, are assumed to be able to increase enterprise value. Therefore, this study created the following hypothesis:

H5: Intangible assets has a positive and significant effect on the pharmaceutical enterprise value probability above average during the COVID-19 pandemic.

Growth

Firm's growth is an important indicator for investors. Investors tend to appreciate the firm that has high growth. This in turn makes a well-performed firm to experience an overvalued condition (Baker & Wurgler, 2002). The overvalued condition in the firm might have positive implications as well as negative effect. Positive condition can be described as the state wherein the firm catches market's interest in order to make it easier for the firm to have wider access in the capital market. At the same time, however, this state would create agency problem in the firm and therefore has an implication on firm's performance as well as at higher levels may cause financial distress for the firm and will eventually decrease firm's value (Jensen, 2005). In pharmaceutical firms, growth serves as a positive signal for investors, especially during the COVID-19 pandemic, when people expect to have latest health products that can improve their health level. Therefore, the following hypothesis are proposed:

H6: Growth has a positive and significant effect on pharmaceutical enterprise value probability above average during the COVID-19 pandemic.

Firm Size

The larger the size of a Firm, the more trust put on the investors, thus making it easier for the Firm to access capital from external parties. Therefore, the Firm will have the flexibility in making an investment which lead to the increase in Firm's value(Feng et al., 2020; Golubeva, 2021; Guizani, 2020). During the COVID-19 pandemic, larger companies tend to sustain their earnings, especially the technology companies and pharmaceutical firms. While the smaller-scale companies generally experience financial distress (Levy, 2020). Therefrom, the following hypothesis are proposed:

H7: Firm size has a positive and significant effect on the pharmaceutical enterprise value probability above average during the COVID-19 pandemic.

METHOD

Research samples and data

A total of 2100 global pharmaceutical firms from the Wall Street Journal were taken as the population in the present study. While a total of 834 firms that could provide complete required data were selected as the sample in the present study. The independent variable data are the data as of December 31, 2020, while the dependent variable data of enterprise value are the data with 3 months forward lag after the date.

Operational definition and measurement of the variables

The operational variables definitions are explained based on the concepts relevant to the objectives so as not to create different perceptions. The dependent variables in this study are firm values proxited by enterprise value (EV). To make a standardized value, the measurement was done with enterprise value to total assets. Enterprise value to assets valuation is a key evaluation ratio in the financial parlance that helps companies to assess firm's worth. The first step to do is to look up the mean value of enterprise value to total assets ratio from all samples. Figure 1 is given to companies with enterprise value to total assets ratio above the sample mean, and figure 0 is given to other samples. These 1 and 0 figures are given because this research aims to observe the probability of enterprise value above average. The independent variables in this research include assets turnover, return on assets, current ratio, gross margin, operating margin, total debt to total assets, tangible assets, assets, assets growth, and size (Anju & Uma, 2017; Dang et al., 2019).

To gain the effect of firm's sustainability and to achieve key evaluation ratio, we performed modification by dividing EV to firm's total assets, so that the formula in this study has similarity with that of Tobin's Q formula (Lee & Choi, 2015; Liew & Devi, 2020). In the meantime, Battisti et al. (2020) measured firm's value using EV proxy to EBIT to show its operating profits ability to firm's value creation. The measurements of the variables in the present study are shown in Table 1 below,

TABLE 1. Variables Operational Definition

Variables	Measurement	References	Expected sign
Y Enterprise Value (EV)	1 = firm EV/TA above samples mean , 0 = otherwise	(Anju & Uma, 2017; Dang et al., 2019)	
X_1 Total Assets turnover	$\dfrac{\text{Sales}}{\text{Total assets}}$	(Yahya & Hidayat, 2020)	Positive
X_2 Gross Margin	$\dfrac{\text{Sales-Cost of goods sold}}{\text{Sales}}$	(Tran et al., 2017)	Positive
X_3 Operating Margin	$\dfrac{\text{EBIT}}{\text{Sales}}$	(Chandra et al., 2019)	Positive
X_4 Return on Assets	$\dfrac{\text{Net income}}{\text{Total assets}}$	(Anju & Uma, 2017; Dang et al., 2019)	Positive
X_5 Current Ratio	$\dfrac{\text{Current assets}}{\text{Current liabilities}}$	(Anju & Uma, 2017)	Positive
X_6 Total Debt to Total Assets	$\dfrac{\text{Total Debt}}{\text{Total assets}}$	(Alipour et al., 2015; Feng et al., 2020)	Negative
X_7 Intangible Assets to Total Assets	$\dfrac{\text{Intangible assets}}{\text{Total assets}}$	(Ionita & Dinu, 2021; Ramirez & Hachiya, 2012)	Positive
X_8 Assets Growth	$\dfrac{\text{Total assets}_t\text{-Total Assets}_{t-1}}{\text{Total Assets}_{t-1}}$	(Bajaj et al., 2020)	Positive
X_9 Size	Ln(Total Assets)	(Anju & Uma, 2017)	Positive

Source: Authors ellaboration

Binary regression model
$$y_{1t} = a + b_1x_{1it} + b_2x_{2it} + ... + b_9x_{9it} + \mu \qquad ...(2)$$

Descended into logistics distribution function
$$P_{it} = 1 / [1+\exp (a + b_1x_{1it} + b_2x2_{it} + ...b_9x_{9it} +)] \qquad ...(3)$$

P_{it} = enterprise value probability above average with value between 0 and 1

FINDINGS AND DISCUSSION

Descriptive Statistic

Table 2 below presents the data in this study. There are 144 companies with EV above the sample mean.

TABLE 2: Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
X_1	0.03	33.76	0.91	2.30
X_2	-29.93	99.71	45.04	23.01
X_3	-159	76.68	7.37	24.67
X_4	-105.79	75.45	2.766	14.56
X_5	0.16	38.79	2.97	3.32
X_6	-12.7	81.13	20.00	16.21
X_7	0.00	0.48	0.46	2.42
X_8	-0.99	13.19	0.12	0.59
X_9	0.05	16.93	10.55	2.52

Logistic Regression Test Results

Model Coefficients Omnibus Test
Omnibus test statistics measure the overall model fit. It uses a chi-square test equivalent to the F-test in linear regression. The null hypothesis is rejected in case the p-value of the omnibus test statistic is smaller than the significance level. Significant test statistics imply that logistic regression can be used to model the data. All models produced in this study have a smaller significance than alpha used (0.05), meaning they are compatible with the data.

Nagelkarke R^2
Nagelkarke R^2 explains the variability of independent variables explained by dependent variables. The study generated R2 at 12.1%. This is a small finding, yet answers the questions of the research.

Hosmer and Lemeshow Test
The Hosmer-Lemeshow goodness-of-fit statistic assesses the model fit. It compares the predicted values with the actual values of the dependent variable. Numbers which are greater than alpha indicate the model is suitable for further analysis since there is no significant difference between the predicted and the observed classifications. The test results generate Hosmer and Lemeshow value of 0.011, which is greater than alpha 1%.

-2 Log Likelihood
The number -2LL is also called Deviance, DEV, or D and it compares the observed probability with the predicted probability. The Log-Likelihood value from the models shows that they are compatible with the data. The test results showed a decline of 707,289 from the base model – greater than critical values table of chi square.

Classification Tables
The classification table measures the prediction accuracy of multivariate logistic regression models. This model generated a relatively higher classification capacity of 82.4%

Table 3 below presents the results of hypothesis testing using logistic regression,

TABLE 3. Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
X_1	-1.056	.315	11.228	1	.001***	.348
X_2	.000	.000	2.402	1	.121	1.000
X_3	.000	.000	1.680	1	.195	1.000
X_4	.021	.006	12.692	1	.000***	1.021
X_5	.054	.022	5.921	1	.015**	1.055
X_6	-.008	.006	1.686	1	.194	.992
X_7	.003	.004	.491	1	.483	1.003
X_8	.088	.118	.559	1	.455	1.092
X_9	.165	.041	15.919	1	.000***	1.179
Constant	-2.787	.515	29.241	1	.000***	.062

Note: ***, **, * shows *significance at 0.01, 0.05 dan 0.1*

The test results show that the variable X_1, total assets turn over (TATO) has the probability to significantly lower the enterprise value at 1%. This result is somewhat surprising, namely the increase in the asset turnover has the probability to reduce pharmaceutical firms' value during the COVID-19 pandemic. This finding is in line with the argument posited by Boasson and Boasson (2015) that in pharmaceutical firms, the highest investment is made in R&D for increased resources that are able to produce quality health products for people. Our findings confirmed that investors appreciated the pharmaceutical firms that is able to provide the best health care for their communities compared to those companies that have the highest sales yet unable to contribute to health, especially during the COVID-19 pandemic.

While variable X_4, return on assets (ROA) has a significant probability at 1% to increase enterprise value. These findings confirm that investors appreciated the firm that is able to improve its profits instead of generating high sales. These results are in line with research conducted by by Dang et

al. (2019) that found that ROA has a positive and significant impact on firm's values proxited by EV and TOBIN'S Q. However, other findings of this study suggest that in addition to ROA, all profitability proxies such as gross margin (X_2) and operating margin (X_3) do not significantly affect the firm's value.

Another variable that has the highest probability to significantly increase EV at 1% is X_9, which is a firm size. This finding suggests that the markets generally trust companies of a large size. This finding is in line with the study conducted by (Levy, 2020; Mathur et al., 2021), who claims that in the times of crisis big companies are more able to survive compared to small companies.

While variable X_5, current ratio (CR) only has a significant effect at 5%. This supports the study conducted by Mathur et al. (2021) on pharmaceutical firms in India where he discovered that if the firm is in liquid state, meaning able to fulfill its obligations, it will increase firm's worth, thus making it gain confidence from the market. Especially at pharmaceutical firms where the public trust towards the Firm's brand has to be at the high level. Inability to fulfill obligations will create firm's negative image.

Debt ratio (X_6) has no significant effect on boosting EV probability. This finding is in line with the study conducted by García-Meca and Pedro Sánchez-Ballesta (2011)which discovered that leverage does not have an effect on firm's value. In the right moment, leverage can be a factor that determines investment in a firm. This investment is expected to generate a cash flow for a firm. Sadly, during the COVID-19 pandemic debt is mounting up and the investment made is not able to generate a cash flow for the firm (Karim et al., 2021). However, this finding is inconsistent with the findings of Vintilă and Gherghina (2014) which discovered that leverage has a positive and significant effect on various sectors of companies including pharmaceutical firms listed in Bucharest Stock Exchange.

The firm's asset growth (X_8) has no significant effect on Pharmaceutical firms's value during the COVID-19 pandemic. The market is more likely to demand the companies that can harness its assets effectively and efficiently, especially during the pandemic. Asset growth is considered less important, but firm's ability to create innovation in health sector is the focus of appreciation from investors (Vishnu & Kumar Gupta, 2014).

The variable of intangible assets (X_7) has no significant effect on firm's value. This finding is in line with the findings reported by Ionita and Dinu (2021); Ramirez and Hachiya (2012) which discovered that an intangible asset is not the main asset in determining firm's value in Japan. During pandemic, firm's image is indeed important, but the extent of the firm contribute to the creation of quality and valuable products for the health sector is more important.

CONCLUSIONS

The aim of this study is to gain empirical evidence on the factors that might potentially affect enterprise value for pharmaceutical firms during the COVID-19 period. The involvement of pharmaceutical firms as the study samples is to gain a broader understanding from the companies that were not affected by the COVID-19 pandemic. Return on assets and firm size have the probability to increase EV. Pharmaceutical firms should focus on increasing profitability in order to increase value. Assets management and liquidity are important, but the final outcomes in the form of net profit is more appreciated by the investors. Firm's size represents the prestige of pharmaceutical firms, especially if they own sophisticated equipment to deliver quality drugs, vitamins and vaccines. During this pandemic, companies with these kind of technological equipment gain market's appreciation.

Further study can examine the effect of assets tangibility and the cost of research and development of pharmaceutical firms on the probability of value creation. Future research is also recommended to touch on a comparative study at the pharmaceutical firms before and during the COVID-19 pandemic so as to give a more comprehensive analysis. It is additionally suggested that further research use the data in longer periods, considering that the investment made by the pharmaceutical firms does not yield instant outcome, rather a long-term one.

The implications of this research for pharmaceutical firms are that the firm's operations should be done efficiently. Sales is not the only achievement, but net income is. Pharmaceutical firms also need to invest in more sophisticated assets that can produce quality products as the challenges in the future is enormous considering that the virus has mutated and disease is getting more varied.

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Impact of Creative Economy Policy on Micro and Small Industry Development in Indonesia

Awan Setya Dewanta
Sahabudin Sidiq
Faculty of Business and Economics,
Universitas Islam Indonesia, Indonesia

ABSTRACT

The government establishes the Indonesian Creative Economy Agency (BEKRAF) in 2015. This agency functions to formulate, determine, coordinate, and synchronizing policies in the creative economy sector. In 2016, most of creative industries are small and micro industries. Hence, Bekraf's policies also have an impact on micro and small industries as a whole.

This study aims to determine the impact of the creative industry institutions to the output and number of MSE entrepreneurs. By understanding the impact, this research intends to contributes to accelerate the output growth and MSE development with the making of new institutional policies.

The secondary data, the 2010-2019 MSE survey and robust regression methods, shows that (1) creative industry institutional policies encourage the increasing of MSE output than the number of entrepreneurs, (2) licensing, credit and partnership institutions have not contributed positively for the output and number of MSE entrepreneurs development, and (3) education, training, and certification institutions have made an inadequate contribution to the output and number of MSE entrepreneurs.

Keywords: institutional, creative industry, Micro Small Enterprise (MSE)

INTRODUCTION

One of the main challenges faces by the national industry today is the low industry competitiveness in the international market. According to the IMD World Digital Competitiveness Ranking 2020, which is released in early October 2020, Indonesia's digital competitiveness ranks 56 out of 63 countries. The technology and knowledge factors are in decline compared to 2019.

The low competitiveness has made the government seriously developing the creative industry. Other countries, such as the United Kingdom, Malaysia, China, and Singapore et al, have developed creative industries with the help of interest-free and non-collateral, training carried out by the experts from within and outside the country, and marketing facilities. It has a positive impact on the quality of the products, diverse designs, and competitive prices which create the regulation of creative industry development. Since 2015, the government establishes the Indonesian Creative Economy Agency (BEKRAF), which through Presidential Regulation Number 6 of 2015. The tasks are including of assisting the president in formulating, establishing, coordinating, and synchronizing policies in the creative economy sector.

Studies of economic institutions have not been widely carried out, although institutions play an important role in the process of economic activity. In this context, institutions provide the guarantee to each economic participants that they can conduct transactions efficiently and fairly. These economic institutions develops and evolves based on the growth and progress of the economic activity. However, these conditions sometimes do not develop institutions because market conditions are not always in perfect competition. The problem of externalities and asymmetric information are major problems in institutional economics. Both problems have caused transactions to be inefficient and unfair. In this case, it's questionable how the institutional environment of creative industries affect the performance of micro and small industrial entrepreneurs in producing the company output and the increasing of entrepreneurs number.

In the institutional economics literature, the regulatory institutions of a country are based on the "rules of the game" which its enforcement has relation to economic, political, and legislative aspects. The reliability of the political structure and a set of accountable laws, policies, and regulations are necessary for supervising and guiding the organization or entity in the economy. At the country level, Kaufmann et.al (2010) developes worldwide governance indicators (WGI), which measure six dimensions of governance starting in 1996, namely voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption. Kaufmann et al. (2018) find that countries with excessive barriers to entry and lack of high-quality

government agencies are significantly less able to create new business. Measures of institutional quality, (i.e political stability, regulatory quality, and voice and accountability) promote entrepreneurship and encourage new business activity. Weak bureaucracy is closely related to the formalization level, the effectiveness level of rule enforcement, higher levels of corruption, and the culture that emphasizes individualism and avoidance of uncertainty.

At the organizational level, Scott's (2013) approach, which may be applicable, suggests that institutions consist of cognitive, normative, and regulatory elements that, along with related activities and resources, provide stability and meaning to social life. The main interest of this framework is for understanding how institutions relate to individuals through tangible rules and sanctions, as well as the legitimacy and socio-cognitive mechanisms that influence them. Scott (2013) states that the regulatory pillar emphasizes setting rules, monitoring, and sanctioning activities, both formal and informal while the normative emphasizes behavior that is appropriate to the situation and self-interest, and cognitive-cultural emphasizes symbolic representations that guide behavior.

The influence of the institutional environment affects the performance of entrepreneurs or entrepreneurs in various countries or regions. Regulatory institutions have influenced entrepreneurial orientation in South Africa in shaping innovative, risk-taking, and proactive entrepreneurs (Urban, 2018). The variations in entrepreneurial performance and activity between countries, regions, and cities are formed by entrepreneurial ecosystem institutions, especially institutional arrangements that maximize productive entrepreneurship and reduce unproductive entrepreneurship (Audretsch et al., 2021). Using Global Entrepreneurship Monitor (GEM) data, aspects of the national institutional environment can influence the level of entrepreneurial innovation between countries (Arabiyat et al., 2019), and in Malaysia (Zamberi & Xavier, 2012). Entrepreneurship performance in Malaysia is not higher than that of other developing countries due to several important obstacles faced, which include bureaucracy and government policy inconsistency, lack of financial support, lack of entrepreneurship education at the tertiary level, and lack of entrepreneurship training in Malaysia (Zamberi & Xavier, 2012).

Some empirical evidence shows that micro and small industries rely more on the abundance of labor owned by developing countries. World Bank studies show that relative labor intensity is about 4 to 10 times higher for small firms in India, Colombia, Mexico, and the Philippines (World Bank, 1978). Labor-intensive small industries do not automatically demand large labor. Large companies sometimes incorporate a higher workforce. However, large companies have a greater tendency to import capital goods and raw materials, while small companies usually require a lower proportion of imports by using a greater amount of domestic resources.

Fischer and Reuber (2003) argue that SMEs can overcome the weakness of firm size by participating in geographically concentrated industry clusters and investing in collective technology learning processes. Cluster dynamics and inter-firm interactions occur in shoemaking and woodworking in Brazil, computers in Taiwan, and machinery in Japan. Increasing the specific capabilities of companies and SME clusters needs to be facilitated by an effective infrastructure for business development. Correspondingly, Rocha (2012) points out that the business environment, which has low entry costs, easy access to finance, and a high level of business sophistication and innovation, encourages the SME sector to be productive and competitive. The ease of licensing, which is a lesson from the Singapore case, has inspired the establishment of one-stop online platforms in various countries, such as Cambodia, Indonesia, and others. Establishing an one-stop online platform that simplifies the time and cost of business registration, which will also help to build a consistent and transparent policy environment for the growth of MSEs or creative businesses. Business registration requires various interactions with different government departments, as a consequence of the different authorities in the governing bodies of business activities. An unique Company ID allows companies to access and take advantage of online registration, which will include ordering company names, opening bank accounts, obtaining permits, registration with tax authorities, and access to banking credit.

In the aspect of capital, financial resources are the most important factor in the perceived success of small and medium enterprises in Pakistan (Jasra et al., 2011). Employment expansion performance is also influenced by the business environment of male entrepreneurs, who have higher levels of education and ease of access to banking in Ethiopia (Geleta & Talegeta, 2019). Meanwhile, the performance of Micro and Small Enterprises in Makassar and Gowa (South Sulawesi, Indonesia) is influenced by the business environment of government and internal company policies, such as capital, training, market information, marketing networks, product promotion, and institutional capacity (Munizu et al., 2016).

The use of Micro and Small Business Survey data conducted by the Central Statistics Agency in 2014, Rifin, A. (2019) shows that the education level, the number of workers, the production value, the number of companies with external finance, the companies location in Java, the male company's owners are more likely to sell their products outside their regencies. Bumiputera SMEs in Malaysia, which create job opportunities for rural and urban communities and increase national income, are affected

by weak management, failure in marketing, and difficulties in obtaining financial assistance. These conditions have limited the participation of Bumiputera entrepreneurs in international trade participation, a shortage of skilled workers, problems in marketing products in supermarkets, and a shortage of raw materials (Omar, 2015). Chittithaworn et al. show that the most significant factors influencing the success of SME businesses in Thailand are the characteristics of SMEs, customers and markets, ways of doing business, resources, and finances, and the external environment (Chittithaworn et al., 2011). Higher education institutions, as knowledge producers and educators, also have a social role to direct the development of technology and innovation as the main drivers of economic growth (Asheim et al., 2016). However, in practice, the academics factor is sometimes scarce so that the local government can play a role as the driver and the bridge for transferring the knowledge, in addition to playing the role of maintaining the rule of the game or fair transactions between economic partisipants. In Bandung, higher education institutions have played a role in the development of the cultural and creative industries carried out by the community. Meanwhile, other cities seem to pragmatically change the policies image to encourage the creative economic development without considering the local context, whereas the traditional culture industry is given a new name creative industry without learning and innovating new knowledge (Fahmi, 2016).

METHODOLOGY

When the classic assumptions are not valid, the least squares regression is not the best option. The robust regression method provides an alternative to least squares regression by requiring assumptions that are not too restrictive and not sensitive to outlier data. In general, robust regression M-estimator is done by minimizing the objective function:

$$min \sum_{i=0}^{n} \rho(e_i) = min \sum_{i=0}^{n} \rho \left(y_i - \sum_{j=0}^{k} x_{ij}\beta_j \right)$$

where :

x_{ij} : independent variable

β_j : regression coefficient estimates e

e_i : residual (error)

In this context, the growth of micro-small industry output (OMSE 1) and the number of micro and small enterprises (OMSE 2) are influenced by the quality of institutions as indicated by the ease of licensing (registration of business forms (REG), credit and loan (CRE), business difficulties (DIF) establishing partnerships (PAR), certification (SER), international certification (SER_INT), training (EDU_TRN), higher education graduate (EDU_FORM), internet use (NET), and Bekraf policy (DUMM_POL). The model can be written:

$$log\ OMSE1_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k SER_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (1)$$

$$log\ OMSE1_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k SER\_INT_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (2)$$

$$log\ OMSE1_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k EDU\_TRN_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (3)$$

$$log\ OMSE1_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k EDU\_FORM_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (4)$$

$$log\ OMSE2_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k SER_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (5)$$

$$log\ OMSE2_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k SER\_INT_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (6)$$

$$log\ OMSE2_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k EDU\_TRN_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (7)$$

$$log\ OMSE2_{ij} = \beta_0 + \beta_k REG_{ij} + \beta_k CRE_{ij} + \beta_k DIF_{ij} + \beta_k PAR_{ij} + \beta_k EDU\_FORM_{ij} + \beta_k NET_{ij} + \beta_k DUMM\_POL_{ij} + e_i \quad (8)$$

where:

i : year

j : manufacturing sector

k : number of regressors

The variables used in this study are:

Variables	Explaination
QMSE1	Revenue value on a year (Billions Rupiahs)
QMSE2	Number of entrepreneurs
REG	Manufacturing industry having form of enterprises/corporation/licensing
CRE	Number of establishments of micro and small scale manufacturing industry having bank loans
DIF	Number of establishments of micro and small scale manufacturing industry having difficulties
PAR	Number of establishments of micro and small scale manufacturing industry having partnership
SER	Entrepreneur receiving certificate owned
SER_INT	Entrepreneur receiving international certificate owned
EDU_TRN	Entrepreneur receiving guidance/ training/ counseling
EDU_FORM	Entrepreneur receiving a university graduation
NET	Number of establishments of micro and Small scale manufacturing industry using internet
DUMM_POL	The manufacturing sector has correlated creative industries after the 2015 year are 1, while others are zero

The secondary data used is a survey of micro and small industries in 2010 – 2019 by the Central Bureau of Statistics (CBS). CBS uses an employment-based definition of SMEs by which micro-enterprises are enterprises employing 1-4 people, small enterprises employing 5-19 people, medium-sized enterprises 20-99 people, and large enterprises above 100 people.

The dummy variable for Bekraf's policy is taken from the MSE sector which is directly related to the creative industry. The determination of sectoral data related to the creative industry is based on the report on the Classification Analysis of Creative Economy Activities in the 2015 Indonesian Standard Industrial Classification Codes (BPS, 2015). The conditions used are:

Creative Industries	Indonesian Standard Industrial Classification Codes (KBLI)	Manufacturing Sector
Film, Animation and Video	C 18	Printing and reproduction of recorded media.
Craft	C13,C15,C16,C17,C23, C25, C31, C32	Manufacture of textiles; of leather and related products and footwear; of products of wood, cork, bamboo, rattan (except furniture); of paper and paper products; of other non-metallic mineral products; of fabricated metal products excepts machinery and equipment; of furniture; Other manufacturing.
Culinary Arts	C10	Manufacture of food products
Music	C 18	Printing and reproduction of recorded media.
Fashion	C14, C 15	Manufacture of wearing apparels, Manufacture of leather and related products and footwear.
Penerbitan	C 18	Printing and reproduction of recorded media.

Source: BPS (2015). 2015 Indonesian Standard Industrial Classification Codes

FINDINGS

Before discussing the results of the robust regression in the model, there are several interesting things to be presented as initial findings. The presence of the Bekraf institution has not fully provided a positive externality to the MSE. First, if we assume that the college graduates are reliable human resources, then the presence of the Bekraf institution has not attracted higher education graduates to become entrepreneurs. During the research period, after the establishment of the Bekraf institution (in 2015) there has been an increase in the number of entrepreneurs graduating from college and in the MSE entrepreneurs. However, the rise do not prolong the expansion the higher education graduate

entrepreneurs and the MSE entrepreneurs number. In percentage terms, the ratio of MSE entrepreneurs who has a college degree to the total number of MSEs presents the same phenomenon. The ratio increases from 0.13% (in 2010) to 3.11% (in 2016) and then decreases to 2.67% (in 2019). This phenomenon has shown that Bekraf institutions have not encouraged the desire to become MSE entrepreneurs, although they may prefer to become creative economy entrepreneurs even though they are also small in scale.

FIGURE 1: Comparison Between the Number of MSE Entrepreneur Who Graduates from University, and the MSE Entrepreneur
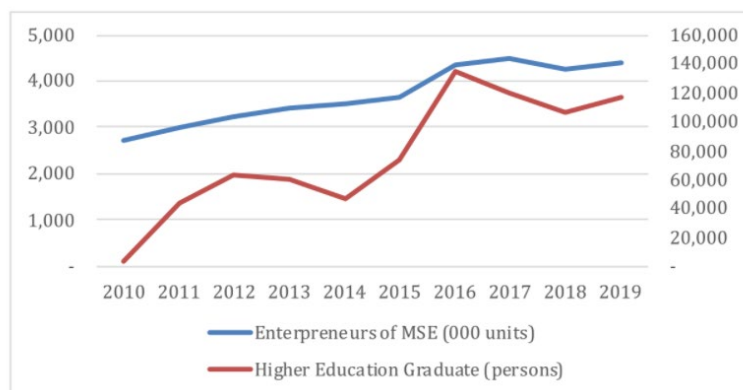
Source: BPS, Survey on micro and small industries.

Second, the presence of the Bekraf institution has not yet had a positive (and sustainable) effect on reducing the business difficulties faced by MSE. In figure 2, at the beginning of Bekraf's presence, the number of entrepreneurs experiencing difficulties showed a drastic decline. However, the positive effect did not last long. Prior to the COVID-19 pandemic, the difficulty level of MSE entrepreneurs has increased again and been closing the gap. It means that there are fewer MSE owners who do not have problems. Furthermore, the effect of Bekraf's presence can be explained further through table 1 and table 2 which are the results of robust regression.

Figure 2: Comparison of the Number of MSE, Business Difficulties, and Credit/ Loans
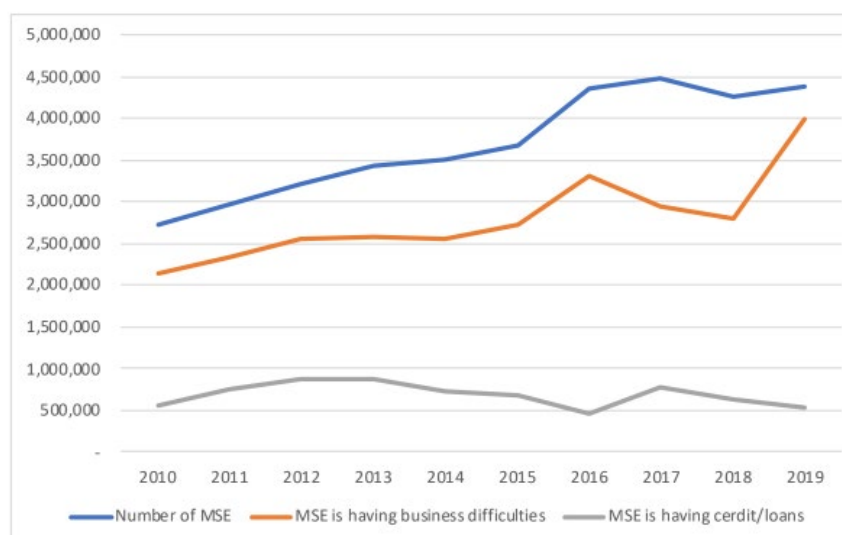
Source: BPS, Survey on micro and small industries.

The results of robust regression in this research model can be presented briefly using table 1 for the dependent variable output MSE (OMSE 1) and table 2 for the dependent variable number of entrepreneurs (OMSE2). In table 1, the constant, the credit variable (CRE), and the MSE entrepreneur difficulty variable (DIF) show a high significance for output growth but have a coefficient direction that is different from expectations. Credit institutions should provide the impetus for the progress of MSE output, and the opposite has happened. Likewise, the difficulty factor of the rulers should reduce output, instead of increase the output. This problem will be discussed further in the discussion. Meanwhile, the creative industry policy, which is the focus of this research, shows the expected significant and positive

contribution. However, education and training factors have not contributed to MSE output, and also licensing factors (REG) have not contributed significantly.

TABLE 1: Estimation of Bekraf Institutional Influence on MSE Output Performance in 2010-2019

Independent Variables	Dependent Variable: LOG(OMSE1)			
	(1)	(2)	(4)	(5)
C	1.6571 ***	1.7495 ***	1.7858 ***	1.8298 ***
REG	-0.0011 *	-0.0012 *	-0.0009	-0.0004
CRE	-0.0016 ***	-0.0017 ***	-0.0017 ***	-0.0018 ***
DIF	0.0049 ***	0.0046 ***	0.0048 ***	0.0050 ***
PAR	0.0004	0.0012	0.0006	0.0007
SER	0.0003			
SER_INT		-0.0003		
EDU_TRN			-0.0004	
EDU_FORM				-0.0008 ***
NET	0.0002	-0.0002	0.0001	-0.0001 ***
DUMM_POL	0.6288 ***	0.7517 ***	0.5799 ***	0.5101
R-squared	0.5563	0.7381	0.6874	0.5500
Rn-squared statistic	276.9852	245.9338	369.4971	246.8521
Prob (Rn-squared stat.)	0.000	0.0000	0.0000	0.0000

Source: processed data.
*** = significant at 1%
** = significant at 5%
* = significant at 10%

In table 2, the constant, the credit variable (CRE), the MSE entrepreneur difficulty variable (DIF) also shows a high significance to the number of entrepreneurs but has a coefficient direction that is not in line with expectations. Credit institutions should have facilitated the addition of MSE entrepreneurs, but the other way around happened. Likewise, the difficulty factor of entrepreneurs should reduce the number of entrepreneurs, but it encourages the increase of entrepreneurs instead. This problem will be discussed further in the discussion. Meanwhile, the creative industry policy, carried out by Bekraf, shows the expected significant and positive contribution. Education and training, factors formal education and training have contributed but not as expected. Thus, the licensing factor (REG) has also made a negative contribution.

TABLE 2: Estimation of Bekraf Institutional Influence on the Performance of the Number of MSE Entrepreneurs in 2010-2019

Independent Variables	Dependent Variable: LOG(OMSE2)			
	(5)	(6)	(7)	(8)
C	3.5091 ***	3.2847 ***	3.9570 ***	0.0000
REG	-0.0012 *	-0.0005 *	-0.0014 **	-0.0004
CRE	-0.0014 **	-0.0019 ***	-0.0018 ***	-0.0018 ***
DIF	0.0059 ***	0.0060 ***	0.0056 ***	0.0061 ***
PAR	-0.0002	0.0011	0.0007	-0.0001
SER	-0.0001			
SER_INT		0.0009 *		
EDU_TRN			-0.0018 ***	
EDU_FORM				-0.0018 ***
NET	-0.0017 **	-0.0016 **	-0.0020 ***	-0.0017 ***
DUMM_POL	0.5772 **	0.6568 ***	0.2479	0.3715
R-squared	0.6903	0.7191	0.6874	0.7167
Rn-squared statistic	250.2100	294.0855	369.4971	293.8443
Prob (Rn-squared stat.)	0.000	0.0000	0.0000	0.0000

Source: processed data.
*** = significant at 1%
** = significant at 5%
* = significant at 10%

DISCUSSION

Based on survey data for micro and small industries in 2010 – 2019, the estimation results of the Robust Least Squares model (with Method: M-estimation) can be shown in tables 1 and 2. Table 1 shows the estimation of institutional performance in influencing the output value of micro and small industries. The coefficient of the constant shows a significant positive value with a value of 1.657 – 1.830. This issue shows that, on autopilot or without government assistance, the output growth of micro and small industries shows a fantastic development during 2010-2019 and becomes the strength of the National economy. However, government policies actually slow down the development of micro and small industries, while the government policies favor large industry players to only pursue high economic growth.

The resilience of entrepreneurs is also evidenced by difficulties (raw materials, marketing, capital, energy, and competition), which were felt by 91% of MSE players (in 2019), still being able to drive MSE output growth by 0.04% to 0.12%. Meanwhile, the partnership initiates by the government has not contributed as expected. The resilience of MSE entrepreneurs is also demonstrated by MSE's ability to survive the 1997 crisis (van Diermen, 1997), the case of Yogyakarta City tourism (Cheer & Lew, 2018), and Smaller firms have a higher chance to operate longer due to their flexibility (Ilyas, 2017).

In the model, credit institutions should encourage the growth of micro and small industries but slow down the increase in the output of micro and small industries (MSE). Every 1% increase in credit will slow down output growth by 0.1%. This low influence is also caused by the low accession of micro and small industries to credit. In 2010, MSE entrepreneurs make loans to banking institutions by 4% and increased to 6% in 2019. Overall, credit institutions have not contributed to MSE output and are a classic problem for MSE in Indonesia (Seibel, 2020).

In the midst of the lack of government institutional support, the creative industry development policy, which later forms the creative industry formal institution (Bekraf) in 2015, has had a positive impact on the MSE development. Every 1% increase in creative industry development has driven MSE growth by 51% to 73%. The driving factors for creative industry institutions bring a fresh air to the development of micro and small industries in Indonesia. This fact is shown by the linkage of creative industries to micro and small industries. For example, the creative handicraft industry, which is the top three creative industries after culinary and fashion, has links to C13 (Manufacture of textiles), C15 (Manufacture of leather and related products and footwear), C16 (Manufacture of products of wood, cork, bamboo, rattan (except furniture), C 17 (Manufacture of paper and paper products), C 23 (Manufacture of other non-metallic mineral products), C 25 (Manufacture of fabricated metal products except machinery and equipment), C 31 (Manufacture of furniture), and C 32 (Other manufacturing).

The success of Bekraf's institutional support for MSE has focused on the output growth than the increasing number of entrepreneurs. In table 2, Bekraf institutions have succeeded in encouraging micro and small industries by 58% - 66%. It is lower than the creative industry institutions that encourage output growth. This condition is to be expected because the Bekraf institution facilitates entrepreneurs to obtain a product certification. In the model, every 1% increase in international certification has driven the increasing number of new entrepreneurs by 0.09%.

In table 1, estimates of formal education and training institutions have not contributed to output growth, meanwhile, in table 2, the estimation from the formal education and training institutions have surprisingly decreasing the entrepreneurs number. The situation calls for attention and evaluation for policymakers to answer why the graduates from formal business schools are reluctant to open new businesses. If we put aside the form or the study material from the business learning, formal schools, colleges, or training, it underlines the difficulty that being an entrepreneur in Indonesia should not just have some "business knowledge" because the business on a micro and small scale in Indonesia is getting more and more difficult. This fact is shown from the survey data of micro and small industries. In 2010, 78% of MSE entrepreneurs states that they had difficulty doing business, and ten years later (in 2019), survey data shows 91% of MSE entrepreneurs had difficulties. When related to the number of MSE entrepreneurs, which increased from 2.73 million (in 2010) to 4.38 (in 2019), there is an increase in MSE entrepreneurs who experience difficulties as much as 8.67%. The condition discourages the graduates from formal colleges and training to open new businesses.

Another surprising finding is regarding the internet, the use of communication technology. Table 1 and 2 show that the increase in internet usage has not affected the increase in MSE output (table 1) and slowed 0.16% - 0.20% MSE business growth (table 2). The finding contradicts the general opinion about how the increase use of internet technology should expand the market and open up more new business opportunities. The e-commerce business does not seen to use the internet to connect with another e-commerce business, while it still tends to be used as an e-commerce business to consumers. In the creative industry case, Dewanta (2019) shows that the scale of business in Indonesia does not make a difference

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in the contribution of the use of e-commerce. In other words, the internet technology is only used to sell products and becomes the product resellers.

The credit institutions are obligated to encourage new entrepreneurs, but it slows down the growth of micro and small industrial entrepreneurs based on the number of MSE entrepreneurs as the dependent variable. Every 1% increase in credit will slow down new business growth by 0.14% - 0.19%. Likewise, permit registration. Business license registration also slows MSE business openings where every 1% additional business registration decreases 0.12% - 0.14% of new business openings. This issue is in line with Bhinekawati's research (2016). Bhinekawati stated that Indonesia and Australia had started the "one-stop-shop for a license" initiative almost at the same time, in 2006 and 2008 respectively. The results were different and a part of Australia's advancement of "one-stop-shop for a license" experience should be applied to support small and medium enterprises in Indonesia. Likewise, the partnership initiated by the government has not contributed to the addition of new MSE business openings.

On the other hand, difficulties (raw materials, marketing, capital, energy, and competition), experienced by MSE participants (in 2019), drive the growth of MSE entrepreneurs by 0.6%. It should be interpreted as the increasing number of MSE entrepreneurs does not come from the entrepreneurs who have higher education. These MSE entrepreneurs come from the formal vocational school and diplomas rather than universities. This finding is supported by the results of the 2018 Survey of Entrepreneurs and MMSES in Indonesia conducted by the Asia Pacific Foundation of Canada. The survey results show that more than 70% of entrepreneurs are high school graduates, while 15% are university graduates and 2% have international experience. The same thing is also stated by Amalia & von Korflesch (2021). Amalia & von Korflesch state that entrepreneurship education in Indonesian universities has not been effective and the distribution of entrepreneurship education programs has not evenly distributed. Apart from centralization, the education system is not designed to support schools and graduates to become active entrepreneurs. The cultural belief also plays a role that the young rural students has told that being entrepreneurs is not a promising and stable job, compare to being being a civil servant or company employee (Amalia & Korflesch, 2021).

CONCLUSION

The study finds that (1) creative industry institutional policies (Bekraf) encourage the increasing of MSE output than the number of entrepreneurs, (2) licensing, credit and partnership institutions have not contributed positively for the output and number of MSE entrepreneurs development, and (3) education, training, and certification institutions have made an inadequate contribution to the output and number of MSE entrepreneurs.

During the COVID-19 pandemic, the resilience of MSE in Indonesia and other countries is again being tested. Based on the 2020 MSE survey, Indonesia's MSE production decrease by 17.63%. This decrease indicates a reduction in production or business closures. Thus, an institutional approach by reducing the transaction costs may be needed. The transactions can be broken down into production and coordination costs. In this context, coordination costs including governance transaction costs that derived from processing the information to coordinate the production and distribution process by the people and machines.

As the performance of information and communication technology continues to improve, this should result in the cost per unit of coordination transactions being close to zero. With low-cost coordinated transactions, interconnected networks, and strategically appropriate deployment and easily accessible databases, there should be a proportional shift in economic activity to low-cost electronic communication channels (especially the Internet) for conducting corporate business. Large companies can do this, but MSE needs help designing innovative coordination transactions that fit the new MSE business needs.

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Kesan Persepsi Pekerja Asing Terhadap Tempoh Bekerja di Malaysia: Kajian dalam Subsektor Perkhimatan Terpilih

The Effect of Foreign Workers' Perceptions on Working Periods in Malaysia: A Study in the Services Sub-Sector

Noorasiah Sulaiman M
Mohamad Nor Asyraf Zulkfli
Lai Wei Sieng
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRAK

Kajian ini menganalisis kesan persepsi pekerja asing terhadap jangkaan tempoh bekerja mereka di Malaysia. Pandangan buruh asing dikategorikan kepada empat, iaitu aspek majikan, undang-undang dan peraturan; sosial dan kehidupan; dan persekitaran di tempat kerja. Kajian ini melibatkan 844 orang pekerja asing berkemahiran rendah dalam subsektor perkhidmatan terpilih. Objektif kajian ini ialah menganalisis pandangan pekerja asing berkemahiran rendah terhadap keempat-empat aspek tersebut menerusi model persamaan berstruktur (SEM) menggunakan perisian SmartPLS. Dapatan kajian menunjukkan kesemua aspek kecuali aspek sosial dan kehidupan secara positif mempengaruhi tempoh bekerja pekerja asing di negara ini. Ini meliputi aspek pandngan terhadap majikan, undang-undang dan peraturan dan persekitaran tempat kerja. Berasaskan dapatan kajian, dapat disimpulkan bahawa pekerja asing ingin bekerja lebih lama di negara ini disebabkan persepsi mereka terhadap aspek pekerjaan adalah positif dan signifikan.

Kata kunci: Pekerja asing; persepsi; tempoh bekerja; Model Persamaan Berstruktur (SEM)

ABSTRACT

This study analyzes the effects of foreign workers' perception on their working periods expectation in Malaysia. The perception of foreign labor is divided into four categories, i.e., perception of employers, law and regulation, life and social, and the workplace environment. Based on the sample survey data, this study involves 844 foreign workers from five zoning areas: south, north, central, east, and Sabah and Sarawak. The objective of this study is to analyze the low-skilled foreign workers' perception on these four aspects using the structural equation modeling (SEM) by SmartPLS. The findings show that all aspects of the perception except life and social positively influence the work of duration among foreign workers in Malaysia. These are perceptions of employers, regulations, laws, and the workplace. Based on these findings, it can be concluded that foreign workers choose to work longer in the country due to their perceptions of the employment aspects are positive and significant.

Keywords: Foreign worker; perception; work duration; structural equation modeling (SEM)

PENGENALAN

Pergerakan tenaga kerja yang berlaku merentasi sempadan sesebuah negara dirujuk sebagai migrasi pekerja di peringkat antarabangsa (ILO, 1999). Pekerja asing adalah pekerja yang bermigrasi atau berhijrah dari negara asal ke negara lain sebagai negara penerima dengan tujuan untuk bekerja bagi suatu tempoh tertentu (ILO, 1999). Menurut Organisasi Buruh Antarabangsa (ILO, 2018), sejumlah 164 juta pekerja migran dianggarkan telah bermigrasi di seluruh dunia. Berdasarkan gender, golongan lelaki mendominasi pekerja migran dengan jumlah 96 juta orang, sementara 68 juta orang adalah wanita. Apa yang menarik ialah statistik daripada ILO (2018) melaporkan pekerja migran wanita yang bermigrasi ke luar negara adalah lebih tinggi berbanding pekerja lelaki bagi negara Asia, iaitu bagi negara Indonesia, Filipina dan Sri Lanka. Ini disebabkan golongan wanita lebih ramai yang mendapat peluang pekerjaan dalam pelbagai sektor seperti perhotelan, perkhidmatan domestik dan pembuatan.

Justeru itu, Malaysia tidak terkecuali menjadi destinasi paling popular bagi pekerja asing, khususnya dalam kalangan negara serantau. Dianggarkan daripada 25 juta pekerja asing di seluruh dunia,

sejumlah 2.2 juta (8.8%) adalah migran yang bekerja di Malaysia, sekaligus mencatatkan negara yang menerima pekerja asing dengan jumlah tertinggi pada 2017 (IOM, 2019). Bagi tempoh 2010 hingga 2017, jumlah pekerja asing di negara ini dianggarkan meningkat daripada 1.7 juta kepada 2.2 juta orang (IOM, 2019). Ini menunjukkan Malaysia menjadi destinasi kunjungan pekerja asing yang tinggi kerana terletak pada kedudukan yang strategik. Negara asal pekerja asing yang bekerja di negara ini terdiri daripada Indonesia, Nepal, Bangladesh, India, Myanmar, Thailand dan Filipina.

Tidak dinafikan perkembangan pesat sektor ekonomi di negara ini adalah faktor utama kepada peningkatan kemasukan buruh asing ke dalam pasaran buruh negara. Dianggarkan sehingga tahun 2015, pekerja asing mengisi sejumlah 16 peratus tenaga kerja daripada jumlah keseluruhan gunatenaga dan pada 2019, sejumlah 15 peratus dengan anggaran 2.3 juta orang (Kementerian Dalam Negeri, 2019). Tidak dinafikan tenaga kerja mereka amat diperlukan di negara ini dalam mengisi peluang pekerjaan berkemahiran rendah di semua sektor utama ekonomi meliputi sektor pertanian, pembuatan dan perkhidmatan. Oleh kerana struktur pengeluaran sektor-sektor ekonomi masih berasaskan kepada intensif tenaga buruh, maka tenaga kerja mereka amat diperlukan, khususnya dalam mengisi pekerjaan melibatkan 3D (*difficult, dirty, dangerous*) (Rahim et al. 2019).

Di samping itu, peluang pekerjaan tenaga kerja berkemahiran rendah sememangnya kurang diminati oleh pekerja tempatan (Borjas, 1994; Fry, 1996) menyebabkan pekerja asing sering mendapat permintaan daripada pihak majikan. Kajian Marjuki (2018) menyatakan sikap pekerja asing yang tidak memilih kerja dan sanggup menerima upah yang lebih rendah menyebabkan majikan lebih gemar menggaji pekerja asing. Kajian Ximena et al. (2015) turut menyokong bahawa negara masih bergantung kepada tenaga kerja asing, terutama bagi sektor ekonomi yang berintensif tenaga buruh. Justeru itu, penglibatan pekerja asing tidak menyekat peluang pekerjaan pekerja tempatan disebabkan penglibatan mereka adalah sebagai pelengkap bagi pasaran buruh negara. Penglibatan mereka dapat mewujudkan peluang pekerjaan kepada pekerja tempatan di setiap sektor ekonomi. Dianggarkan sejumlah 600 pekerjaan sepenuh masa dapat diwujudkan untuk pekerja tempatan bagi setiap 1000 kemasukan tenaga kerja asing di negara (ILO 2015).

Berasaskan literatur, kajian impak buruh asing kepada negara penerima banyak dibuat oleh para pengkaji. Sumbangan pekerja asing terhadap produktiviti sektor ekonomi, walaupun secara relatifnya kecil namun positif dan signifikan. Buruh asing menyumbang kepada pertumbuhan ekonomi secara keseluruhan bagi jangka panjang (Thangavelu, 2012; Ismail & Yuliyusman, 2014; Esther et al. 2017; Tipayaali, 2020). Di Malaysia khususnya, kajian kesan buruh asing meliputi kajian terhadap tingkat produktiviti (Jacob, 2018; Mohd Palel et al. 2016) dan kesan terhadap tingkat upah buruh tempatan (Rahman et al. 2014; Awad & Yussof, 2019). Kesemua kajian tersebut berasaskan sumber data sekunder dan membuat analisis berdasarkan sektor dan firma.

Justeru itu, kajian terhadap buruh asing sendiri amat kurang dibuat. Ini disebabkan kedatangan buruh asing sering dilihat sebagai sesuatu yang membimbangkan dalam kalangan pekerja tempatan (Huber et al. 2010). Oleh itu, pelbagai isu berkaitan buruh asing sering mendapat perhatian. Walaupun ILO menyatakan bahawa setiap pekerja harus diberi hak yang sama rata dan adil meliputi aspek layanan, keselamatan, upah dan seumpamanya (ILO, 2011), namun pelbagai isu berkaitan pekerja asing sering mendapat perhatian. Kajian terhadap pekerja asing sebelum ini banyak tertumpu kepada aspek berhubung isu yang ditimbulkan daripada penglibatan pekerja asing di negara ini. Antaranya meliputi aspek pekerjaan dan kebajikan (Jasni & Othman, 2014), aspek diskriminasi (Abdul Razak & Nordin, 2018; Abdul Wahab& Nik Mahmod (2020), aspek perundangan dan keselamatan (Rahim et al. 2019; Hassan, 2015; Sarifin & Sukimi, 2014), aspek sosial (Rahim et al. 2019; Saiman & Jemon (2014) dan eksploitasi pekerja asing (Marjuki, 2018), dan aspek perlindungan dan hak pekerja (Latif et al. 2016).

Sebaliknya, kajian ini berbeza dengan kajian terdahulu kerana mengkaji aspek penglibatan mereka sama ada ingin bekerja lebih lama di negara ini atau pulang ke negara asal. Justeru itu, bagi mengetahui apakah pilihan mereka, kajian ini mengkaji beberapa aspek tertentu yang dijangka mempunyai hubungan dengan tempoh mereka bekerja, iaitu aspek pekerjaan, perundangan, social dan kehidupan. Selanjutnya, kajian ini fokus kepada subsektor perkhidmatan disebabkan sektor ini menunjukkan keperluan terhadap tenaga kerja yang semakin meningkat (Lelchumanan et al. (2019). Objektif kajian ini ialah mengkaji hubungan antara persepsi mereka terhadap aspek pekerjaan (majikan dan persekitaran kerja), undang-undang dan peraturan imigresen, sosial dan kehidupan dengan tempoh bekerja mereka di negara ini.

Kajian ini dijangka berupaya memberi sumbangan dalam pengkajian berhubung pekerja asing di peringkat global dan juga nasional. Pertama, kajian ini menyumbang dari aspek literatur berhubung pandangan pekerja asing terhadap aspek pekerjaan (majikan dan persekitaran kerja), undang-undang dan social. Kedua, kajian ini menganalisis hubungan antara tempoh bekerja pekerja asing di negara ini dengan aspek-aspek yang dinyatakan menggunakan analisis Kaedah Persamaan Berstuktur (*Structural Equation Modeling*: SEM). Berasaskan data soal selidik, kajian ini mengkaji buruh asing dari perspektif individu

sebagai pekerja dan membuat analisis secara mikro. Ketiga, dapatan kajian ini berupaya memberi jawapan kepada persoalan terhadap faktor-faktor yang mempengaruhi pekerja asing untuk bekerja lebih lama di negara ini. Keempat, kajian ini fokus kepada skop yang berlainan dengan mengkaji subsektor perkhidmatan terpilih sahaja.

Perbincangan dalam penulisan ini distruktur kepada lima bahagian. Seterusnya, bahagian kedua membincangkan kajian literatur mengenai migrasi buruh asing dan penglibatan mereka dalam konteks pekerjaan (majikan dan persekitaran kerja), perundangan dan sosial. Bahagian ketiga menghuraikan sumber data, pembinaan soal selidik, teknik persampelan, dan model kajian. Bahagian keempat mengemukakan dapatan kajian dan perbincangan mengenainya terbahagi kepada tiga, iaitu huraian deskriptif berhubung profil pekerja asing, ujian kesahan dan kebolehpercaya dan keputusan hipotesis. Bahagian akhir ialah kesimpulan dan cadangan.

KAJIAN LEPAS

Migrasi Buruh Asing

Menurut Borjas (1994) terdapat pelbagai faktor yang mendorong seseorang untuk bermigrasi. Faktor-faktor tersebut meliputi faktor penolak dan fak faktor penarik (push and pull faktor). Namun demikian, faktor penarik lebih mengatasi dalam mempengaruhi seseorang migran untuk berhijrah, khususnya penghijrahan yang merentasi sempadan negara (Borjas, 1989).

Kajian lepas menjelaskan antara sebab buruh bermigrasi ialah kadar upah yang lebih tinggi di negara penerima pekerja asing (Ahad 2015; Tuccio, 2017). Pekerja asing berhijrah ke sesebuah negara bertujuan untuk mendapat pekerjaan yang lebih baik (Karemera et al. 2000) bagi menyara kehidupan keluarga mereka di negara asal. Tambahan pula wujud kadar pengangguran yang tinggi dan peluang pekerjaan yang amat sedikit di negara asal (Ahad 2015; Jajri and Ismail 2014).

Justeru itu, kedatangan pekerja asing ke sesebuah negara tidak menyekat peluang pekerjaan penduduk tempatan, malah kemasukan tenaga kerja mereka dapat meningkatkan lagi sektor pengeluaran negara (Esther et al. 2017). Penghijrahan mereka lebih memberangsangkan apabila negara penerima migran mengalami masalah kekurangan tenaga kerja untuk mengisi pekerjaan di sektor-sektor ekonomi negara tersebut (ILO 2018). Namun begitu, kemasukan mereka perlu dikawal supaya tidak mendatangkan kesan negatif kepada negara penerima (Rahman et al. 2014). Antaranya impak terhadap tingkat produktiviti (Mohd Palel et al. 2016) dan upah yang rendah (Awad & Yussof, 2019).

Undang-Undang dan Peraturan

Undang-undang, khususnya mengenai dasar, prosedur dan syarat-syarat pengambilan dan penggajian pekerja asing bertujuan mempertingkatkan keselamatan dan perlindungan mereka. Jarak yang berdekatan (Kim and Cohen (2010) adalah faktor utama yang mempengaruhi corak migrasi buruh antarabangsa, khususnya dalam kalangan negara berdekatan. Penghijrahan pekerja asing dari negara yang berdekatan dari segi sempadan geografi menjadi penentu kepada migrasi buruh (Tuccio (2017). Penghijrahan pekerja asing di negara ini tertumpu dalam kalangan negara ASEAN dan negara Asia selatan (Srivastava and Pandey 2017). Selain itu, persepsi pekerja asing terhadap negara destinasi mengenai undang-undang imigresen dan tahap keselamatan adalah antara faktor utama yang menentukan mereka berhijrah ke sesebuah negara (IOM 2017).

Aspek Majikan

Di negara ini, pekerja asing diakui hak mereka untuk mencari nafkah sebagai hak asasi (Jaafar et al. 2017). Di bawah Akta Pampasan Pekerja 1952, majikan bertanggungjawab dalam mematuhi syarat-syarat pengambilan dan penggajian pekerja asing (Kementerian Sumber Manusia, 2017). Ini bertujuan memberi perlindungan keselamatan kepada pekerja asing yang bekerja di bawah organisasi mereka. Antaranya majikan bertanggungjawab dalam menyediakan perlindungan insurans kepada setiap pekerja asing (Perkeso, 2020) termasuk rawatan perubatan, pemeriksaan kesihatan dan kandungan, kemalangan di tempat kerja, kematian dan manfaat kewangan. Pekerja asing juga berhak mendapat cuti, gaji dan imbuhan yang setimpal seperti pekerja tempatan (Kementerian Sumber Manusia, 2017).

Tingkat upah di negara destinasi menjadi penentu yang mempengaruhi pekerja asing untuk bekerja lebih lama (Ahad 2015) kerana mereka lazimnya menghantar wang pulang ke negara asal. Namun kajian mendapati bahawa kebanyakan pekerja asing tidak begitu mementingkan soal gaji yang diterima

dan sesetengah daripada mereka juga sanggup bekerja lebih masa meskipun kadar upah yang diterima adalah lebih rendah daripada yang sepatutnya (Rahmah et al. 2017).

Selain itu, sikap majikan yang sentiasa memberi motivasi kepada pekerja amat mempengaruhi seseorang untuk terus bekerja (Herzberg et al. 2017). Di samping itu, aspek pengurusan seperti gaji dan hubungan dengan majikan antara faktor yang menyumbang kepada kepuasan bekerja bagi pekerja (Herzberg et al. 2017). Majikan berpendapat bahawa mereka menggaji pekerja asing disebabkan pekerja tempatan enggan atau kurang melibatkan diri dalam pekerjaan yang sukar dan berbahaya (Mohamed et al. 2019). Tambahan pula sikap pekerja asing yang positif dan tidak banyak kerenah dalam melakukan kerja dan boleh bekerja lebih masa menyebabkan majikan gemar menggaji pekerja asing berbanding pekerja tempatan.

Sementara itu, kebanyakan majikan yang menggaji pekerja asing amat berpuas hati dengan kualiti kerja meskipun ada segelintir yang kurang memuaskan (Othman et al. 2012). Secara langsung, keadaan ini mewujudkan hubungan yang saling memerlukan antara majikan dan pekerja asing di mana majikan ingin terus mengekalkan pekerja dan pekerja pula ingin terus bekerja.

Walau bagaimanapun tidak dinafikan wujud diskriminasi terhadap pekerja asing yang disebabkan oleh pelbagai faktor. Antaranya perbezaan negara, budaya dan stigma terhadap sesuatu perkara. Diskriminasi wujud apabila hak dan penyertaan seseorang di tempat kerja dinafikan, misalnya perbezaaan gaji dan upah, pengasingan, kategori pekerjaan dan sebagainya.

Sosial dan Kehidupan

Aspek sosial dan kehidupan merupakan antara aspek penting yang perlu difahami oleh pekerja asing sebelum berhijrah ke sesebuah negara. Pekerja asing mendapat pendedahan mengenai peluang pekerjaan, aspek pekerjaan, kos sara hidup dan cara hidup di negara yang ingin di hijrah diperoleh secara formal dan tidak formal. Ini berlaku khususnya dalam kalangan pekerja asing dari negara Indonesia yang memperoleh maklumat daripada sumber tidak formal seperti rakan, ahli keluarga, dan jiran tetangga yang sedang dan pernah bekerja di Malaysia (Sarifin & Sukimi 2014).

Pekerja asing dari Indonesia misalnya lebih mudah datang ke negara ini disebabkan faktor persamaan mempunyai nilai dan budaya, agama dan bahasa yang serupa (Tuccio 2017). Selain itu, persepsi pekerja migran terhadap negara destinasi dari segi kepelbagaian budaya, toleransi masyarakat antara factor yang menentukan pekerja asing berhijrah ke sesebuah negara (IOM 2017). Oleh yang demikian, kepelbagaian bangsa dan kaum di negara ini yang memiliki pelbagai budaya turut menyumbang kepada bilangan kemasukan pekerja asing yang kian bertambah di negara ini. Faktor ini dijangka mempengaruhi pekerja asing untuk bekerja lebih lama di negara ini, walaupun kajian mendapati wujud diskriminasi terhadap pekerja asing berhubung aspek keselamatan sosial yang diamalkan di negara ini (Saiman & Jemon, 2014).

Persekitaran di Tempat Kerja

Persekitaran kerja yang kondusif dapat mewujudkan suasana bekerja yang positif. Oleh itu, suasana persekitaran kerja yang harmoni secara positif dapat mempengaruhi emosi pekerja untuk lebih rajin bekerja (Weis & Cropanzano, 1996). Di samping mewujudkan kerjasama yang baik dalam kalangan pekerja, sesebuah organisasi dapat berfungsi dengan baik (Ismail & Poon, 2018).

Kajian menunjukkan bahawa suasana persekitaran kerja yang harmoni mampu menjadikan pekerja untuk setia atau bekerja lebih lama dalam sesebuah organisasi (Shahid & Azhar, 2013). Sesebuah organisasi boleh berdepan dengan kehilangan pekerja yang ramai sekiranya mempunyai suasana persekitaran kerja yang tidak harmoni (Saipol, Shah & Panatik, 2018). Ini menyebabkan berlaku kadar pusing-ganti pekerja yang tinggi dan akhirnya boleh menjejaskan prestasi organisasi/firma.

DATA DAN METODOLOGI KAJIAN

Sumber Data

Kajian ini menggunakan data soal selidik yang telah diedarkan di seluruh negeri di Malaysia. Kaedah pemilihan sampel dibuat berasaskan teknik persampelan rawak berstrata (*stratified random sampling technique*). Sebanyak 961 borang soal selidik yang dikembalikan namun selepas dibuat proses pembersihan data sejumlah 87.83% sahaja yang digunakan bagi tujuan analisis. Jumlah ini mewakili 844 responden berdasarkan ciri-ciri yang dikehendaki dalam kajian ini, iaitu pekerja asing yang bekerja dalam sektor perkhidmatan.

Bahagian ini membincangkan analisis data berkaitan latar belakang atau maklumat demografi responden. Perbincangan mengenai latar belakang responden meliputi maklumat negara asal, subsektor pekerjaan, jantina, umur, tahap pendidikan, status perkahwinan dan jenis permit kerja.

Responden bagi kajian ini melibatkan pekerja asing yang bekerja dalam sektor pekhidmatan di Malaysia Subsektor perkhidmatan dipilih kerana sektor ini menunjukkan keperluan tenaga kerja yang kian meningkat berbanding sektor ekonomi yang lain (Lelchumanan et al. (2019). Justeru itu, sektor perkhidmatan menunjukkan trend peningkatan bagi kemasukan buruh asing yang meningkat dari masa ke masa. Sepanjang tempoh 2001-2012, pekerja asing mendominasi pekerjaan tenaga berkemahiran rendah di sektor perkhidmatan, sementara bagi tempoh 2013-2017, sektor pekhidmatan mencatatkan pekerja asing adalah yang kedua tertinggi selepas sektor pertanian (Banci Tenaga Buruh, 2001-2017).

Soal selidik yang diedarkan di seluruh negeri di Malaysia telah dikategorikan mengikut zon kepada zon selatan, zon tengah, zon timur, zon utara, dan Sabah serta Sarawak. Zon selatan diwakili oleh negeri Johor, Melaka dan Negeri Sembilan. Zon tengah meliputi negeri Selangor, W.P. Putrajaya dan W.P. Kuala Lumpur. Seterusnya, zon utara meliputi Pulau Pinang, Perak, dan Kedah. Zon timur di wakili oleh negeri Pahang, Kelantan dan Terengganu dan Zon Sabah dan Sarawak.

Pembinaan Soal Selidik

Borang soal selidik yang digunakan dalam kajian ini terbahagi kepada lapan bahagian. Bahagian pertama mengandungi maklumat latar belakang responden, iaitu pekerja asing. Maklumat tersebut meliputi pembolehubah jantina, umur, negara asal, umur, status perkahwinan, tahap pendidikan dan jenis dokumen yang digunakan untuk bekerja di Malaysia. Bahagian kedua mengandungi maklumat berhubung aspek pekerjaan responden.

Bahagian ketiga soal selidik fokus kepada faktor-faktor yang mempengaruhi mereka asing bekerja di negara ini dan perancangan mereka berhubung aspek pekerjaan dalam tempoh terdekat. Bahagian keempat adalah berkaitan persepsi mereka terhadap aspek-aspek yang menjadi fokus bagi kajian ini. Ini meliputi aspek undang-undang dan peraturan berkaitan penggajian dan pekerjaan buruh asing di negara ini. Selain itu, aspek berkaitan persepsi mereka terhadap majikan, sosial dan kehidupan serta persekitaran di tempat kerja. Data bagi kajian ini menggunakan skala likert daripada 1 hingga 7 bagi mengukur tahap kebersetujuan responden terhadap soalan-soalan yang dikemukakan.

Hipotesis

Rajah 1 menunjukkan model konsep yang menerangkan hubungan antara pandangan buruh asing sebagai pemboleh ubah bebas dalam mempengaruhi aspek pekerjaan dan sosial. Hubungan antara kedua-duanya berlaku secara langsung, iaitu pandangan dan persepsi pekerja asing terhadap aspek-aspek yang terdiri daripada aspek majikan, undang-undang dan peraturan, aspek sosial dan kehidupan dan persekitaran tempat kerja.

RAJAH 1: Model struktur
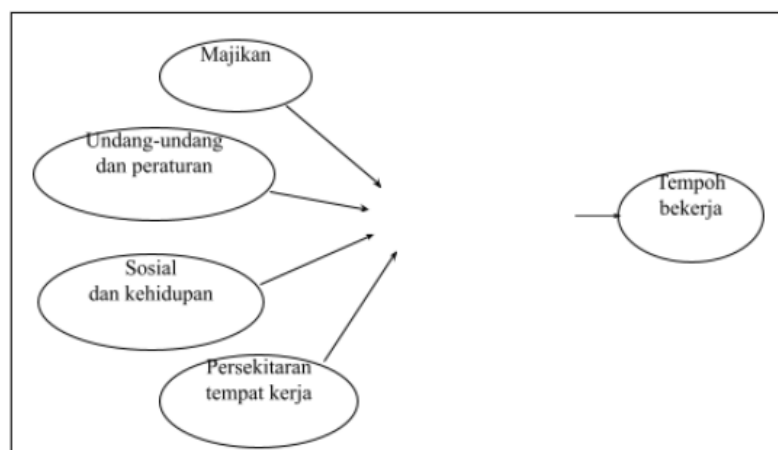
Berasaskan Rajah 1, kajian ini membentuk beberapa hipotesis bagi setiap persepsi dan pandangan buruh asing berkemahiran rendah terhadap tempoh mereka bekerja di negara ini. Kesemua hipotesis dijangka mempengaruhi tempoh bekerja buruh asing secara positif.

H₁: Pandangan pekerja asing terhadap aspek majikan secara positif mempengaruhi tempoh bekerja.

H₂: Pandangan pekerja asing terhadap undang-undang dan peraturan imigresen secara positif mempengaruhi tempoh bekerja.

H₃: Pandangan pekerja asing terhadap aspek sosial dan kehidupan secara positif mempengaruhi tempoh bekerja.

H₄: Pandangan pekerja asing terhadap aspek persekitaran tempat kerja secara positif mempengaruhi tempoh bekerja

Kajian ini menggunakan perisisan SmartPLS untuk menganalisis hubungan antara pandangan dan persepsi dan pekerja asing sebagai pembolehubah tidak bersandar dengan aspek pekerjaan dan sosial yang mewakili pembolehubah bersandar. Berdasarkan model konsep seperti di dalam Rajah 1, kajian ini membentuk empat konstruk yang mewakili dimensi pandangan dan persepsi buruh asing terhadap aspek majikan, undang-undang dan peraturan, aspek sosial dan kehidupan dan persekitaran tempat kerja. Data yang dikumpul bagi kesemua item yang mewakili setiap konstruk adalah dalam bentuk skala likert, iaitu daripada skala 1 hingga 7, dengan skala 1 mewakili tahap sangat tidak bersetuju dan skala 7 mewakili tahap sangat bersetuju terhadap pandangan mereka.

Jadual 1 menunjukkan senarai konstruk dan item (indikator) yang dianalisis dalam kajian ini. Konstruk dan item dalam kajian ini juga mewakili pemboleh ubah bebas berhubung pandangan dan persepsi buruh asing. Merujuk kepada empat konstruk yang telah disenaraikan, setiap konstruk diwakili oleh beberapa item sebagai indikator yang dapat menerangkan konstruk dengan lebih terperinci. Sejumlah 19 item telah disenaraikan untuk dianalisis dengan item terbanyak adalah bagi konstruk aspek sosial dan kehidupan.

JADUAL 1: Konstruk dan Indikator Berhubung Pandangan Pekerja Asing

Konstruk dan Item
1.   Aspek majikan
A1.   Majikan bertanggungjawab terhadap aspek perlindungan keselamatan
A2.   Upah/gaji yang dibayar bersesuaian
A3.   Majikan berpuas hati dengan kerja yang dilakukan
A4.   Ganjaran/bonus/penghargaan oleh majikan adalah bersesuaian
2.   Undang-undang dan peraturan
B1.   Proses mendapatkan permit kerja adalah adil
B2.   Undang-undang imigresen adalah baik
B3.   Program Amnesti yang dijalankan sangat membantu masalah yang dihadapi
B4.   Dasar (3+1+1 tahun) permit kerja yang dilaksanakan adalah sesuai
B5.   Proses pengambilan dan penempatan pekerjaan adalah sesuai
3.   Aspek sosial dan kehidupan
C1.   Keluarga memberi sokongan moral untuk bekerja di Malaysia
C2.   Kos sara hidup dapat ditanggung
C3.   Pekerja asing dapat menyesuaikan diri dengan kehidupan di Malaysia
C4.   Semua kemudahan adalah memuaskan
C5.   Perkhidmatan penghantaran wang ke negara asal adalah mudah
C6.   Perjalanan ke Malaysia dan ke negara asal adalah selamat dan terjamin
4.   Persekitaran tempat kerja
D1.   Persekitaran kerja adalah memuaskan
D2.   Waktu kerja adalah sesuai
D3.   Keselamatan di tempat kerja adalah diutamakan
D4.   Wujud hubungan baik dengan rakan di tempat kerja

DAPATAN KAJIAN

Profil Responden

Analisis berhubung profil responden menggunakan program perisisan *'Statistical Package for Science Social'* (SPSS). Perisian SPSS telah banyak digunakan dalam pelbagai bidang meliputi pendidikan, pentadbiran dan perindustrian. Jadual 2 menunjukkan beberapa indikator penting berhubung profil pekerja asing yang boleh memberi gambaran terhadap latarbelakang mereka yang bekerja di negara ini.

Merujuk Jadual 2, negara Indonesia mencatatkan bilangan yang paling ramai bermigrasi untuk bekerja di negara ini, iaitu sejumlah 23.5% (198 orang), diikuti oleh pekerja Bangladesh merekodkan jumlah kedua tertinggi yang migrasi, iaitu 21.1% (178 orang). Di samping itu, negara Thailand dan Nepal pula mencatatkan jumlah sampel pekerja masing-masing sebanyak 10.9(92 orang) dan 10.5% (89 orang). Selain itu, terdapat 5 buah negara yang mencatatkan kemasukan pekerja asing yang kurang daripada 10%, iaitu pekerja dari negara Myanmar, India, Pakistan Filipina dan Vietnam, sementara lain-lain negara adalah dari negara China, Laos, Kemboja dan Sri Lanka.

JADUAL 2: Profil Pekerja Asing

Profil		Bilangan	Peratus
Negara asal	Indonesia	198	23.5
	Bangladesh	178	21.1
	Nepal	89	10.5
	Thailand	92	10.9
	Myanmar	67	7.9
	India	79	9.4
	Pakistan	62	7.3
	Filipina	31	3.7
	Vietnam	28	3.3
	Lain-lain	20	2.4
Subsektor bekerja	Perhotelan dan resort	196	23.2
	Restoran	192	22.7
	Pembersihan dan pencucian	126	14.9
	Pembantu jualan	97	11.5
	Penyelenggaraan	79	9.4
	Pengurusan kargo	36	4.3
	Spa dan refleksologi	50	5.9
	Lain-lain	68	8.1
Jantina	Lelaki	592	70.1
	Perempuan	252	29.9
Umur	25	114	13.5
	26-35	504	59.7
	36-45	170	20.1
	46-55	50	6.0
	> 55	6	0.7
Status perkahwinan	Bujang	548	64.9
	Berkahwin	296	35.1
Tahap pendidikan	Tiada pendidikan formal	143	16.9
	Sekolah rendah	197	23.3
	Sekolah menengah	400	47.4
	Sijil	54	6.4
	Diploma	42	5.0
	Ijazah	8	0.9
Jenis dokumen bekerja	Permit bekerja	734	87.0
	Kad pengenalan (penduduk tetap)	83	9.8
	Lain-lain	27	3.2

Nota: Jumlah Responden: N=844 orang.

Merujuk kepada subsektor perkhidmatan, subsektor perhotelan dan resort merekodkan jumlah pekerja asing tertinggi dengan peratus sebanyak 23.2% (196 orang). Ini diikuti dengan subsektor restoran sejumlah 22.7% (192 orang) pekerja asing. Perkembangan dalam subsektor perkhidmatan makanan dan minuman telah mewujudkan banyak restoran dan tempat makan, terutamanya yang menyediakan makanan citarasa Thailand memerlukan tukang masak (chef) dari negara tersebut. Keperluan terhadap pekerja tukang masak dan penyedia makanan dari negara tersebut adalah penting untuk mengekalkan keaslian dan rasa makanan yang dihidangkan.

Di samping itu, subsektor perkhidmatan pembersihan dan pencucian mencatatkan peratus sebanyak 14.9% (126 orang) pekerja asing. Jumlah yang agak memberangsangkan ini disebabkan pekerja asing yang diambil bekerja bukan mengkhusus untuk melakukan tugas-tugas tertentu seperti pengemas bilik dan kerja-kerja pembersihan, namun pengambilan mereka turut meliputi tugas-tugas lain. Oleh itu,

keperluan pekerja asing dalam subsektor perhotelan pada masa kini telah semakin meluas kerana pengambilan mereka turut meliputi pelbagai aspek pekerjaan, misalnya sebagai pekerja di barisan hadapan seperti di pintu masuk, kaunter malah restoran di hotel juga menggunakan perkhidmatan pekerja asing.

Subsektor perkhidmatan jualan dan penyelenggaraan (seperti paip, penghawa dingin dan seumpamanya), masing-masing mencatat peratus sebanyak 11.5% (97 orang) dan 9.4% (79 orang). Sementara subsektor spa dan refleksologi 5.9% (50 orang). Subsektor pengurusan kargo dan subsektor perkhidmatan lain masing-masing merekodkan peratus kurang daripada 5.0%. Subsektor perkhidmatan lain adalah mereka yang bekerja antaranya di subsektor perkhidmatan elektrik, pengurusan bahan sisa dan buangan. Statistik di atas menunjukkan bahawa pekerja asing yang datang bekerja di negara ini tidak memilih pekerjaan meskipun bekerja di dalam sektor 3D.

Golongan lelaki mencatat sebahagian besar responden bagi kajian ini dengan jumlah 70.15 (592 orang) dariapda jumlah keseluruhan responden, sementara kaum perempuan 29.9% (252 orang). Ini menunjukkan golongan lelaki lebih ramai yang berhijrah untuk bekerja di negara ini. Bagi kategori umur pula, sebahagian besar responden berada di dalam lingkungan umur antara 26-35 tahun (59.7%), diikuti dengan 36-45 tahun (20.1%).

Bagi status perkahwinan pula kebanyakan responden masih belum berkahwin (64.9%), sementara 35.1% dariapda mereka telah berkahwin. Seterusnya, sejumlah 47.4% (400 orang) adalah mereka yang memiliki tahap pendidikan sekolah menengah dan 23.3% (197 orang) mempunyai tahap pendidikan sekolah rendah. Mereka yang tidak bersekolah pula menunjukkan peratus yang agak tinggi, iaitu sebanyak 16.9% dengan jumlah 143 orang. Sementara itu, apa yang menarik ialah terdapat responden yang memiliki tahap pendidikan tinggi (sijil, diploma dan ijazah) dengan kesemuanya sejumlah 12.3%. Kepelbagaian dalam tahap pendidikan dalam kalangan pekerja asing yang bekerja di negara ini, khususnya mereka yang memiliki tahap pendidikan tinggi menunjukkan bahawa pelerja asing yang datang ke negara ini hanya ingin mendapat pekerjaan sungguhpun terpaksa bekerja sebagai pekerja berkemahiran rendah.

Sejumlah 734 orang pekerja asing (87%) adalah mereka yang mempunyai permit kerja yang sah, sementara 83 orang (9.8%) mereka yang memiliki kad pengenalan sebagai penduduk tetap. Selebihnya, iaitu seramai 27 orang (3.2%) mempunyai lain-lain jenis dokumen bekerja, seperti pemegang kad UNCHR (The United Nations High Commissioner for Refugees). Terdapat juga sebilangan kecil yang bekerja menggunakan visa perkahwinan.

Analisis Kesahan dan Kebolehpercaya

Analisis kesahan menumpu (convergence validity) dibuat dengan merujuk kepada nilai faktor muatan (loading factor) dan nilai purata varians diekstrak (AVE: average variance extracted) untuk setiap item dan konstruk yang digunakan dalam kajian ini (lihat Jadual 3). Selanjutnya ujian kesahan (*validity test*) dibuat berdasarkan ujian kebolehpercaya (reliability test) yang dianggar menerusi nilai kebolehpercaya komposit (CR: composite reliability) seperti yang dipaparkan di dalam Jadual 4. Turut disertakan di dalam jadual tersebut ialah nilai bagi koefisien alfa Cronbach.

JADUAL 3: Keputusan Kesahan Menumpu

Konstruk dan Item	Faktor muatan (*Loading factor*)				AVE
	1	**2**	**3**	**4**	
1. **Aspek majikan**					**0.808**
A1. Majikan seorang yang bertanggungjawab	0.830				
A4. Ganjaran/bonus/penghargaan oleh majikan adalah bersesuaian	0.963				
2. **Undang-undang dan peraturan**					**0.794**
B1. Program Amnesti yang dijalankan sangat membantu masalah yang dihadapi		0.794			
B4. Dasar (3+1+1 tahun) permit kerja yang dilaksanakan adalah sesuai		0.979			
3. **Aspek sosial dan kehidupan**					**0.668**
C1. Keluarga memberi sokongan moral untuk bekerja di Malaysia			0.734		
C2. Kos sara hidup dapat ditanggung			0.845		

Konstruk dan Item	Faktor muatan (*Loading factor*)				AVE
	1	2	3	4	
C3. Pekerja asing dapat menyesuaikan diri dengan kehidupan di Malaysia			0.850		
C6. Perjalanan ke Malaysia dan ke negara asal adalah selamat dan terjamin			0.834		
4. Persekitaran tempat kerja					**0.666**
D1. Persekitaran kerja adalah memuaskan				0.730	
D2. Waktu kerja adalah sesuai				0.942	
D3. Keselamatan di tempat kerja adalah diutamakan				0.759	

Hair et al. (2017) mencadangkan nilai item atau indikator harus melebihi nilai skor melebihi 0.7, sementara nilai skor yang kurang daripada 0.7 perlu digugurkan. Merujuk Jadual 3, setiap item menunjukkan nilai faktor muatan melebihi 0.7. Oleh itu, nilai item yang kurang daripada 0.7 yang telah digugurkan kerana tidak memenuhi kriteria yang telah dicadangkan. Daripada jumlah keseluruhan indikator sebanyak 19 item, hanya 11 item sahaja yang dapat digunakan untuk dinilai. Sebahagian besar item mewakili konstruk aspek sosial dan kehidupan pekrja asing di negara ini.

Bagi nilai AVE pula, Hair et al. (2017) mencadangkan nilai minimum haruslah melebihi 0.5. Nilai AVE bertujuan mengukur varians yang telah diperoleh menerusi indikator relatif, di samping sebagai pengukuran kepada ralat. Keputusan menunjukkan taburan nilai AVE bagi setiap konstruk adalah dalam lingkungan 0.666-0.808. Oleh itu, hasil ujian menunjukkan kesemua konstruk berupaya memberi pengukuran yang baik berdasarkan nilai-nilai yang diperoleh (Hair et al. 2017).

Berdasarkan maklumat di dalam Jadual 4, ujian kebolehpercaya merujuk kepada nilai koefisein alfa sebagai nilai yang mengukur ketekalan. Nilai penentu dalam menentukan ujian tahap kebolehpercaya instrumen adalah pada nilai skor 0.7 atau lebih adalah diterima. Namun begitu, nilai alfa yang sederhana, iaitu pada nilai skor 0.5 hingga 0.6 masih boleh diterima (Nunally & Berstein, 1994). Nilai koefisein alfa bagi kesemua konstruk dalam kajian ini adalah melebihi 0.7, iaitu di antara 0.784 - 0.835. Ini menunjukkan bahawa nilai skor bagi alfa untuk semua konstruk yang digunakan dalam kajian ini adalah boleh diterima (Nunally & Berstein 1994). Nilai kebolehpercaya komposit (CR) juga menilai konsistensi bagi setiap konstruk yang dikaji. Hair et al. (2007) turut mencadangkan bahawa nilai yang melebihi 0.7 adalah diterima. Keputusan ujian CR adalah konsisten dengan nilai koefisien alfa, dengan semua nilai melebihi 0.7, iaitu di antara 0.855-0.893. Oleh itu, kesemua nilai skor bagi alfa dan kebolehpercaya komposit (CR) yang diperoleh bagi kajian ini adalah tekal.

JADUAL 4: Keputusan Ujian Kesahan dan Kebolehpercaya

Konstruk	Ujian Kesahan (HTMT) (*Discriminant Validity*)				Ujian Kebolehpercaya (*Reliability Test*)	
	1	2	3	4	α	CR
1. Aspek majikan	1				0.787	0.893
2. Undang-undang dan peraturan	0.034 (0.028, 0.093)	1			0.789	0.884
3. Aspek sosial dan kehidupan	0.117 (0.094, 0.218)	0.233 (0.255, 0.387)	1		0.835	0.889
4. Persekitaran tempat kerja	0.140 (0.147, 0.308)	0.339 (0.362, 0.500)	0.500 (0.596, 0.703)	1	0.784	0.855

Nota: HTMT merujuk kepada Heterotrait-Monotrait Ratio discriminant validity. Nilai di dalam kurungan adalah nilai bagi selang kenyakinan pada 5% dan 95%.

Jadual 5 menunjukkan ujian multikolineariti yang diperoleh menerusi nilai VIF (variance inflation factor). Nilai VIF bagi kesemua konstruk berada dalam lingkungan antara 1.023 hingga 1.447, iaitu berada di bawah 5 menunjukkan kesemua konstruk memenuhi nilai yang disarankan oleh Hair et al. (2017). Hasil ujian menunjukkan setiap konstruk yang digunakan di dalam kajian ini tidak mempunyai masalah kolineariti antara satu dengan lain. Selanjutnya nilai min bagi setiap konstruk berada dalam skala 4.8-5.6 menunjukkan terdapat dua konstruk berada dalam skala tinggi, iaitu melebihi skala 5.

JADUAL 5: Min, Sisihan Piawai dan Multikolineariti

Konstruk	Min	Sisihan piawai	VIF
1. Aspek majikan	4.886	0.022	1.023
2. Undang-undang dan peraturan	4.884	0.020	1.137
3. Aspek sosial dan kehidupan	5.351	0.011	1.346
4. Persekitaran tempat kerja	5.585	0;017	1.447

Keputusan Hipotesis

Jadual 6 menunjukan dapatan bagi keputusan hipotesis mengenai hubungan antara persepsi buruh asing berkemahiran rendah di dalam subsektor perkhidmatan terpilih dengan tempoh mereka bekerja di negara ini. Keputusan hipotesis menunjukkan bahawa kesemua aspek persepsi buruh asing secara langsung adalah signifikan dengan tempoh mereka bekerja di negara ini pada tahap signifikan 1%, 5% dan 10%.

Persepsi bagi aspek majikan, aspek undang-undang dan peraturan dan aspek persekitaran tempat kerja menunjukkan hubungan positif dengan tempoh bekerja di negara ini. Ketiga-ketiga aspek tersebut masing-masing signifikan pada tahap 5%, 10% dan 1% dengan nilai koefisien 0.107, 0.097 dan 0.221. Sebaliknya, aspek sosial dan kehidupan walaupun signifikan namun secara negatif mempengaruhi tempoh bekerja dengan nilai koefisien sebanyak -0.275.

JADUAL 6: Keputusan Hipotesis

Hipotesis	Hubungan	Koefisien	T-stat	Nilai-p	Keputusan
H_1	Aspek Majikan secara positif mempengaruhi tempoh bekerja.	0.107	3.378	0.001**	Signifikan
H_2	Undang-undang dan peraturan imigresen secara positif mempengaruhi tempoh bekerja.	0.097	2.648	0.008*	Signifikan
H_3	Aspek sosial dan kehidupan secara positif mempengaruhi tempoh bekerja.	-0.275	7.979	0.000***	Signifikan
H_4	Aspek persekitaran tempat kerja secara positif mempengaruhi tempoh bekerja.	0.221	5.396	0.000***	Signifikan
	$R2=0.45$				

Nota: Nilai di dalam kurungan adalah nilai -statistik. ***ialah nilai p yang signifikan pada aras keertian 10%

Daripada dapatan kajian, hubungan yang signifikan dan positif menjelaskan bahawa pekerja asing memberi gambaran yang positif terhadap aspek majikan, undang-undang dan peraturan imigresen dan persekitaran di tempat kerja. Ketiga-tiga aspek ini adalah wajar dalam mempengaruhi tempoh bekerja mereka disebabkan kesemua aspek secara langsung amat berkait rapat dengan pekerjaan dan penggajian pekerja asing.

Dapatan kajian ini di sokong di sokong oleh kajian Othman et al. (2012) yang menyatakan kebanyakan majikan yang menggaji pekerja asing amat berpuas hati dengan kualiti kerja meskipun terdapat segelintir yang kurang memuaskan. Tambahan lagi, di bawah Akta Kerja 1955, perlindungan dan keselamatan terhadap pekerja asing telah ditambah baik sama seperti perlindungan dan keselamatan terhadap pekerja tempatan (Perkeso 2020). Sungguhpun tingkat upah menjadi penentu yang mempengaruhi pekerja asing untuk bekerja lebih lama (Ahad 2015), namun kajian mendapati bahawa kebanyakan pekerja asing tidak begitu mementingkan soal gaji yang diterima. Malah mereka sanggup bekerja lebih masa dan menerima upah lebih rendah (Rahmah et al. 2017).

Sebaliknya, aspek sosial dan kehidupan sungguh mempengaruhi tempoh bekerja secara negatif namun dapat menjelaskan bahawa aspek ini tidak menghalang mereka daripada bekerja lebih lama. Aspek sosial dan kehidupan boleh dikaitkan dengan kos sara hidup di Malaysia yang tinggi bagi sesetengah pekerja asing. Walaupun kos sara hidup meningkat, namun Jabatan Perangkaan Malaysia (2019) melaporkan bahawa pekerja asing lebih tertumpu di negeri maju seperti Selangor, Johor dan Wilayah Persekutuan Kuala Lumpur. Ini disebabkan negeri-negeri tersebut mempunyai banyak kemudahan meliputi pengangkutan dan perumahan, khususnya di kawasan bandar.

Selanjutnya, nilai R2 diperoleh adalah 0.45 menjelaskan bahawa sebanyak 45% indikator yang dikaji dalam kajian ini adalah faktor yang mempengaruhi tempoh bekerja pekerja asing di negara ini.

KESIMPULAN

Berdasarkan dapatan, kajian ini mampu membuat beberapa rumusan berasaskan objektif kajian, iaitu menganalisis hubungan antara persepsi buruh asing dalam mempengaruhi tempoh bekerja mereka di negara ini. Secara keseluruhan, kajian ini merumuskan bahawa persepsi buruh asing yang positif terhadap pekerjaan mempunyai hubungan yang positif dengan tempoh mereka bekerja di negara ini. Secara lebih spesifik, dapatan kajian menunjukan tiga daripada empat persepsi buruh asing yang disenaraikan menunjukkan keputusan positif dengan tempoh bekerja. Ini meliputi persepsi terhadap majikan, undang-undang dan peraturan imigresen, dan aspek persekitaran di tempat kerja.

Selain itu, kajian merumuskan walaupun persepsi terhadap aspek sosial dan kehidupan secara negatif mempengaruhi tempoh bekerja, namun secara keseluruhan mereka berupaya menyesuaikan diri dengan aspek sosial dan kehidupan disebabkan faktor kepelbagaian kaum yang ada di negara ini membantu proses penyesuaian diri dengan kadar yang lebih cepat.

Menerusi kajian ini juga, dapat dirumuskan bahawa pekerja asing tidak lagi hanya tertumpu kepada sektor tertentu, misalnya sektor pembinaan dan perladangan malah profil kajian menunjukkan penglibatan mereka turut dalam pelbagai subsektor perkhidmatan. Ini disebabkan sikap buruh asing yang tekun bekerja dan tidak memilih pekerjaan antara faktor penentu mengapa majikan gemar mengambil buruh asing sebagai pekerja sepenuh masa.

Sungguhpun pekerja asing jika dilihat dari sudut positif mampu memenuhi peluang-peluang pekerjaan, khususnya bagi pekerjaan 3D (difficult, dirty , dangerous), namun kemasukan dan penglibatan mereka secara berlebihan turut memberi kesan negatif. Peningkatan pekerja asing dalam pekerjaan akan meningkatkan persaingan peluang kerja bagi kategori kemahiran yang sama bagi buruh tempatan. Selanjutnya timbul masalah pengangguran dalam kalangan buruh tempatan bagi kategori pekerjaan dan kemahiran yang sama, di samping masalah sosial yang kerap berlaku.

Justeru itu, antara candangan yang boleh dilakukan oleh pihak kerajaan bagi menangani peningkatan kemasukan pekerja asing ialah dengan memperketatkan undang-undang dan peraturan berkaitan imigresen berhubung pengambilan pekerja asing. Selain itu, hukuman yang lebih berat boleh dikenakan kepada pendatang asing tanpa izin (PATI) mahupun majikan yang menggaji pekerja asing yang tidak mempunyai dokumen atau permit kerja yang sah. Langkah ini dijangka dapat mengurangkan jumlah kemasukan dan pengambilan pekerja asing dalam kalangan majikan.

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The Effect of Job Rotation in a Fixed Wage Setting Model: Evidence from Royal Malaysian Navy Officers

Hazrul Shahiri
Kamal Azri Husin
Hafizah Sith
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

The study investigates the extent of job rotation on the career development of Royal Malaysian Navy officers in a fixed wage setting model. It attempts to fill in the gap in the literature concerning the impact of job rotation in a non-conventional wage setting model. The present study is benefited from an actual data set of Royal Malaysian Navy officers that are obtained from the Department of Human Resource, Royal Malaysian Navy in 2017. The data consists of 1686 officers that are ranked from Lieutenant RMN (ZA18/44) to Captain RMN (ZA24/5)2. The analysis of an Ordinary Least Squares OLS regression showed that job rotation is positively associated with education level, training, and experience. The likelihood of job rotation increases if the nature of the job is more flexible in terms of hours of work, skill, and content. Further, there is a significant effect of job rotation on wages. Specifically, a quantile regression indicates that the low-rank position such as Lieutenant and Lieutenant Commander are benefited more from job rotation than a Captain in terms of wage premium. However, the small effect of job rotation in the fixed wage-setting environment suggests that the need to review the way job rotation is being implemented by the Department of Human Resource, Royal Malaysian Navy.

Keywords: duration, promotion, rotation, wage

Business Policy of National Scheduled Airlines for Sustainability of National Airlines in Indonesia

Agoes Soebagio
Muhammad Zilal Hamzah
Eleonora Sofilda
Faculty of Economics and Business,
Department of Economics,
Universitas Trisakti, Indonesia

ABSTRACT

The aviation industry is one of the transportation services that is experiencing rapid growth in line with the development of the global economy and technology. This rapid growth makes the aviation transportation service industry more varied, so that in its sustainability it creates competition between them; especially in terms of price and service competition. In addition to price and service, there is another problem, namely safety which is a determining factor for the sustainability of this aviation transportation business. The aims of this research are: (i). To find out and analyze how the influence of public perception (which consists of: perception of price, safety, company reputation, service quality, customer satisfaction, and customer trust) on customer loyalty; either directly or indirectly for the sustainability of the aviation industry; (ii) Knowing and analyzing how airlines maintain business continuity in the national aviation industry; and (iii) Knowing and analyzing the role of the Government in regulating and supervising the Aviation Industry.

This study uses a combination of a quantitative approach using Structural Equation Modeling (SEM) and a qualitative approach through in-depth interviews with airlines and regulators. Data analysis used the Analysis of Moment Structures (AMOS) program for hypothesis testing and NVivo for policy analysis. Data comes from primary data through focus group discussions (FGD) and secondary data sources taken from airline financial reports from 2015-2019. The object of this research is the passengers of 6 commercial airlines, namely Garuda Indonesia, Batik Air, Sriwijaya Air, Lion Air, Indonesia Air Asia and Citilink.

Based on the results of the quantitative analysis method, it was obtained that the direct effect of price perception had a positive and significant effect on customer satisfaction, company reputation had a significant positive effect on customer trust, service quality had a significant positive effect on customer satisfaction and trust, service quality and customer satisfaction had a positive effect. Customer trust, customer satisfaction and customer trust have a positive and significant effect on customer loyalty. For the indirect effect, the research results show that price and service quality have a positive and significant effect on loyalty through customer satisfaction.

Meanwhile, the results of interviews with airlines and regulators processed with the NVivo program indicate that the determination of the lower limit fares must be regulated by the Government (as regulator) so that price predators do not occur. Airlines consider that price competition can sometimes be unhealthy. Safety is also a major factor for airlines for the sustainability of the business itself. Meanwhile, from the regulator's point of view, stating that the world of aviation is largely determined by the level of security and safety of the flight itself; both on the ground and in the air. Various efficiency efforts can be made, but safety and security standards should not be lowered in the slightest. The regulator has controlled the above factors and according to the regulator there needs to be a synergy with all related parties, including the aviation industry itself, the manager, and of course the public's understanding of safety itself.

Keywords: Bussines policy analysis, Commercial Airline, Safety and Sustainability Business, Qualitative and Quantitative Methods, Economic Growth

Impact of The Covid-19 Pandemic on Tourism Consumption Behavior: Empirical Study on Indonesian Domestic Tourists

Lis Andriani
Mudji Rachmat Ramelan
Mirwan Karim
Faculty of Economics and Business,
University of Lampung, Indonesia

ABSTRACT

The COVID-19 pandemic has adversely affected all economic sectors, including peoples' perceptions of the tourism industry and its supporting ventures. Meanwhile, the sustainability of the tourism industry is highly dependent on tourist flow and these perceptions. Therefore, this study analyzes tourists' attitudes related to hygiene and safety factors, their consumption behavior, and tourism potential during and after the Covid-19 pandemic. Data were collected from 353 respondents through an online questionnaire and survey method and analyzed using the descriptive statistical technique one-sample t-test, while SPSS was used for hypothesis testing. The results showed that tourists recognized the importance of implementing health protocols during the pandemic, therefore, all proposed hypotheses were accepted. Also, the pandemic condition does not cut off their interest in traveling rather it tends to delay their plans to destinations with high infection rates. Tourists avoid crowded destinations, group trips and choose culinary tours and outdoor attractions around their residential areas. Original nature-based (ecotourism, maritime, marine) and agriculture-based (agrotourism) attractions with privacy and customization offerings act as tourism potential during and after the COVID-19 pandemic.

Keywords: Tourist destinations, tourism consumption, tourist behavior, hygiene, safety

INTRODUCTION

The emergence of the Covid-19 pandemic in December 2019 has triggered decisive changes in all aspects of regional and global social life, especially in health and the economy. It also affected the tourism industry, which is one of the most sensitive and vulnerable sectors to both internal and external crises (Sönmez et al., 1999; Cró & Martins, 2017). These include political instability, economic conditions, environment, and weather (Okumus et al., 2005). Preliminary studies reported 5 risk factors and crises that have a significant impact on destination choice, namely (1) War and political instability, (2) Health problems or infectious diseases, (3) Crime, (4) Terrorism, and (5) Natural disasters (Albattat et al., 2018).

Regarding health problems and infectious diseases, epidemics and pandemics remain significant risk factors due to virus transmission (Abukhalifeh, et al., 2018). The emergence of the Covid-19 outbreak has forced many countries to close their territorial borders, suspend visa-on-arrival policies, impose travel bans both internationally, regionally, and locally, as well as implement quarantine or lockdown policy due to transmission through human contact (Chan et al., 2020). These actions have brought losses to the tourism industry both locally and internationally. The UN World Tourism Organization reported that international tourist arrivals worldwide are expected to decline by relatively 20% to 30% in 2020 due to the Covid-19 pandemic, thereby leading to a reduction in global tourism revenues to approximately US$ 300 to 450 billion (UNWTO, 2020).

In Indonesia, the Large-Scale Social Restriction (PSBB) policy imposed by the government to prevent the spread of the virus has limited people's movement. It led to a decrease in the number of domestic and foreign tourist visits, including hotel and restaurant room occupancy rates, closure of recreational and entertainment areas, as well as affected the supporting ventures of tourism and the creative economy such as transportation. The Central Statistics Agency (BPS) reported that national economic growth in the second quarter of 2020 contracted by -5.32%, the least since 1999. This condition was also felt by several provinces that rely on the tourism sector, such as Bali, Riau Islands, and West Java. In the second quarter of 2020, Bali's tourism growth rate decreased by 10.98% from the previous year, followed by Riau Islands and West Java, which witnessed a reduction of 6.66%, and 5.98%, respectively.

The impact of Covid-19 on this industry was reflected in the supply-side income and tourists' perception of the risk inherent from the demand side, which is extremely important in the tourism

decision-making process (Sönmez & Graefe, 1998; Floyd et al., 2004). In this regard, security is a key factor of tourist willingness to travel, thereby influencing tourism demand (Simon, 2009). Yousaf et al., (2018) stated that a destination is bound to attract visitors, assuming it provides a safe and secure environment, which makes tourists feel secure during their stay.

The pandemic changed the paradigm of tourist behavior towards their consumption decisions, besides certain normalized activities have become prohibited. Increased anxiety about virus transmission, physical harm, and social isolation affects the tourists' thoughts, feelings, and behavior. Consequently, the current prediction of tourism consumption behavior is tremendously complicated and is highly dependent on tourist flows and individual responses. Therefore, further studies need to be carried out on tourist attitudes and behavior amid the pandemic, aiming to assist tourism managers in identifying strategies to respond to situations ideally. This study aims to analyze tourists' attitudes related to hygiene and safety factors, tourism consumption, and potential during and after the Covid-19 pandemic.

LITERATURE REVIEW

COVID-19 Risk Perception among Tourists

According to Brewer et al., (2004), perceived risk is a central construct in many health behavior theories and is often referred to as either likelihood, vulnerability, or perceived vulnerability. Han (2005) stated that health risk refers to the perceived likelihood of becoming ill, while Chien et al., (2017) defined perceived travel risk as an assessment of the negative valence probability related to an unfavorable event and bound to the health and safety period. Previous studies have reported that these perceptions tend to vary according to individual conditions. These risks are common in all destinations and have attracted widespread attention from tourism studies.

Regarding health risks related to pandemics, in the past several outbreaks have affected the tourism economy and tourist travel behavior, namely, SARS (Pine & McKercher, 2004), H1N1 (Lee et al., 2012; Leggat et al., 2010) or Ebola (Cahyanto et al., 2016), stated that the SARS outbreak created uncertainty on the person-to-person transmission of the virus and ambiguity over its identification and control, which collectively led to public panic. Neighboring destinations and countries were affected through a negative image, thereby influencing the tourists' tendency to travel internationally (Kozak et al., 2007).

However, the Covid-19 pandemic developed into a major global crisis that massively affected tourism and tourists' travel behavior (UNWTO, 2020). It affected the way they travel indefinitely, especially in terms of speed, intensity, and spontaneity (Lahood, 2020). Neuburger & Egger (2020) discovered that the Covid-19 pandemic and travel risk perception significantly led to the cancelation of travel plans, especially to destinations prone to the virus infection. In line with previous studies on outbreaks carried out by Cahyanto et al., (2016), Leggat et al., (2010), Pine & McKercher (2004), Liao et al., (2010), the increased perception of health risks during the Covid-19 pandemic directed tourists' actions in terms of traveling.

Nguyen (2020) carried out research on tourist attitudes in respect to making tourism decisions and stated that they generally recognized the high risk associated with traveling during the Covid-19 pandemic. In addition, the precautionary measures are taken to reduce viral infections while traveling still poses a risk to the global spread of the virus. According to Farzanegan et al., (2021), given that this is largely caused by human interaction, movement tends to be a dominant driver of the outbreak and its magnitude. Travelers are mostly the contagion of the pandemic. This is the reason for the tourists' disagreement on the tourism promotion program during the Covid-19 outbreak (Nguyen, 2020).

Tourists' Attitudes on Hygiene and Security amid the COVID-19 Outbreak

The predominant impact of the pandemic is public awareness and concern for Hygiene and Safety. Coronavirus is transmitted through droplets of saliva or fluid particles (aerosols) from the mouth or nose of an infected person when they cough, sneeze, talk, sing or breathe (WHO, 2020). Current evidence shows that the virus spreads when people come in close contact, usually within 1 meter, making it possible for aerosols or droplets containing the virus to contact the eyes, nose, or mouth directly. The Covid-19 virus is also spread in poorly ventilated and crowded indoor environments because the aerosol remains suspended in the air when dropped and travels further than 1 meter (WHO, 2020).

People also become infected by touching a contaminated surface exactly before touching their eyes, nose, or mouth without washing or sanitizing their hands. The study carried out by Bhargava (2020) published on WebMD stated that the virus survives on different media surfaces, such as metal, wood,

plastic, stainless steel, cardboard, aluminum, glass, and other objects. In addition, its vitality is affected by cold, heat, and sunlight, while, humans are likely to touch these surfaces daily, thereby increasing the risk of infection. According to the World Health Organization (2020), wearing a mask, maintaining physical distance, frequent hand washing, and disinfection, ensuring rooms are properly ventilated, avoiding crowds, coughing with bent elbow or tissue, monitoring information, and following local guidelines regarding Covid-19 are some of the strategies used to prevent the spread of this virus.

To prevent the spread of this virus, the Indonesian government calls on the public to always apply 3M (wearing masks, maintaining physical distance, and washing hands) while providing information about the recent development of the Covid-19 pandemic both regionally globally. It has also changed the tourism industry's view of Hygiene and Safety. The Indonesian government has gradually reopened several sectors in this industry by implementing strict health protocols through the Clean, Health and Safety (CHS or K3) policy to minimize the risk of infection and offer the tourists a sense of security and convenience. The government-imposed restrictions on the number of visitors as much as 50% of the existing capacity, enforced online ticket purchases, availability of handwashing basins or sanitizers, checking of body temperature before entering tourist sites, and having patrol officers overseeing visitors regarding the use of masks and social distancing. Banners to remind them of wearing masks, social distancing, and washing hands also needs to be installed in several corners.

Based on the aforementioned description, it is crucial to perceive tourists' attitudes towards hygiene and safety factors that serve as a preventive measure during the pandemic. This led to the following hypotheses.

H1a : Tourists perceive the importance of wearing masks during the pandemic.
H1b : Tourists perceive the importance of frequent handwashing during the pandemic.
H1c : Tourists perceive the importance of providing sanitizers during the pandemic.
H1d : Tourists perceive the importance of physical distancing during the pandemic.
H1e : Travelers perceive the importance of travel restrictions during the pandemic.
H1f : Tourists perceive the importance of avoiding direct interaction with other people during the pandemic.
H1g : Tourists perceive the importance of avoiding crowded places during the pandemic.
H1h : Tourists perceive the importance of avoiding eating out during the pandemic.
H1j : Tourists perceive the importance of paying attention to news related to the pandemic.

Tourists' Behavioral Change in Response to Health Risks

This is an evaluation of the risky situation regarding making travel decisions and experiences, including buying and consuming certain products (Reisinger & Mavondo, 2005). In general, consumers prefer to avoid certain risks and uncertainties when buying a product or service, however this choice leads to behavioral changes (Fuchs & Reichel, 2011). In the context of travel, changes in tourist behavior are in response to risk. Although, this is reduced when they reach maximum risk tolerance (Fischhoff et al., 2004; Fuchs & Reichel, 2011). The greater the perceived risk, the more rational a tourist is in making decisions (Fuchs & Reichel, 2011). Roehl and Fesenmaier (1992) stated that the relationship between perceived risk and travel behavior is specific to the situation, which subjectively affects the choice of tourist destinations (Reichel et al., 2007).

Most of the previous studies on tourists' perceptions of perceived risk, such as Chien et al., (2017) and Karl et al., (2015), reported that it plays a role in destination selection (Fuchs & Reichel, 2011); (Karl et al., 2015); (Lepp & Gibson, 2003). Tourists are likely to avoid visiting high-risk areas (Kozak et al., 2007; Law, 2006; McKercher & Hui, 2004; Uriely et al., 2007). Therefore, when faced with high risk, rather than generally acting as tourists with no specific purpose other than recreation, they prefer the destinations that best suit their needs, offer the most benefits at the lowest risk.

Perceived health risk refers to a person's susceptibility to contracting a disease and its severity (Brewer & Fazekas, 2007). The higher the susceptibility and severity of a disease, the more likely the individual tends to reduce the risk of contractions (Chapman & Skinner, 2008). Subsequently, those that feel they are at risk of contracting the disease adopt preventive measures, such as avoiding traveling. For example, after the SARS outbreak, tourist preferences regarding destinations changed. They started to like nature-based tourism (Zeng et al., 2005) by offering open and spacious facilities, which led to little or no contact with other people (Cai, 2003). The risk perceived by tourists also affects specific considerations when choosing a trip to a new destination.

They also pay special attention to distance, McKercher (2008) stated that tourists usually travel to multiple destinations further from their homes to reduce risk. However, Lo et al., (2011) and

McKercher (2008) disclosed their preference for short trips and visiting tourist attractions around their residences (Li & Ji, 2003). In terms of transportation, post-SARS tourists prefer road trips or self-driving (Wen et al., 2005). Furthermore, other behavioral changes are also applicable to the Covid-19 outbreak, such as seeking more information before traveling (Fuchs & Reichel, 2011), purchasing travel insurance (Fuchs & Reichel, 2006; Lo et al., 2011), and getting vaccinated (Lo et al., 2011; Yeung et al., 2005). The impact of perceived risk on tourist behavior varies in respect to demography (Lo et al., 2011; Wen et al., 2005) and culture (Reisinger & Mavondo, 2005). Most travelers during Covid-19 expressed a more tactful and conservative attitude and showed less tendency in terms of seeking out new attractions.

The Large-Scale Social Restriction Policy (PSBB) implemented in several regions to prevent the spread of the Covid-19 virus limited people's movements. They tend to carry out virtually all activities from home, avoid crowded places and mass gatherings, postpone or cancel public events, as well as tourist trips. This certainly impacts tourist visits to recreational and entertainment areas, hotel room occupancy rates, and restaurants, as well as tourism supporting sectors and the creative economy such as transportation.

Previous studies carried out by Cahyanto et al., (2016); Lee et al., (2012); Leggat et al., (2010); Pine & McKercher, (2004); Liao et al., (2010), regarding infectious disease outbreaks in the tourism sector, stated that increased perceptions of health risks during a pandemic led to tourists' actions to avoid traveling. In line with these studies, Neuburger & Egger (2020) stated that the Covid-19 outbreak significantly led to the intention or willingness to cancel travel plans, especially to destinations that have recorded high cases. Therefore, this led to the following hypothesis.

H2: Tourists prefer to postpone travel plans to destinations infected with the Covid-19 virus.

Tourists prefer tourist destinations close to their residential areas rather than cross-regions to avoid transmission of the virus due to the high risk of long-distance travel. McKercher (2008) stated that tourists travel to multiple destinations further from their homes to reduce risk. This is in line with the studies carried out by McKercher (2008) and Chebli & Ben Said (2020), which stated that the Covid-19 pandemic did not have a negative impact on people's desire to travel far from home as well as continue to explore across borders. However, Fuchs & Reichel (2006) and Lo et al., (2011), stated that they prefer to visit famous tourist attractions around their areas. This led to the subsequent hypothesis proposed in this study.

H3. Tourists prefer destinations around their residential areas during the Covid-19 pandemic.

Anxiety and fear of being contaminated or infected with the virus in crowded places impact people's behavior in selecting tourist attractions, recreation and entertainment, hotel room reservations, and restaurants. Instead, they prefer unpopular places with few visitors and a low risk of virus transmission. Wen et al., (2005) stated that the SARS outbreak influenced tourist trends and preferences, especially the tourism type and travel patterns. They tend to be more interested in outdoor activities and ecotourism, where city dwellers prefer to travel to the suburbs and the countryside. Nguyen (2020) carried out research on tourist attitudes and responses to travel during the Covid-19 pandemic and reported that they still prefer to adjust themselves and go on tours as long as their chosen destination is safe and in good condition. According to Chebli and Ben Said (2020), many tourists prefer less popular destinations triggered by their internal motivation during the pandemic. Therefore, the following hypotheses were proposed.

H4: Tourists avoided popular tourist destinations during the Covid-19 pandemic.
H5: Tourists prefer to visit tourism attractions, hotels, cafes, and restaurants with natural and outdoor nuances.

Consequently, being in an enclosed space when traveling, such as in cars, buses, ships, planes, etc. It also promotes the risk of rapid transmission, thereby causing people to travel in groups. Tourists usually prefer to travel in private vehicles (Fall & Massey, 2005), even during the SARS outbreak (Wen et al., 2005). During the Covid-19 pandemic, it was also discovered that many tourists delayed their group tours (Chebli & Ben Said 2020). This simply indicates that disease affects tourists' tendency to avoid group travel to minimize the risk of transmitting the virus. Therefore, this led to the following hypothesis.

H6: Tourists prefer to travel using private vehicles during the Covid-19 pandemic.
H7: Tourists avoided group travel during the Covid-19 pandemic.

The Covid-19 pandemic has placed hygiene and the quality of public services in a crucial position. Tourists pay huge attention to the hygiene of airports, public spaces, hotels, restaurants, attractions, etc. The performances of the tourists' destinations' health system, such as sanitation hygiene and the application of standard protocols, and the availability of handwashing facilities and sanitizers, offer a sense of security and convenience. In addition, these factors influence tourist travel decisions. Wen et al. (2005) stated that the SARS outbreak attracted the public towards hygiene and safety issues, which became essential in making travel and tourism decisions. In line with that, Higgins-Desbiolles (2020) further reported that huge attention is paid to the hygiene factor of a tourist attraction leading to the preference of ecotourism tourism during this pandemic. Likewise, Chebli dan Ben Said (2020) stated that one of the significant impacts of the Covid-19 health crisis is hygiene and health awareness. The following hypothesis was proposed based on this reason.

H8: Tourists pay more attention to the sanitation hygiene standards and health protocols of tourist destinations during the Covid-19 pandemic.

METHODS

Design, Sample, and Analysis

This research was carried out with a quantitative, descriptive, and verification design to identify tourist attitudes regarding hygiene and safety factors, determine their behavior in tourism consumption, and potentials during and after the Covid-19 pandemic. Data collection was carried out using a survey method by distributing online questionnaires to 353 respondents that had visited recreational and entertainment areas, as well as made hotel and restaurant reservations during the pandemic. Hypothesis testing was performed using a descriptive statistical technique, while the SPSS was used to perform the one-sample t-test. Afterward, a preliminary test was carried out on the research instrument (questionnaire) distributed to 50 respondents and was examined using the Confirmatory Factor Analysis (CFA) techniques to determine each question item's level of validity and reliability.

The questionnaire consists of 3 sections with measurement indicators adopted from several previous studies adjusted to the current pandemic conditions, including Wen et al., (2005), Chebli & Ben Said (2020), Gössling et al., (2021), Higgins-Desbiolles (2020), and Hoque, et al., (2020). The first section constitutes factual questions that aid in identifying the socio-economic dimensions of the respondents. The second section contains questions regarding hygiene and safety factors during the Covid-19 pandemic. The respondents were asked to rate the level of importance based on their perception of each item, measured using a 5-point Likert scale with a maximum and minimum score of 5 and 1, respectively, ranging from very unimportant (1) to very important (5). Subsequently, the third section contains questions to identify tourist behavior in tourism consumption. Each is measured on a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), with a maximum and minimum score of 5 and 1, respectively.

Respondent Demographics

The respondents' demographics measured in this study include gender, age, occupation, expenditure per month, and tourist attractions frequently visited, as shown in the following table.

TABLE 1: Respondent Demographics

	Characteristics	Number of people	Percentage (%)
Gender	Male	140	39.7
	Female	213	60.3
Age	17 to 25 years old	93	26.3
	26 to 35 years old	55	15.6
	36 to 45 years old	118	33.4
	46 to 55 years old	67	19.0
	> 55 years old	20	5.7
Occupation	Civil servant or SOE's Employee	87	24.6
	Private sector employee	80	22.7
	Entrepreneur	26	7.4
	Housewife	46	13.0
	Student or College student	51	14.4
	Others	63	17.8
Monthly expenses	< IDR. 2.500.000,-	98	27.8
	IDR. 2.500.000,- up to IDR. 5.000.000,-	80	22.7
	IDR. 5.000.000,- up to IDR. 7.500.000,-	54	15.3
	IDR. 7.500.000,- up to IDR.10.000.000,-	51	14.4
	> IDR.10.000.000,-	70	19.8
Frequently visited tourist attraction (tend to be more than one)	Nature Tourism (Ecotourism, Maritime, Marine)	241	68.3
	Agricultural Tourism (Agrotourism)	41	11.6
	Religion and History Tourism	63	17.8
	Shopping tour	146	41.4
	Culinary tour	240	68
	Educational Tour	48	13.6
	Culture tour	60	17
	Hunting Tour	4	1.1
	MICE (Meeting, Incentive, Convention, Exhibition) Tour	40	11.3
During the COVID-19 pandemic:			
have traveled out of town	Yes	208	58.9
	No	145	41.1
have spent the night at a hotel or inn	Yes	181	51.3
	No	172	48.7
have visited tourist attraction	Yes	233	66.0
	No	120	34.0
have had a meal at a café or restaurant or similar	Yes	310	87.8
	No	43	12.2

Source: Processed Data

Table 1 shows that the respondents' demographics were dominated by 60.3% female, followed by 39.7% male. The tourists were dominated by 26.3% of those within the age range of 17 to 25 years,

15.6% of respondents within the ages of 26 to 35 years, 33.4% of those between 36 to 45 years, and 19% of those within 46 to 55 years. In terms of occupation, the respondents are dominated by 47.3% of both civil servants or SOE and private employees. The remaining 52.7% are Entrepreneurs, Housewives, and Students. Average expenditure per month is dominated by 27.8% spending less than IDR. 2,500,000 while 22.8% spends between IDR. 2,500,000,- to IDR. 5,000,000. Tourist objects frequently visited by respondents are dominated by 68.3%, 68%, and 41.4% of Nature (Ecotourism, Maritime, Marine), Culinary, and Shopping Tourism.

It was discovered that 58.9% of the respondents had traveled outside the city, 51.3% had stayed at a hotel or inn, while 66.0% had visited a tourist attraction, and 87.8% had a meal at a cafe, restaurant or similar places. However, the percentage comparison between respondents that answered yes and no is quite balanced. Hence, many limited themselves to engaging in activities outside their home for tourism purposes during the pandemic.

RESULT AND DISCUSSION

Validity and Reliability Test Results

The validity was tested using Confirmatory Factor Analysis (CFA) method to ensure the question items can be used to measure a concept precisely and correctly, and those with high validity are believed to have the ability to explain the research problem according to actual circumstances or events. Hair, et al., (2010) considered an item to be valid when its factor loading is higher than 0.50. Meanwhile, the reliability was tested to ensure the question items show the same degree of precision, accuracy, stability, or consistency when measured at different times (Sekaran & Bougie, 2016), and an item is considered reliable when the lower bound for the Cronbach's Alphas coefficient is 0.70 (Hair, et al., 2010). The results of the validity and reliability tests for each indicator are shown in table 2

TABLE 2: Validity and Reliability Test Results

Variable	Statement Items	Validity			Reliability
		KMO	Anti-Image	Factor Loading	Cronbach's Alpha
Tourists' Attitude on Hygiene and Safety	S1		0.833	0.774	
	S2		0.714	0.904	
	S3		0.850	0.882	
	S4		0.623	0.828	
	S5	0.736	0.633	0.738	0.905
	S6		0.673	0.806	
	S7		0.880	0.826	
	S8		0.772	0.693	
	S9		0.719	0.582	
Tourists' Behavioural Change	P1		0.842	0.713	
	P2		0.823	0.626	
	P3		0.816	0.729	
	P4	0.816	0.715	0.560	0.819
	P5		0.808	0.758	
	P6		0.835	0.741	
	P7		0.835	0.803	

Source: Processed Data

Table 2 shows that the indicators generally have a KMO Measure of Sampling Adequacy (MSA), Anti Image Correlation Matric and Component Matrix loading factor values greater than 0.7, 0.6, and 0.5, respectively. Therefore, they were all declared valid, considered ideal for measuring each variable, and processed in subsequent steps. Meanwhile, Cronbach's Alpha for each variable generally has a value greater than 0.7, indicating that the measurement instrument is reliable. It was further used as a data collector because of its high level of consistency in measuring research variables.

Results Analysis

The result analysis was carried out through descriptive hypothesis testing with the statistical technique of a one-sample t-test. The average value of the one-sample t-test was compared to that of the μi hypothesis. In addition, the value of t-count was compared to that of the t-table at a significance level of 5%. Table 3 shows the data collection regarding tourist attitudes towards hygiene and safety factors, as well as their behavior on tourism consumption during the Covid-19 pandemic.

TABLE 3: Hypothesis Test Results

	Hypotheses	Mean	t-count	Significance	Category
H1a	Wearing masks	4.8272	63.631	.000	Accepted
H1b	Frequent hand washing	4.6261	41.956	.000	Accepted
H1c	Providing sanitizer	4.7649	58.399	.000	Accepted
H1d	Social distancing	4.7110	48.837	.000	Accepted
H1e	Limiting travel activities	4.4221	32.486	.000	Accepted
H1f	Avoiding direct interaction with other people	4.5496	36.878	.000	Accepted
H1g	Avoiding crowded places	4.5524	38.764	.000	Accepted
H1h	Avoiding eating out	3.9462	17.727	.000	Accepted
H1i	Paying attention to news related to Covid-19	4.1275	21.577	.000	Accepted
H2	Designating to postpone travel plans to destinations with high cases (red zone areas)	4.4788	29.506	.000	Accepted
H3	Going to travel to the nearest destination	4.4504	30.810	.000	Accepted
H4	Avoiding popular tourist destinations, Hotels, Cafes, or Restaurants	3.7507	12.337	.000	Accepted
H5	Preferring attractions, hotels, cafes, or restaurants with natural and outdoor nuances	4.1756	19.913	.000	Accepted
H6	Avoiding group trips	4.2720	24.761	.000	Accepted
H7	Avoid traveling by public transportations	4.4504	30.055	.000	Accepted
H8	Considering standard health protocols at attractions, hotels, cafes or restaurants	4.7337	48.169	.000	Accepted

Source: Processed Data

Table 3 shows that the results of this study supported the 16 proposed hypotheses. This was proved by the fact that the t-count of each hypothesis was greater than the t-table 1,967 with a significance value less than 0.05. Therefore, all proposed hypotheses were accepted.

Discussion

This study aims to analyze changes in tourist behavior or attitudes towards tourism consumption as well as hygiene and safety factors during the Covid-19 pandemic to identify their expectations related to health risks. The results of this study supported all proposed hypotheses.

It was discovered that during the Covid-19 pandemic, tourists that traveled out of town generally spent the night at a hotel or inn, visited attractions, as well as had a meal at a cafe, restaurant, or similar places. It indicates that the pandemic was unable to cut off their tourist interest. Some traveled across borders, both for urgent matters and sightseeing. However, regarding the hygiene and safety factors, the public realized the importance of health protocols, such as using masks, frequent washing of hands, always providing sanitizers, physical distancing, avoiding direct interactions with other people, crowded places and eating out, limiting travel, and paying attention to news related to Covid-19 issued by the government and related institutions as an effort to prevent the spread of the virus. Therefore, any travel made during the pandemic was carried out with caution and the prioritization of prevention procedures.

Concerning changes in tourist behavior towards tourism consumption during the pandemic, the results prove that they tend to delay travel plans to areas with high Covid-19 virus infections (red zones). They prefer tourist destinations that are closer to their residences. The Covid-19 pandemic has negatively impacted their desire to travel far from home, such as avoiding cross-border movements.

The anxiety and fear of being contaminated or contracting the virus from crowded places motivate many tourists to avoid popular destinations. Traveling to places with fewer visitors seems to be a new trend during the pandemic, as they offer more privacy and customization. The tourists usually focus on natural, ecologic, futuristic, and outdoor attractions, hotels, cafes, and restaurants. This is also

supported by the surveyed data acquired in this study which shows that 68.3% prefer natural tourism destinations (ecotourism, maritime, marine) balanced with a culinary tourism preference of 68%.

Based on the results of this study, Covid-19 has an impact on the tendency to avoid traveling in groups besides family members, including temporarily postponing such movements. In addition, there is also the fear of being in a crowded, closed space in public transportation (buses, boats, etc.), which is considered a high risk of contracting the virus. This fact has encouraged tourists to travel in private vehicles. The Covid-19 pandemic also prioritizes the quality of public services. Tourists' awareness of health risks makes them pay more attention to sanitation hygiene standards and their application in public spaces, such as ports, airports, stations, attractions, hotels, restaurants, and malls.

Faced with the potential risk of being infected with the virus, tourists are adopting new ways of practicing tourism consumption. The results of this research are in line with previous studies, which are illustrated in several cases, including, cancellation of trips (Huang & Min, 2002), traveling by car (Fall & Massey, 2005), preventing physical contact with people, preferring outdoor activities (Wen et al., 2005), taking short trips, visiting neighbouring tourism objects (Fuchs & Reichel 2006; Lo et al., 2011; Li & Ji, 2003), and paying more attention to hygiene factors, as well as ecotourism preference (Higgins-Desbiolles, 2020).

Implication

The Covid-19 pandemic has been proven to be unable to stop tourists' determination to go on tourism. Analysis of attitudes related to hygiene and safety factors and changes in behavior towards tourism consumption during the pandemic indicated that their expectations were associated with health risks encountered during the new normal era. As an implication, the results practically described this industry as being safe and secure during the Covid-19 pandemic. Understanding fluctuating tourist behavior is a context that guides adequate responsive strategies and actions of marketers and tourism destination managers in the recovery of this industry during this crisis.

Covid-19 pandemic brings tourists to a new normal status in all life activities. It affected tourists' travel habits, and they tend to minimize risks in determining their destinations. Tourist awareness of health risks and protocol systems, including hygiene and safety standards, in tourist destinations are factors that influence tourist travel decisions. The Covid-19 pandemic has changed the view of the tourism industry. The willingness to continue to travel, spend the night in hotels, visit tourist attractions, and enjoy eating at cafes and restaurants even in different contexts has a positive impact on the sustainability of this industry.

In responding to tourists' eagerness, the tourism industry needs to create trust by strengthening the positive image of destinations as safe and convenient in this pandemic and new normal conditions. Tourism business actors, such as tourist attraction objects, facilities, transportation, accommodation, cafes, and restaurants, need to strengthen the Covid-19 prevention mechanism by improving hygiene conditions, wearing masks, disinfecting tourist attractions, and supporting facilities. They also need to provide sanitizers, limit the capacity of tourist attractions, regulate space for visitors, and minimize interaction in the service process by converting it to a digital platform.

There is also tourists' tendency to avoid group travel, their preference of private vehicles, and avoid traveling in high season. In this condition, tourists are bound to seek more information certainly. Therefore, tourism managers need to focus on media strategies, motivate and build tourists' awareness by changing their perception of travel in the low season, presenting the advantages and opportunities offered such as attractions, activities, services, and offering attractive prices.

The pandemic has changed tourism consumption practices by avoiding crowded destinations and growing sensitivity to natural attractions and outdoor activities. This preference is perceived as an opportunity for the emergence of new tourists attractions for tourism businesses by creating an original destination image based on nature (ecotourism, maritime, marine) and agriculture (agrotourism) that offers privacy and customization. Meanwhile, tourist destinations with mass concepts also need to adapt to these changes, reconsidering the implemented policies. The emergence of this behavior has also been highlighted by Wen et al., (2005) which stated that after the SARS (Severe Acute Respiratory Syndrome) pandemic, there was an increase in environmental awareness accompanied by the demand for ecotourism. Therefore, it is most likely that ecotourism is bound to become more popular. Based on this reason, destinations need to respond to the increasing awareness of the natural environment.

CONCLUSIONS AND SUGGESTIONS

Conclusion

The Covid-19 pandemic triggered major changes in all aspects of social life. Almost all sectors were affected, including the tourism industry, which is the most sensitive and vulnerable to health crises or infectious diseases. The pandemic limited the community's movement, which decreased the number of tourist visits, hotel, and restaurant room occupancy rates, and closure of recreational and entertainment centers. It also has an impact on the tourism supporting sectors and the creative economy, such as transportation.

The pandemic changed consumers' view of the tourism industry towards travel, thereby affecting their behavior in selecting tourist destinations and making consumption decisions. It is difficult to predict their behavior amid this pandemic, while this industry's sustainability depends on the flow of tourists and individual perception. This study aimed to analyze changes in tourist behavior towards tourism consumption, identify and analyze attitudes related to hygiene and safety factors, and potentials that emerged during and after the pandemic.

The results showed that all hypotheses related to tourist attitudes towards hygiene and safety factors and tourism consumer behavior during the Covid-19 pandemic were accepted. Tourists understand the importance of health protocols during the pandemic and are concerned about their implementation. Hygiene and health conditions are essential factors in the selection of tourist attractions.

The pandemic was unable to stop tourists from traveling, although it was done with caution and prioritizing Covid-19 prevention procedures. They tend to postpone travel plans to areas that are highly infested with the Covid-19 virus (red zone areas), avoid visiting popular and crowded tourist destinations, hotels, cafes, and restaurants. Tourists also prefer to travel to places close to their residential areas, in private vehicles, thereby avoiding group trips. They tend to prefer culinary tours or visit tourist attractions with outdoor nuances. Based on this reason, original nature-based destinations (ecotourism, maritime, marine) and agricultural tourism (agrotourism) that offer privacy and customization are potentials that need to be developed.

Suggestion

This study has several limitations, first, the behavioral changes identified are not region-specific. There is no specific geographic context that is defined as a platform for studying behavioral change. Therefore, it is recommended for further research to analyze the tourists' intention concerning a particular region. Second, this study also does not specifically identify certain socio-demographic factors that allow the existence of different behaviors. Further research is suggested to identify specific socio-demographics such as age, gender, etc. Third, this study examines the tourism market in a particular sector. Therefore, there is a need for research aimed to identify tourist behavior to enable industry players to formulate more specific, accurate, and effective recovery strategies according to expectations based on age, gender, region, and tourism sector.

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Systematic Literature Review on Nexus Between Urbanization, Energy Consumption, Economic Growth on Environmental Degradation in Asia

Lai Wei Sieng
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

The complex association between urbanization, energy consumption and economic growth and the impacts on environmental degradation has received multidiscipline scholarly attentions. However there were still insufficient studies that systematically review the existing literature on the study in Asia regions. Hence the present article conducted a systematic literature review on the nexus between urbanization, energy consumption, economic growth on environmental degradation in Asia regions. The study integrated multiple research designs and the review was based on the publication standard, namely ROSES (Reporting standards for Systematic Evidence Syntheses). Articles for review are selected using Scopus and Google Scholar databases. Based on the thematic analysis, this review has five main themes namely 1) short run impact; 2) long run impact; 3) country-specific studies; 4) regional studies and 5) causal relationship. The study offered several significant contributions for practical purposes and the body of knowledge.

Professional Competencies of Scuba Dive Guide in Malaysia

Kalsitinoor Set
Faculty of Business, Economics and Social Development,
Universiti Malaysia Terengganu, Malaysia

Norlida Hanim Mohd Salleh
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Munira Mhd Rashid
Aslina Nasir
Faculty of Fisheries and Food Science,
Universiti Malaysia Terengganu, Malaysia

ABSTRACT

Scuba diving tourism is one of the fastest and popular tourism sectors stimulating a billion dollars for a global diving destination. Scuba diving tourists are willing to travel worldwide to experience diving activity in any island destinations that offer their underwater attractions. Besides offering the uniqueness of dive sites, the performance of dive guides can influence scuba diving tourist satisfaction. In the attempt to investigate the dive guide professional competencies, this study refers to Activity Competency Model (ACM) to examines the influence of professional competencies among dive guides on dive guiding service quality and diver satisfaction with diving tour packages. This article reports the finding of a study based on 345 scuba tourists who have experienced diving package in Malaysia. This study validates that professional competency among dive guides positively affects service quality and scuba diving tourist satisfaction using Smart Partial Least Square (PLS) software. Implications of the findings are discussed, including the importance of scuba diving operators to provide continuous practical implications among dive guides to acquire their niche market of scuba diving tourists.

Environmental Cost-Benefit Analysis For A Sanitary Landfill

Nik Nor Rahimah binti Nik Ab Rahim
Norlida Hanim Mohd Salleh
Jamal Othman
Norshamliza Chamhuri
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Raised environmental impacts from landfilling requires an operation of a sanitary landfill. However, in most developing countries, the sanitary landfill project appears infeasible due to financial constraint. This study aims to determine the sanitary landfill project feasibility, described by its environmental values of treated leachate discharge, reduction in bad odor intensity, controlled propagation of disease vectors and improved view of the landfill. This study used three-tiered process; non-market valuation, benefit transfer, and cost-benefit analysis- in two study areas in Peninsula Malaysia. The non-market valuation used choice modeling to survey 624 respondents for their willingness to pay towards each environmental values of the sanitary landfill. The analyzed willingness to pay information assigned prices for the environmental values. Benefit transfer identified that the prices of reduction in bad odor intensity (RM2.29 per month) and improved view of the landfill (RM3.59 per month) are the transferable environmental values across the two populations. The transferable environmental values were included in cost-benefit analysis, by inferring them as benefit of the sanitary landfill. The findings show that the inclusion of environmental values in project appraisals increases the chances of implementing sanitary landfills. This study provides a new approach to address the environmental concerns in developing countries.

INTRODUCTION

In most developing countries, there are raised environmental concerns from current landfilling practice that includes bad odor, water pollution and disease dispersion (Matheson, 2019). These are not only bothering, but also pose health threats to public health. This requires an operation of a sanitary landfill to mitigate the drawbacks of landfilling activities, parallel to the global sustainable waste management objective. However, due to financial incapability, it appears infeasible for the sanitary landfill project to take place (Aziale and Asafo-Adjei, 2013). This accelerates the need for a new approach to measuring sanitary landfill project feasibility. The norm in sanitary landfill project appraisal only measured according to marketable aspects, overlooking environmental aspects despite solid waste disposal generating environmental concerns. This could underestimate a project's worth, leading to infeasibility. Therefore, this research aims to determine the project feasibility by including the environmental values of the sanitary landfill in project appraisal.

METHODOLOGY

This study applied a three-tiered process to conduct an environmental cost-benefit analysis for a sanitary landfill. Prior to benefit and cost comparison, this study elicited prices for the environmental values through economic valuation by utilizing choice modeling method. To only consider accurate environmental values in project appraisal, this study proposes an alternative to improve the findings by using benefit transfer as a means to use significant environmental values in cost-benefit analysis. The simultaneous use of the three-tiered process: non-market valuation, benefit transfer, and cost-benefit analysis are as illustrated in Figure 1.

The study areas were the neighboring districts of Kota Bharu and Bachok in Peninsular Malaysia, on the basis of their mutual dependency of a "crude dumping" landfill for final waste disposal. With undue environmental impacts from current landfilling activities, both districts are facing the aforesaid dilemma for decades and the proposed sanitary landfill would provide improved solid waste disposal service for households in both districts. Under choice modelling conduct, 624 households were approached in a two months long survey process to elicit their willingness to pay towards four environmental values of the sanitary landfill described by treated leachate discharge, reduction in bad

odor intensity, controlled propagation of disease vectors and improved view of the landfill. The willingness to pay information were then analyzed into multinomial logit models and nested logit models to assign prices for the environmental values. Benefit transfer examined the monetized environmental values held by populations in Kota Bharu and Bachok to identify transferable environmental values across the two populations. Transferable environmental values were included in environmental cost-benefit analysis, by inferring them as benefit of the sanitary landfill.

FIGURE 1: The Three-Tiered Process
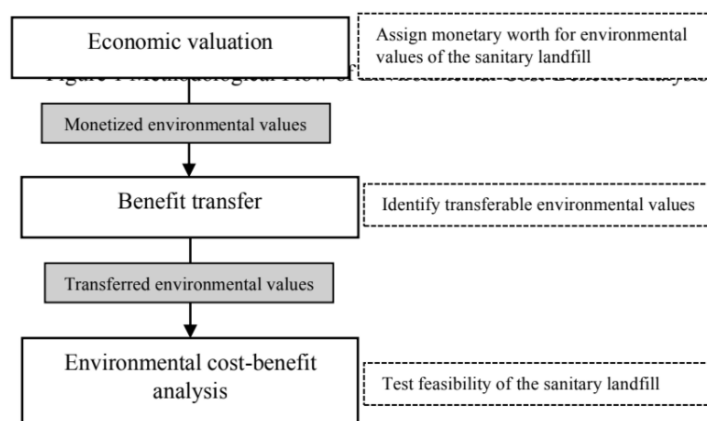
FINDINGS

Economic Valuation

Table 1 shows the assigned monetary worth for each environmental value of the sanitary landfill that was derived from the regressed multinomial logit and nested logit models. The prices placed for treated leachate discharge, reduction in bad odor intensity, and improved view of the landfill are generally below RM5 per month. The price held by controlled propagation of disease vectors is significantly higher compared to other environmental values.

TABLE 1: The Assigned Prices for the Environmental Values of the Sanitary Landfill

Attributes	Multinomial Logit Model		Nested Logit Model	
	Kota Bharu	Bachok	Kota Bharu	Bachok
Treated leachate discharge	2.87	3.66	2.87	3.65
Reduction in bad odor intensity	2.44	2.29	2.68	2.28
Controlled propagation of disease vectors	12.63	10.66	13.33	10.67
Improved view of the landfill	4.24	3.59	4.64	3.58

Note: Parentheses indicate confidence interval for the implicit prices
*Significant at 10 % level ** Significant at 5 % level *** Significant at 1 % level.
Source: Survey, 2018

Benefit Transfer

Benefit transfer captures the transferability in the prices of reduction in bad odor intensity (RM2.29) and improved view of the landfill (RM3.59) between Kota Bharu with Bachok. The transferable prices were aggregated and were inferred as additional solid waste management fees, with regard to sanitary landfill implementation in environmental cost-benefit analysis.

Environment Cost-Benefit Analysis

The environmental cost-benefit analysis assessed the feasibility of two solid waste disposal options, "crude dumping" landfill (status quo) and sanitary landfill—with a 25-year lifespan by using discount rates of 5 % and 10 %. The accumulated net present values of the sanitary landfill were RM50,264,040

and RM32,618,078 with a benefit-cost ratio of 1.50. These results as shown in Table 2 indicate that the sanitary landfill implementation is feasible. Meanwhile, the analysis on the crude dumping landfill showed infeasibility outcomes for both net present values and benefit-cost ratios.

TABLE 2: The Results of the Environmental Cost-Benefit Analysis

	Discount rates	
	5%	10%
Crude Dumping Landfill		
Net Present Values	-16,604,762	-10,089,451
Benefit Cost Ratio	0.82	0.83
Crude Dumping Landfill		
Net Present Values	50,264,040	32,618,078
Benefit Cost Ratio	1.50	1.50

DISCUSSION

The results of the study prove that the overlooked environmental aspects during project appraisal can increase sanitary landfill project feasibility. This will provide examples for policymakers on using environmental values to compare the costs and benefits associated with sanitary landfill projects. This approach offers a new hope to increase the chances of implementing sanitary landfills amid financial constraints. On a larger scale, it is hoped to abolish barriers to achieving better solid waste disposal in developing countries for a better environment.

CONCLUSION

The approach proposed in this study to include environmental aspects into benefit and cost consideration in a project should not be limited to the case of improving waste disposal. There are many environmental-related projects and policies that require re-evaluation due to the overlooked environmental aspects during appraisal. Hence, proper methodology development is necessary to improve the efficacy of this approach.

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Technology Acceptance as Consumer Adoption on Online Grocery Shopping

Seprianti Eka Putri
Faculty Economics and Business,
Universitas Bengkulu, Indonesia

ABSTRACT

In today's digital marketplace, buying groceries online is vital. Consumers, on the other hand, are adopting through one shopping experience. This research aims to use the Technology Acceptance Model to explain customer behavior in the online shopping sector. Customers perceive online grocery shopping as interacting with their web page interface. The number of research samples was 215 through online questionnaires with analytical methods using SEM AMOS to determine the variables that affect the purchase of foodstuffs online and the positive relationship between variables. The findings reveal a positive relationship between perceived usefulness (PU), perceived ease of use (PEOU), and behavioral intention (BI). The final scheme has the characteristics of a simple path model with a latent construct sequence where perceived useful PEOU has a positive effect on PU and BI. The perceived benefits of shopping for groceries online have a direct effect on the intention to purchase. The perceived benefits of shopping for groceries online directly influence purchase intentions, which may generate interest in buying food online.

Keywords: Online Grocery Shopping; Consumer Adoption; TAM

INTRODUCTION

The internet and new technologies are rapidly expanding and have transformed consumers' daily lives. The fact that the internet and technology have changed the way people buy goods and services has contributed to the appeal of online shopping. An online grocery is a business approach used by retailers or supermarkets to sell their items. Global e-commerce sales hit 1.9 trillion US dollars in 2016, but forecasts predict that this figure will rise to 4.06 trillion US dollars by 2020. (Statista, 2017). In 2013, about 67 percent of EU internet users shopped online (Eurostat, 2017). According to with Indonesian E-Commerce Association (IdEA), purchase intention of online grocery products is through e-commerce in 2014 reaches up to 24 percent, which is lower than consumer intention to purchase other product classifications such as fashion product 78 percent, mobile 46 percent, electronic product 43 percent, and book and magazine 39 percent. Numerous product categories, such as fashion and electronics, maybe easily offered using e-commerce networks. Conversely, another product category, such as grocery products, is still unknown to the general public. Nielsen founded that in 60 countries studied, a quarter of respondents order wholesale products online, and more than half 55 percent are willing to do so in the future (Nielsen, 2015). OGS is a crucial determinant of corporate and research interests (Monsuwe et al., 2004; Kurnia and Chien, 2003; (Munson et al., 2017). Analyzing customer motivations and restrictions for online shopping is critical for businesses. Monsuwe et al. (2004) identify four major areas in which comprehension is critical. These are strategic judgments, as well as technological, marketing, and website design considerations.

This research evaluates these aspects and identifies the defining areas for this study in the following paragraphs. Due to service difficulties (perishability of grocery goods and complexity of service provision) and administrative concerns, OGS is a time-consuming operation for businesses planning and commitment from management. (Weber & Badenhorst-Weiss, 2016). The successful implementation of online grocery shopping technology assistance is critical in the world of technology. On the corporate side, wholesale stores fail in the market owing to a lack of operational efficiency and inadequate logistics as a result of weak control over physical and information flows. (Cagliano et al., 2017). On the customer side, Configuring the technology and design of the website to meet consumer wants and desires is important. The quality of website design, especially ease of navigation, access, loading time, content utility, and attractiveness, has a significant influence on customer behavior. This study focuses on the topic of website design to determine the best user interface for online pages. This research is also important in marketing decisions when focusing marketing tools on certain customer categories. OGS services are provided by online and traditional store businesses (hybrid companies). Maintaining customer satisfaction in the case of a hybrid company is essential to handle all sales channels

efficiently. (e.g. website, traditional store, call center). Therefore, multichannel customer management is an emerging strategic area of decision-making for marketers of hybrid companies these days. Effective design, deployment, and evaluation of channels to enhance customer value through effective customer acquisition and development are perceived as key marketing decisions. Researchers are especially interested in the behavior of online grocery shoppers. For example, the online brand selection is nearly equivalent to typical buyer behavior in traditional stores (Anesbury et al., 2016). Online grocery websites, on either side, typically sell local, fresh, and tasty food, which benefits customers who wish to support local production and communities. (Miškolci, 2017). The appearance and capabilities of internet technologies produce differences in buying behavior between online and traditional purchasing arrangements.

Online shoppers, for example, spend more on fresh products than offline consumers, despite the belief that people are scared to shop for fresh products online (Munson et al., 2017). Customers in the retail industry today are faced with unique technology such as self-checkout (Orel et al., 2014) portable touch scanners (Nathalie and Djelassi, 2016), and electronic shelf labels (Soutjis et al., 2017). There are also advancements related to e-commerce environments (Reinartz et al., 2011). Its acceptance can be described as behavior that increases or promotes (supports) the use of technology rather than prevents or reduces (resistance) its use (Huijts et al., 2012). Customer acceptance of technology is influenced by various factors. The Technology Acceptance Model can be used in this study. It is commonly used to assess the impact of system attributes on information system acceptability (Davis, 1989). The purpose of this study is to explain consumer behavior in the context of online grocery shopping. To do this, the TAM framework is applied to online grocery purchase intentions through the use of a structural equation modeling approach for theory testing. This article examines the adoption of technology among online grocery shoppers. It examines customer perceptions, attitudes, and intentions using the technology acceptance model. The target audience is specifically internet clients who have purchased food online in Indonesia.

LITERATURE REVIEW

Online Grocery Shopping Models

Models reflecting online grocery buying acceptability have previously been established, but these models have not been explored using Confirmatory Factor Analysis (CFA). Because CFA was not utilized, researchers were unable to examine the contribution of each scale item as well as consider how effectively the scale measures the idea (Hair et al., 2010). As a result, researchers in the following models did not know how well the model fits the data. These models, however, are included since they are founded on TAM assumptions and work with PU, PEOU, BI, and other variable elements. It is possible to incorporate the following into models representing OGS (not evaluated by CFA. The first OGS model has developed, the Online Wholesale Shopping Acceptance Model. This model is proven by using Pearson correlation, multiple regression, Biserial Correlation, and the application of TAM in measuring the adoption of OGS. In this model, it has been confirmed that PEOU has a direct effect on PU OGS (Kurnia & Chien, 2003).

When the variables for the OGS model (visibility, social influence, and risk perception) were examined, only the visibility factor had a favorable effect on attitudes toward the usage of OGS. The factor's visibility suggests that the more frequently potential adopters watch OGS being used by others, the more likely they are to develop favorable attitudes regarding its use. e- Grocery Acceptance Model is the second OGS model (Wolf, 2012). The proposed model is investigated via mediator analysis. The PU component, which several researchers have shown to be a better predictor of BI than PEOU, has not been studied at all in this model. This model is based on the original TAM model, with the missing PU factor believed to represent a model that can interfere with the investigation's conclusions. This model was updated for OGS since the choice of PEOU as a more critical criterion than PU was insufficient as electronic customers' ability to operate the system increased with repeated transactions. The model proposed various elements that could be found as leading to a positive attitude toward OGS, including perceived time pressure, perceived convenience, perceived offline enjoyment, perceived risk, positive experience, and situational considerations.

Technology Acceptance as Consumer Adoption on Online Grocery Shopping

OGS is at the frontline of company and scientific interest today. Assessing customer motivation and restriction for online purchases is incredibly crucial for organizations. Previous research has identified four major areas in which comprehension is critical. Monsuwe et al. (2004), These are strategic, technological, and marketing initiatives. Due to service difficulties (perishability of grocery goods and complexity of service provision) and managerial concerns (planning and commitment from management), OGS is a time-consuming task for businesses (Weber and Badenhorst, Weiss, 2016). As a result, the time-based competition (TBC) model could be a viable competitive approach for online food retailers. TB deals with applicable ability as a source of competitive advantage (faster delivery times and/or higher frequency for delivering new items to the market or upgrading existing ones. (De Toni & Meneghetti, 2000). The successful installation of technical support for online grocery shopping is critical in the field of technology. Companies with poor operational and logistical efficiency as a result of physical controls and inefficient information flow will prohibit wholesalers from flourishing in the market (Cagliano et al., 2017). It is important to configure website technology and design to meet customer demands and desires. The quality of website design, such as ease of navigation, access, load times, content utility, and attractiveness have a significant influence on customer behavior. (Al Qeisi et al., 2014). This study focuses on website design to optimize the user interface of web pages and information for making marketing decisions when targeting marketing tools to specific customer segments. Online trading companies (e retail), as well as traditional shop companies, provide OGS (hybrid company) services. As kind of a result, multichannel customer management is a new strategic decision-making area for hybrid corporate marketers today. Key marketing decisions are regarded to be the effective design, deployment, and evaluation of channels to increase customer value through effective customer acquisition and development. (Neslin & Shankar, 2009). Researchers are extremely keen on the behavior of online grocery shoppers. For example, the online brand selection is nearly equivalent to typical buyer behavior in traditional stores (Anesbury et al., 2016). However, online grocery stores typically sell local, fresh, and flavorful food, which appeals to buyers who wish to support local producers and communities (Miškolci, 2017).

Theoretical base of the Technology Acceptance Model

TAM, created by Davis (1987), provides the foundation for study into why users accept or reject information technology, as well as how to maximize user acceptability through the careful selection of system design characteristics. This paradigm has steadily expanded over time, including hypothesized and empirically tested modifiers such as TAM2, TAM3, and extended TAM for e-commerce. TAM2 discovers shared drivers of PU through mapping conceptual improvements in modeling technologies. TAM3 defines also incorporates the TAM2 and PEOU determinant models, yielding an integrated technological acceptance model. TAM3 also integrates the TAM2 and PEOU determinant models, ensuing in an integrated technological acceptance model (Venkatesh & Bala, 2008). TAM was created for e-commerce to examine the impact of PU, PEOU, attitudes, and customer behavior variables. The model demonstrates that attitude is a strong direct predictor of e-commerce acceptance. Furthermore, TAM plus attitude factors explain an estimated 9% of the variance in e-shopping intentions. (Ingham et al., 2015). An individual's inclination to respond positively or unfavorably to items, people, institutions, events, or other discriminatory characteristics of the individual's reality is referred to as their attitude (Ajzen & function, 1989). PEOU and PU typically have a largely beneficial influence on attitudes in TAM-based investigations (Lim & Ting, 2014).

Perceived Usefulness and Perceived Ease of Use

Based on his earlier study, Davis identified two determinants: perceived usefulness and perceived ease of use, which are critical for understanding what motivates consumers to adopt or reject information technology (Davis, 1987). In the original TAM, PU was defined as the degree to which a person believes that utilizing a certain system would improve his or her job. In the context of online wholesale buying, we can conclude that the individual behavioral intentions of online wholesale buyers believe that the system will be profitable in their daily lives. The original TAM defined perceived ease of use as someone believing that using a particular system would make things easier. Davis (1989).

Analogically, it is assumed that the case of online grocery shopping as the intention of the individual behavior of food customers who use the website to order food online is simple. Davis asserts that PEOU has a causal effect on PU, which is supported by other studies. (Davis, 1987; Venkatesh and Davis, 2000; Gefen et al., 2003; Rauniar et al., 2014). PEOU can have a strong direct effect on PU since

two systems conduct the same set of functions and the user would have to choose which one of these is easier to use. Davis created and tested new assessment scales for perceived usefulness and perceived ease of use, two distinct characteristics that influence computer usage. He found that usability was substantially more related than the simplicity of use. As a result, users are asked to use applications primarily because of the functions it performs for them, and how easy or difficult it is to get the system to perform these tasks. (Davis, 1989). Other researchers confirmed the higher association between perceived usefulness and behavioral intention (BI), as opposed to BI and perceived ease of use. (Ingham et al., 2015; Venkatesh and Bala, 2008).

The Technology Acceptance Model as a customer adoption model in this OGS involves the formulation of numerous hypotheses, as shown in figure 1.

H_1: Perceived usefulness has a positive effect on behavioral intention on buying groceries online.
H_2: Perceived ease of use has a positive effect on behavioral intention on buying groceries online.
H_3: Perceived ease of use has a positive effect on perceived usefulness.
H_4: Perceived usefulness has a positive effect on attitude towards buying groceries online.
H_5: Perceived ease of use has a positive effect on attitude towards buying groceries online.
H_6: Attitude towards buying groceries online has a positive effect on behavioral intention toward buying groceries online.
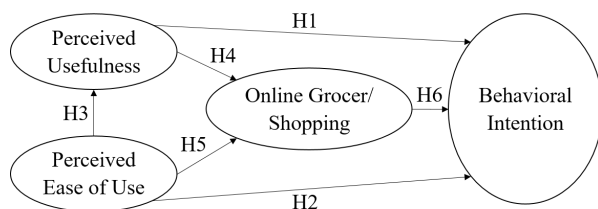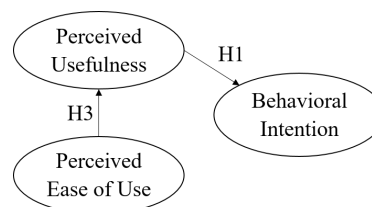
FIGURE 1: Research Framework

FIGURE 2: Modified Model

RESEARCH METHODE

This study uses a positivistic research philosophy through a logical approach through testing previous ideas and an empirically validated technology acceptance model. Positivism is a research philosophy that develops hypotheses based on existing theories and then collects data for analysis. (Saunders et al., 2009). Non-probability sampling chooses elements at the researcher's option, whereas probability sampling chooses sample units at random. (Cooper et al., 2006) Sampling technique in which parts of the population have an unknown or expected opportunity to be chosen as sample subjects (Sekaran, 2006). The sampling design is used in the category of non-probability sampling. Purposive sampling used in this study were consumers aged 17 years and over who had shopped for groceries online. The distribution of online questionnaires via online Google forms on social media platforms such as Whatsapp and Instagram is the data collection approach. The number of respondents 215 eligible for processing. The respondent consisted of 76 men (35.34%) and 139 women (64.6%) with a variety of ages between 17 and 55 years, predominantly aged 20-45 years.

TABLE 1: Measurement Items

Construct	Measurement	Source
Perceived Usefulness (PU)	I save time while doing grocery shopping online.	Davis (1987)
	Using the web for food shopping makes my life easier.	Davis (1987)
	Overall, I find the grocery buying website to be beneficial in my life.	Davis (1987)
Perceived Ease of Use (PEOU)	It was simple for me to learn how to utilize the website for online grocery shopping.	Çelik & Yilmaz (2011)
	It is simple for me to recall how to do activities required for grocery shopping utilizing the website.	Davis (1987)
	Using the website can improve my skills.	Davis (1987)

TABLE 1: Measurement Items

Construct	Measurement	Source
Attitude on grocery shopping (AOGS)	Overall, I find the grocery buying website to be beneficial in my life.	Hansen et al. (2004)
	Using a website for grocery shopping is a good idea.	Childers et al. (2001)
	Shopping for groceries on the website is pleasurable.	Childers et al. (2001)
Behavioral Intention (BI)	When I have internet access, I will go grocery shopping.	Venkatesh & Davis (2000)
	I want to use the website as soon as feasible for grocery shopping.	Çelik & Yilmaz (2011)
	In the future, I plan to do a lot of my grocery shopping online.	Çelik & Yilmaz (2011)

RESULT DISCUSSION

It is usual practice to test the measuring model (construction indicators) before the structural model (theory testing). As a result, the first component of the results portion of this study displays the measurement model's reliability and validity. It assists in determining whether the measurement has satisfactory psychometric qualities (Fornell & Larcker, 1981) and whether the construct indicators used are trustworthy and valid (Anderson & Gerbing, 1988). Except in one scenario where there is a tiny variation from the standard, the measurement model assumptions must generally match the basic criteria. As a result, the trend of buying groceries online can be studied further. Internal consistency (Cronbach's alpha, composite reliability) and convergent validity (mean-variance extracted) are reported in table 2. Cronbach's alpha should be at least 0.7 (Nunnally, 1994) composite reliability scores between 0.7 and 0.9 are acceptable, and an average variant extraction rate greater than 0.5 is preferred. (Hair et al., 2016). Table 3 shows the results of hypothesis testing with the level of statistical significance was set at 0.001.

TABLE 2: Hypotheses testing

Hypotheses	Stand. Estimate	P-Value
H1: PU –> BI	–0.300	0.501
H2: PEOU –> BI	–0.301	0.060
H3: PEOU –> PU	0.790	***
H4: PU –> ATT	0.736	***
H5: PEOU –> ATT	0.240	0.002
H6: ATT –> BI	1.502	0.005

*** P-value < 0.001

TABLE 3: Hypotheses Testing in Modified Model

Hypotheses	Stand. Estimate	P-Value
H1: PU –> BI	0.868	***
H3: PEOU –> PU	0.801	***

*** P-value < 0.001

The research examined the impact of the intention variable on real customer choice and omitted ATT not just statistical assumptions that would lead us to adjust the model by removing BI. initially, the attitude and perceived usefulness should serve as a mediator. However, it is known that PU has statistical significance as a relationship between PEOU and BI. It is not necessary to proceed with an estimate of the fit of the model before modifying it. Since PEOU has a favorable effect on PU, the third and first hypotheses support the model. This suggests that there is a relationship between the PU and BI endogenous variables, which can be used to create a modified model. (figure.2). The simple path model replaces the mediation effect in the original model. The model created with SEM AMOS was updated when the second hypothesis was approved (table 4). To create PU and endogenous BI latent variables, the recommended model employs exogenous and endogenous PEOU constructs. Table 5 shows the model

is good with all the requirements in the measurement standard. The analysis used the new model to determine the overall model fit. It was calculated using standard measurement indices provided by SEM guidelines. (Hair et al. 2017; Schumacker and Lomax, 2016).

TABLE 4: Hypotheses Testing in Modified Model

Hypotheses	Stand. Estimate	P-Value
H1: PU –> BI	0.868	***
H3: PEOU –> PU	0.801	***

*** P-value < 0.001

TABLE 5: Model Index

Fit Index	Measured Level	Recommended Level
X2/df	2.10	<3
GFI	.95	>.95
AGFI	.96	>.95
RMSEA	.05	<.07
CFI	.99	>.95
TLI	.98	>.95

Previous studies have investigated the predecessors of online shopping (Al-Qeisi et al., 2014). People's motivation to buy products online in general (y Monsuwé et al., 2004) and technology adoption. However, little research has used the TAM framework to examine the relationship between consumers' perceptions of the usefulness of technology (interfaces) in their daily lives, ease of use of these technologies, attitudes toward technology, and, eventually, behavioral intentions online shopping. (Lim and Ting, 2014). This model is quite widespread in many online purchasing applications, according to research (Gefen et al., 2003; (Ingham et al., 2015). However, the TAM framework is implemented for the intention of buying foodstuffs online among Indonesian consumers. This study demonstrates that the TAM framework can be employed when making online food purchases. In line with Davis (1989), the researcher has proven the association between perceived usefulness (PU), perceived ease of use (PEOU), and the desire to buy food online in the proposed modified model (BI). These data concerning the link between PEOU and PU lend support to the hypothesis that PEOU has a major direct effect on PU (Davis, 1987; Venkatesh and Davis, 2000; Gefen et al., 2003; (Rauniar et al., 2014). The last schema represents a simple path model with a latent construction sequence where PEOU has a positive effect on PU and PU on BI. Although verified as a significant direct predictor of e-commerce acceptance, it was omitted as a significant direct predictor of online grocery purchases. (y Monsuwé et al., 2004).

Discuss crucial factors to consider while drawing arrows between constructs. (Hair Jr et al., 2016). The researcher must choose between theoretical soundness (containing all theoretically supported relationships) and model parsimony (using fewer relationships). As a result, the model parsimony known values statistical and empirical outcomes in this investigation. There are two significant theoretical implications. First, The TAM model was applied to evaluate the interactions between constructs in the OGS domain. Anyone interested in following up on this work can now access the measurement model (single latent constructs with observed variables) used in it. Second, because careless responses were of significant concern to other researchers employing quantitative survey methodologies, some of the respondent's replies had to be excluded from the sample. The research findings have a practical managerial implication in that they provide a deeper understanding of consumer behavior by presenting a model that can be used as the basis for management decision- making. Because perceived ease of use has no direct effect on purchase intentions, straightforward instructions on web pages, a smooth purchasing experience, or task performance do not affect only customers. Social media marketing can be utilized to change people's impressions of the online grocery buying process. Understanding the entire process of purchasing, ordering, and delivering groceries is a critical positive attribute that influences consumers' impressions of ease of use. The apparent advantage of shopping for groceries online is that it plays a significant role in increasing interest in the product.

CONCLUSION

Over the last ten years, online shopping for goods and services has significantly risen. Many buyers choose to purchase online for a variety of products. grocery shopping is one of the most important

categories. After the initial model failed to offer adequate statistical significance, the structural model was updated to suit the data using the general structural equation approach. The final model proposed is consistent with the data because it supports all SEM assumptions that have been made. The change resulted in a different path model. According to the findings of the study, perceived ease of use has no direct effect on purchase intent. The concept of website instructions, a comfortable purchasing experience, or the fulfillment of routine chores online is insufficient. Customers will not buy food online if perceived usefulness is not present. As a result, marketers' efforts should primarily emphasize information about the usefulness of online grocery shopping or improving services to generate appropriate value. Finally, there is a limited review of this area, the exploratory paper contributes to understanding customer behavior in the context of online grocery shopping. The TAM framework is applied to online grocery shopping intentions using the structural equation modeling method. Another important contribution of this research is the involvement of Indonesian customers in the whole model to provide more valuable insights.

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Does Digital Asset Volatility Reflect Consumer Sentiment?

Fathin Faizah Said
Raja Solan Somasuntharam
Tamat Sarmidi
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Mohd Ridzwan Yaakub
Faculty of Information Science & Technology,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

In the era of a borderless economy, social media has been the medium that can reflect digital asset volatility or vice versa. Our study examines the relationship between consumers sentiment on Twitter and Google Trend social media and digital asset market volatility. We analysed six digital asset prices of Bitcoin, Bitcoin Cash, Ethereum, Ethereum Classic, Litecoin, and Ripple from the Coinmarketcap database. We collected user tweets on Twitter regarding digital assets using the Twitter search Application Programming Interface (API); and data related to website searches, news searches, and youtube searches collected from Google Trend data using RStudio software spanned from 1 September 2019 to 31 January 2020. The Generalised autoregressive conditional heteroscedasticity model (GARCH) is used to analyse the volatility of digital assets. We then analysed the relationship between digital assets volatility and users sentiment on Twitter and Google Trend using the Granger causality test. Finally, we construct an impulse response function through a vector autoregressive (VAR) model to predict volatility. Our findings show that Twitter and Google Trend's consumer sentiment fluctuates the Bitcoin cash volatility in the long run. On the other hand, we also found that Bitcoin cash volatility, Ethereum volatility and Ethereum Classic volatility shock fluctuate consumer sentiment on Twitter and Google Trend. It shows that any tweets or search activity of social media users has a significant impact on digital assets volatility in the long run.

Systematic Literature Review on Trust, Security and Fintech Adoption in Banking

Syajarul Imna Mohd Amin
Johan Ariff Jafri
Aisyah Abdul-Rahman
Shifa Mohd Nor
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Fintech-based innovation is crucial for banks to enhance the consumer experience, banking efficiency and productivity. Despite Fintech opportunities, trust and security have become the fundamental hindrance to Fintech potentials that could erode the confidence in the banking system. Fintech literature is emerging, but the systematic review of existing studies on the adoption of fintech in banking is insufficient. The present study conducted a systematic literature review on the role of trust and security in influencing customers' intention to adopt Fintech services in banking. It applies the ROSES (RepOrting standards for Systematic Evidence Syntheses) approach based on two central databases: Web of Science and Scopus. The thematic analyses suggest seven main themes, namely 1) Technology Acceptance (UTAUT) determinants; 2) risk; 3) trust; 4) quality; 5) competitive advantages; 6) personal, and 7) others. There are 34 sub-themes under the seven themes. The study offers significant policy contributions for practical and academic implications. The findings emphasize the importance of integrating the customers' perspective into strategies adopting fintech in banking by 1) considering customers' needs and interest in business policies development, 2) strengthening risk management framework and services quality. It also highlights potential areas and contents for future studies.

The Effect of Information Technology Usage on Small Scale Industry Performance (Case Study: Small Scale Industry in Palembang City)

Bernadette Robiani
Mukhlis
Hamira
Department of Economics,
Sriwijaya University, Indonesia

ABSTRACT

This study aims to determine the effect of the use of information technology on the performance of small-scale industry by taking a case study in Palembang, capital city of South Sumatera Province in Indonesia. The data used are primary data from 51 samples from the food industry and the weaving and fashion industry in the city of Palembang. The analysis technique used is a simple regression method to determine the effect of information technology on profits. Based on field data it is known that the information technology used is computers and the internet which is used for marketing, promotion and administration. Regression results indicate a positive and significant effect between information technology and small industry profits in the city of Palembang.

Keywords: Information Technology, Profit, Small Scale Industry

COVID-19's Effect on Consumer Behavior Towards the Use of Electronic Money Perspectives

Mudji Rachmat Ramelan
Lis Andriani
Mirwan Karim
Faculty of Economics and Business,
University of Lampung, Indonesia

ABSTRACT

The Covid-19 epidemic has altered virtually every facet of life. The virus's rapid spread via droplets directly from confirmed Covid-19 patients, as well as via surface intermediaries such as metal, wood, plastic, cardboard, aluminium, and glass, has altered consumer preferences for contactless payment methods, such as electronic payment channels via Fintech services.

This study aims to analyze consumer intentions and behavior in Fintech services during the Covid-19 pandemic by collaborating the Perceived Health Risk variable with The Unified Theory of Acceptance and Use of Technology (UTAUT). The research was conducted through a survey method by distributing online questionnaires to 300 consumers who used fintech services during the Covid-19 pandemic. The research hypothesis was tested using the Structural Equation Model data analysis technique on the Amos application. The study results prove that Perceived Health Risk and two UTAUT variables, namely Performance Expectancy and Facilitating Conditions have a significant effect on Behavioral Intention and Use Behavior. Meanwhile, Effort Expectancy and Social Influence proved to have no significant effect. Thus, the high potential risk of being infected with a virus for using conventional payment instruments, Performance Expectancy, and Facilitating Conditions from Fintech application services are factors driving the intention and behavior of using Fintech services during the Covid-19 pandemic.

Keywords: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioral Intention, Use Behavior, Perceived Health Risk

INTRODUCTION

The Covid-19 pandemic has triggered major changes in all aspects of people's social life, especially health and the economy both regionally and globally. Covid-19 has infected millions of people, caused hundreds of thousands of deaths, and its spread has continued to increase worldwide since last December 2019. In March 2020, the World Health Organization (WHO) declared that the Covid-19 outbreak had become a pandemic and called on countries to take immediate and aggressive action to contain the spread of this virus. In Indonesia, from March to December 2020 the number of confirmed cases of Covid-19 and death cases increased every month, in December 2020 the number of confirmed cases reached 743,198 cases, 611,097 cases recovered, and 22,138 deaths.

The spread of the Covid-19 virus is transmitted by infected people through droplets of saliva released when talking, coughing, or sneezing (European Center for Disease Prevention and Control-ECDC, 2020). Bhargava's (2020) study published on WebMD shows that the Covid-19 virus can live on surfaces, such as metal, wood, plastic, stainless steel, cardboard, aluminum, glass, and other objects, where resistance is affected by cold, heat, and light. Sun. While humans are likely to touch these surfaces every day, the potential risk of being infected with the virus is even greater. As a result, people are afraid to touch any surface because it can be a source of transmission of the Covid-19 virus.

The surfaces that are most commonly touched by people in their daily life include payment instruments, such as paper money, payment cards, and ATM/CCDM machines (Cash Deposits and Checks), which are surfaces that are not safe to touch during the COVID-19 pandemic. This situation encourages consumers to look for ways to reduce the use of cash in their financial transactions and activities. Consumers are changing their payment methods to contactless payment methods, such as electronic payment channels or electronic wallets which are seen as secure payment methods and help avoid physical contact with surfaces (AP, 2020).

Various business outlets in Indonesia also call on consumers to make non-cash and contactless payments to avoid the possible spread of Covid-19. In addition, the central banks of various countries in the world also place banknotes into quarantine procedures to reduce the possibility of Covid-19 infection

(AP, 2020). For the financial sector, this is an opportunity to encourage consumer behavior towards cashless, banks, and digital money or commonly referred to as Fintech (William Fry, 2020). Based on data released by McKinsey & Company in its report entitled Digital Banking in Indonesia: Building Loyalty and Generating Growth (2019), it states that the penetration rate of using financial technology services in Indonesia until 2019 is 5%. This figure is still considered low when compared to other countries in Asia. However, Bank Indonesia data recorded in November 2020, shows that Indonesian consumer sentiment in the use of electronic money during the Covid-19 pandemic has increased compared to before the pandemic.

The value of electronic money transactions reaches Rp. 163,433 trillion, while the amount of electronic money in circulation reached 410,656 million units during the 2020 pandemic. Of the several financial services offered by financial technology, peer-to-peer lending and payment gateway services were the most widely used by the Indonesian people during the Covid-19 pandemic. The existence of this financial technology service is not only able to prevent the public from being infected with the Covid-19 virus, but also makes financial services and transactions faster and easier, which can be done anywhere without being limited by space and time.

The public's understanding of financial technology services and the potential risk of being infected with a virus during the Covid-19 pandemic is the starting point for this research to analyze the extent of consumer interest and behavior in using financial technology services during the Covid-19 pandemic, by applying The Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT itself is a technology adoption model that applies theories from psychology, behavior, and social sciences to explain the intention to adopt and use technology, such as Theory of Reasoned Action or Technology Acceptance Model through four main dimensions as determinants of intention and use, namely Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions.

In addition, the researcher views it is important to see the extent of the influence of health risk factors on the intention and use of financial technology services in the current Covid-19 pandemic situation, researchers collaborated on the UTAUT theory with the Perceived Health Risk variable as a specialty in this research model. The results of this study are expected to enrich the scientific treasures related to the development of The Unified Theory of Acceptance and Use of Technology (UTAUT) theory which is applied to technology-based finance.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a theoretical model of acceptance of information technology proposed by Venkatesh et al, (2003). Initially, UTAUT focused on seven independent constructs, namely performance expectancy, effort expectancy, social influence, facilitating conditions, computer self-efficacy, anxiety, and attitude toward using technology. However, only four constructs have been shown to be significant, namely performance expectancy, effort expectancy, social influence, facilitating conditions which explain behavioral intentions to use technology (behavioral intention) and actual use of technology.

Based on the explanation above, the definitions of the four UTAUT constructs according to Venkatesh et al., (2012) are as follows; 1. Performance Expectancy (Performance Expectancy) The degree to which an individual believes that using a technology system will help him or her to gain an advantage in job performance. 2. Effort Expectancy The level of ease associated with the use of a system. 3. Social Influence The extent to which an individual considers a technological system important, and others believe that the individual should use a new system. 4. Facilitating Conditions The extent to which an individual believes that the organizational and technical infrastructure supports the use of a system.

Perceived Health Risk

Risk plays an important role in consumer behavior, and has a contribution in explaining consumer behavior in the process of information seeking and decision making. There are two theoretical perspectives on risk centered on the uncertainty of decision outcomes as well as on the costs or consequences of those outcomes (Barnes et al., 2007). While perceived risk is a central construct in many theories of health behavior and is often referred to as the perceived likelihood, vulnerability, or vulnerability (Brewer et al., 2004) and heath risk refer to the perceived likelihood of a person becoming ill. Furthermore, in the context of the concept of technology acceptance, the risk is a form of lack of trust,

and most believe that perceived risk is the main factor that negatively affects technology adoption (Kesharwani & Bisht, 2012; Sikdar et al., 2015).

In this study, we determined the perceived health risk variable as the danger of contracting the virus when transacting using conventional payment instruments such as paper money or payment cards, and ATM/CCDM machines (Cash Deposit and Check Machines) that have the opportunity for physical contact with humans. Perceived health risk shows a person's perception of health hazards that may be experienced when transacting using conventional payment instruments during the Covid-19 pandemic. Bansal et al., (2010) and Khedmatgozar & Shahnazi (2018) state that the level of perceived risk is the most important factor influencing the adoption of electronic services. Meanwhile, during the Covid-19 pandemic, health and safety factors are the main concern of the community. As a result, health risks are considered by consumers in transactions during this Covid-19 pandemic.

Relationship between Performance Expectancy and Behavioral Intention

Performance Expectancy is the degree to which an individual believes that using technology will improve his or her job performance (Venkatesh et al., 2012). In previous research, Performance Expectancy has been shown to influence behavioral intentions in the context of mobile commerce (AbuShanab & Pearson, 2007), mobile service (Zarmpou et al., 2010), and mobile banking (Shaikh & Karjaluoto, 2015). Individual's perception that using mobile payment will help achieve profit in performing payment tasks so that it can influence behavioral intentions to adopt it.

Likewise, during the Covid-19 pandemic, where government policies regarding restrictions on individual movement have hampered interaction and disabled physical activity, it has an impact on people's daily behavior, and daily routines have been shifted from offline to online. So that the use of Fintech services during the Covid-19 pandemic makes it easier for transactions and financial management that can improve work performance. Based on this description, this study proposes the following hypothesis: H1: Performance expectations have a positive effect on intentional behavior to use Fintech services during the Covid-19 pandemic.

Relationship between Effort Expectancy and Behavioral Intention Effort

Expectancy is defined as the level of ease that individuals feel related to the use of technology (Venkatesh et al., 2012). In the context of internet banking or mobile banking, Effort Expectancy is significantly related to behavioral intentions (Gu et al., 2009). According to Miltgen et al., (2013) that Effort Expectancy contributes to predicting the intention to adopt new technology. When users feel that payment through mobile banking is easy to use and does not require much effort, they have higher expectations of obtaining the desired performance (Venkatesh et al., 2003).

Likewise, consumer expectations of Effort Expectancy in using Fintech services during the Covid-19 pandemic will affect their behavioral intentions to use Fintech services. Based on this description, this study proposes the following hypothesis: H2: Business expectations have a positive effect on intentional behavior to use Fintech services during the Covid-19 pandemic.

Relationship between Social Influence and Behavioral Intention

Social Influence is the extent to which an individual perceives that people believe that he or she should use a new technological system (Venkatesh et al., 2003). Social Influence here is similar to subjective norms in the Theory Acceptance Model (TAM) and social factors in the Model of Personal Computer Utilization (MPCU). Gu et al., (2009) found that social influence had no significant effect on behavioral intentions related to the use of mobile applications, as well as Govender & Sihlali (2014) stated that social influence did not significantly affect mobile banking adoption in students who are members of the next generation. Y.

However, research conducted by Oliveira et al., (2016) and (Lee et al., 2019) regarding the behavioral intention of using mobile payment services, found that social influence was proven to significantly affect the intention to use mobile payment services. Likewise, consumers' intention to use Fintech services during the Covid-19 pandemic is indicated by encouragement from the social environment of consumers who tend to trust them. Based on the description above, this study proposes the following hypothesis: H3: Social influence has a positive effect on intentional behavior to use Fintech services during the Covid-19 pandemic.

Relationship between Facilitating Conditions, Behavioral Intention, and Use Behavior

Facilitating Conditions are infrastructure that supports the use of technology, referring to consumers' perceptions of the resources and support available to perform a behavior (Venkatesh et al., 2003). This construct is similar to perceived behavioral control in the Theory of Planned Behavior (TPB). According to existing research, Facilitating Conditions do not significantly influence internet banking adoption (AbuShanab & Pearson, 2007); Tan & Leby Lau, 2016).

However, Yahaya & Ahmad (2019) in their research on the factors that influence Fintech acceptance for zakat distribution using UTAUT, found that Facilitating Conditions positively influenced the behavior of using mobile banking for zakat distribution. In this study, Facilitating Conditions are specifically related to applications that support consumers to use Fintech services, how the application functions properly, is always updated and is easy to use.

The preferable Facilitating Conditions will generate behavioral intentions and will further encourage the use of Fintech services, especially in the Covid-19 pandemic situation where consumers avoid physical touch with conventional payment instruments that have the potential to infect the Covid-19 virus. Based on the description above, this study proposes the following hypothesis: H4a: Facilitating Conditions have a positive effect on intentional behavior to use Fintech services during the Covid-19 pandemic. H4b: Facilitating Conditions have a positive effect on the use of Fintech services during the Covid-19 pandemic

Relationship between Perceived Health Risk, Behavioral Intention, and Use Behavior

In this Covid-19 pandemic situation, many things are done by someone to prevent the spread of the virus, such as maintaining social distance, washing hands, avoiding touching the face, nose, eyes, or mouth, and staying at home during the pandemic (Cone health, 2020). In the context of decision-making, consumers will consider options that involve lower risk, as well as in terms of transactions. Consumers are looking for ways to reduce the use of cash in their financial transactions and activities and change their payment method to a contactless payment method in this Covid-19 pandemic situation.

The use of electronic payment channels and electronic wallets is seen as a safe payment method and helps avoid physical contact with surfaces (AP, 2020) such as banknotes, payment cards, and ATM/CCDM machines (Cash Deposit and Check Machines) that are considered to be risky to their health. Khedmatgozar & Shahnazi (2018) stated that the level of risk perception is the most important factor influencing the adoption of electronic services. Furthermore, in the context of the concept of technology acceptance, most believe that perceived risk is the main factor influencing technology adoption (Kesharwani & Singh Bisht, 2012; Sikdar et al., 2015).

Thus, the high level of Perceived Health Risk from the use of conventional payment instruments can affect consumers' willingness to use Fintech services in making purchases or consumption during the Covid-19 pandemic. Based on the description above, this study proposes the following hypothesis: H5a: The potential high health risk of using conventional payment instruments affects behavioral intentions to use Fintech services during the Covid-19 pandemic. H5b: The potential high health risk of using conventional payment instruments affects the use of Fintech services during the Covid-19 pandemic.

Relationship between Behavioral Intention and Use Behavior

Intention towards adoption can be defined as an individual's willingness to do or use something based on motivational behavior. According to Abrahão et al., (2016) behavioral intentions are used to study the intention towards the adoption of new technology in supporting everyday life. In this Covid-19 pandemic situation, consumers' intentions motivate them to use Fintech services which are considered safer against Covid-19 virus infection than using conventional payment tools. Based on the description above, this study proposes the following hypothesis: H6: Consumer behavior intentions have a positive effect on using Fintech services during the Covid-19 pandemic.

METHODOLOGY

The data was collected by using a questionnaire with two main parts, the first part covered the socio-demographic characteristics of the respondents, including gender, age, occupation, monthly expenses, use of Fintech before the pandemic, intensity and increasing intensity of use, as well as the most frequent Fintech applications used during a pandemic.

The second part of the research questionnaire includes items related to the proposed construct in the research model adopted from previous research by Venkatesh et al., (2012), Boonsiritomachai & Pitchayadejanant (2019), Lee et al., (2019). Where each question item is measured using a five-point Likert Scale ranging from "strongly disagree" (1) to "strongly agree" (5). Furthermore, the questionnaire was distributed online using a purposive sampling technique to 300 consumers using fintech services during the Covid-19 pandemic. Hair et al., (2010) suggested that to test the structural model with SEM, and the sample size must be at least 5-10 times the number of indicators in the model. Because the model in this study has 30 indicators with a sample size of 300, this criterion is met.

Demographically, respondents dominated by females, 73.3%, followed male 26.7%, as for the age of the respondents, the largest proportion dominated by the age range of 17-25 years by 63.3%, the age of 26-35 years by 11.3%, and the age of 36-45 years by 18.3%. Based on occupation, it is dominated by students/students as much as 58 .7% and employees by 13.3%, with the average expenditure per month dominated by less than IDR. 2,500,000, amounting to 62.0% and between IDR. 2,500,000,- up to IDR. 5.000.000,- by 17.7%.

As many as 89.0% of respondents had used Fintech application services before the Covid-19 pandemic, while 11.0% did not use Fintech application services and started using them during the Covid-19 pandemic. Most of the respondents (69.3%) in this study stated an increase in the use of Fintech application services during the Covid-19 pandemic, with an average monthly intensity of up to 5 times, even exceeding ten times. As shown in Table 1 below:

TABLE 1: Characteristics of Respondents

Characteristics		Number of people	Percentage (%)
Gender	Male	80	26,7
	Female	220	73,3
Age	17 – 25 years old	190	63,3
	26 – 35 years old	34	11,3
	36 – 45 years old	55	18,3
	46 – 55 years old	13	4,3
	> 55 years old	8	2,7
Occupation	Students / University student	176	58,7
	Private Sector Employee	82	13,3
	Entrepreneur	12	4,0
	Housewife	13	4,3
	Others	17	5,7
Monthly expenses	< IDR2.500.000,-	186	62,0
	IDR2.500.000,- to IDR.5.000.000,-	53	17,7
	IDR5.000.000,- to IDR.7.500.000,-	15	5,0
	IDR7.500.000,- to IDR10.000.000,-	16	5.3
	> IDR10.000.000,-	30	10.0
Intensity of Fintech Use During a Pandemic (monthly)	< 3 times	110	36,7
	3 – 5 times	102	34,0
	6 – 10 times	45	15,0
	Above 10 times	43	14,3
Use of Fintech Before the Pandemic	Not Using	33	11,0
	Use	267	89,0
Increased Use of Fintech During a Pandemic	Not increase	92	30,7
	Increase	208	69,3

Before the structural model analysis, the validity and reliability of the data were tested by analyzing the measurement model using the Confirmatory Factor Analysis (CFA) method with the first-order technique. The data tested with Fornell & Larcker (1981) criteria, and this means evaluating (1) the loading value of each indicator item, (2) Composite Reliabilities (CR), and (3) Average Variance

Extracted (AVE), which refers to the criteria that the loading of each indicator is at least 0.7 so that the data is considered valid, the CR meets the recommended threshold of 0.8, and the AVE is not less than 0.5. As shown in Table 2 below:

TABLE 2: Validity and Reliability of the Measurement Model

Indicator of Variable	SFL > 0,5	CR > 0,7	AVE > 0,5
X1.1	0.859		
X1.2	0.892	0.916	0.732
X1.3	0.872		
X1.4	0.796		
X2.1	0.895		
X2.2	0.881	0.935	0.784
X2.3	0.924		
X2.4	0.839		
X3.1	0.629		
X3.2	0.727	0.723	0.561
X3.3	0.624		
X4.1	0.823		
X4.2	0.825		
X4.3	0.873	0.894	0.633
X4.4	0.840		
X4.5	0.582		
X5.1	0.781		
X5.2	0.929	0.907	0.710
X5.3	0.872		
X5.4	0.779		
Y1.1	0.943		
Y1.2	0.970	0.943	0.806
Y1.3	0.867		
Y1.4	0.802		
Z1.1	0.830		
Z1.2	0.899	0.873	0.635
Z1.3	0.731		
Z1.4	0.713		

Based on table 2, it can be seen that the 29 measurement indicator items in the study have met the loading factor criteria exceeding 0.5, with the Composite Reliabilities (CR) value above 0.7, and the Average Variance Extracted (AVE) value exceeding 0.5. Thus, it can be concluded that the data have a good level of convergent validity and reliability in reflecting the construct of this research variable. Furthermore, to answer the hypothesis that has been formulated in this study, it is carried out through structural model analysis using SEM on the Amos application. This structural model test was carried out on the entire research model by looking at several Goodness-of-Fit (GOF) criteria, as shown in the following table.

TABLE 3: The *Goodness of Fit* Structure Model

Goodness of Fit Index	Cut of Value	Results	Conclusion
Chi-Square			
Chi Square	Expected value < χ^2 tabel	348.883	Good fit
Significant Probability	$\geqslant$	0,002	Close fit
Absolute Fit Measures			
RMSEA	≤ 0.08	0,030	Good fit
GFI	≥ 0.90	0,926	Good fit

Goodness of Fit Index	Cut of Value	Results	Conclusion
Incremental Fit Indices			
NFI	> 0.90	0,956	Good fit
CFI	> 0.90	0,990	Good fit
RFI	> 0.90	0,939	Good fit
Parsimony Fit Indices			
AGFI	0 - 1	0,890	Good fit
PNFI	0 - 1	0,685	Good fit

Table 3 show the Goodness of Fit (GOF) structural model with a value of 2 (chi-square) is 348,883 with a Significant Probability of 0.002 and an RMSEA of 0.030, which indicates that it has met the Goodness of Fit (GOF) criteria index, as well as other index values, have met the criteria of Goodness of Fit (GOF). Thus, the structural model of this research is stated to be a good fit, which means that this research model can describe the relationship between the phenomena being studied and can be used to answer research hypotheses.

TABLE 4: Structural Parameters Estimates

Hypothesis	Estimate	P Value	Conclusion
Performance Expectancy □ Behavioral Intention	0,410	***	Supported
Effort Expectancy □ Behavioral Intention	-0,064	0,194	Not Supported
Social Influence □ Behavioral Intention	-0,002	0,972	Not Supported
Facilitating Condition □ Behavioral Intention	0,421	***	Supported
Perceived Health Risk □ Behavioral Intention	0,210	***	Supported
Facilitating Condition □ Use Behavior	0,197	***	Supported
Behavioral Intention □ Use Behavior	0,668	***	Supported
Perceived Health Risk □ Use Behavior	0,134	0,004	Supported `

Based on Table 4, it is shown that from the eight hypotheses formulated, and six hypotheses are supported by the results of this study, namely H1, H4a, H4b, H5a, H5b, and H6, with the significance value of each hypothesis below 0.05. While the H2 and H3 hypotheses are not supported in this study with a significance value exceeding 0.05, it means that the user's business expectations and the influence of the social environment do not affect behavioral intentions to use Fintech services during the Covid-19 pandemic.

DISCUSSION

The goal of this study is to determine the extent of consumer interest in and use of Fintech services during the Covid-19 pandemic by applying The Unified Theory of Acceptance and Use of Technology (UTAUT) theory to four main dimensions as determinants of Fintech intention and use, namely, Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions, collaborated with Perceived Health Risk. These are seen as necessary as a health risk factor that affects the intention and use of Fintech services in situations Covid-19 pandemic. This study indicates that there are two UTAUT variables, namely Effort Expectancy and Social Influence, which have no significant effect on behavioral intentions to use Fintech services. The convenience felt by consumers regarding the use of Fintech services and the encouragement of the social environment has not been proven to affect the behavior of consumers' intentions to use Fintech services during the Covid-19 pandemic.

The results of this study are in accordance with the findings of Miltgen et al., (2013); Yahaya & Ahmad (2019); Lee et al., (2019) which states that effort expectations (Effort Expectancy) do not affect behavioral intentions to adopt new technologies in the context of payments through mobile banking, as well as the findings of Gu et al., (2009); Govender & Sihlali (2014); Oliveira et al., (2016); Alalwan et al., (2018) which states that social influence has no significant effect on behavioral intentions to use mobile banking applications.

The results of this study do not support Oliveira et al., (2016); Yahaya & Ahmad (2019); Lee et al., (2019) which states that social influence significantly affects the intention to use mobile payment services, and Alalwan et al., (2018) which states that (Effort Expectancy) affects the behavior of intention to adopt internet banking.

Meanwhile, two of the four other UTAUT variables, namely Performance Expectancy and Facilitating Conditions, have been shown to have a positive and significant effect on behavioral intentions to use Fintech services.

Thus the use of Fintech as a substitute for conventional money helps support the performance of its users, and consumers perceive that using Fintech services can help achieve profits in making payments. Fintech services are thought to have helped with transactions and financial administration during the Covid-19 pandemic, which could have improved work performance.So that performance expectations (Performance Expectancy) of Fintech services affect consumer behavioral intentions to adopt them, consumers intend to use Fintech services during the Covid-19 pandemic. Even consumers plan to always use Fintech services in everyday life the pandemic, and the future.

The findings of this study are in line with Oliveira et al., (2016); Alalwan et al., (2018); Yahaya & Ahmad (2019); Lee et al., (2019), which states that performance expectations have a significant influence on consumer behavioral intentions to adopt mobile payments. Furthermore, the condition of the facility (Facilitating Conditions) has a significant effect on behavioral intentions and the use of Fintech services during the Covid-19 pandemic. In this study, Facilitating Conditions are related explicitly to resources that support consumers to use Fintech services. These include the knowledge needed to use Fintech Services, internet-connected cellphones, and Fintech service applications used can be accepted at many merchants.The condition of these good facilities can generate consumer behavioral intentions. It will further encourage them to use Fintech services, especially during the Covid-19 pandemic conditions where consumers avoid physical touch with conventional payment instruments that can potentially infect the Covid-19 virus.

The results of this study confirm the research of Alalwan et al., (2018) and Yahaya & Ahmad (2019), which found that the condition of the facility positively affects the behavior of using mobile and internet banking. However, it appears to contradict Oliveira et al., (2016) and Lee et al., (2019), who argued that Facilitating Conditions had not been proven to significantly affect behavioral intentions to adopt internet banking services, as well as previous research by AbuShanab & Pearson (2007) and Tan & Leby Lau (2016), who discovered that the condition of the facility has no significant impact on the adoption of interbank services.

This study also proves that the potentially high health risks of using conventional payment instruments affect behavioral intentions and use of Fintech services during the Covid-19 pandemic. In this Covid-19 pandemic situation, consumers are considering options that involve lower risk in transactions. Consumers change their payment methods to contactless payment methods to reduce the use of cash in their transactions and financial activities. The use of Fintech services during the pandemic is believed to minimize direct contact when doing transacting and minimize the possibility of being infected with the Covid-19 virus and make consumers calmer in transacting. The results of this study support the research of Alalwan et al., (2018) and Lee et al., (2019) which state that risk significantly affects the behavioral intention to adopt internet banking services. Support also Kesharwani & Singh Bisht (2012); Sikdar et al., (2015); Khedmatgozar & Shahnazi (2018), which states that risk is the main factor influencing the adoption of electronic services on the concept of technology acceptance. However, in this study, the risk factors were more specific on health risks that were adjusted to the Covid-19 pandemic. In contrast, the risk factors in previous studies focused on general and specific risks on privacy risks.

Consumer behavior intentions have also proven to positively affect the use of Fintech services during the Covid-19 pandemic. In a pandemic situation, consumer intentions motivate them to use Fintech services which are considered safer against Covid-19 virus infection, than using conventional payment tools. Consumers use the Fintech service application during the Covid-19 pandemic as a substitute for cash to pay for shopping for daily needs, paying routine bills, and borrowing money. The results of this study are in line with Alalwan et al., (2018) and Yahaya & Ahmad (2019), which state that behavioral intentions significantly affect the adoption of internet banking services.

This research proves that the potential risk of being infected with the virus in Covid-19 is a factor driving interest in behavior and using Fintech services during the Covid-19 pandemic, in addition to the influence of performance expectations and condition of facilities from the fintech service itself. Thus, collaborating the perceived health risk variable with the Unified Theory of Acceptance and Use of Technology (UTAUT) theory is the specialty of this study. The Covid-19 pandemic situation has changed consumer behavior towards the use of electronic money or Fintech services. There is an increase in the

number of users of Fintech service applications, where consumers who previously did not use Fintech application services started using them during the Covid-19 pandemic.

In addition, there is an increase in transactions, where the intensity of using Fintech application services reaches an average of 5 times, even exceeding ten times per month. This is in line with Bank Indonesia data recorded in November 2020, showing that Indonesian consumer sentiment in the use of electronic money during the Covid-19 pandemic increased compared to before the pandemic.

CONCLUSION

This study aims to analyze consumer intentions and behavior in using Fintech services during the Covid-19 pandemic by collaborating with Perceived Health Risk as the uniqueness of this research model with The Unified Theory of Acceptance and Use of Technology (UTAUT) theory. The study results prove that Perceived Health Risk and two UTAUT variables, namely Performance Expectancy and Facilitating Conditions have a significant effect on Behavioral Intention and Use Behavior.

Meanwhile, the other two UTAUT variables, Effort Expectancy, and Social Influence proved to have no significant effect. Thus, the high potential risk of being infected with a virus due to conventional payment instruments, performance expectations, and condition of facilities from Fintech application services are factors driving the intention and behavior of using Fintech services during the Covid-19 pandemic. Consumers consider options with lower risk in transactions and view the use of Fintech services in a pandemic situation as a safe alternative. Where previously did not use Fintech application services, started using them during the Covid-19 pandemic.

In addition, there has been an increase in transactions and the intensity of using Fintech application services during the Covid-19 pandemic, especially for shopping for daily necessities, paying routine bills, and borrowing money.

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Role of Cooperative for Sustainable Digitalisation

A Faroby Falatehan
Yusman Syaukat
Hariyadi
Sriwulan Ferindian Falatehan
Pipin Dwi Astiti
Widia Sarah Az Zahra Putri
IPB University, Indonesia

ABSTRACT

KUD Tunas Muda is a cooperative that has been experienced in applying digital activity in its activity. This is the strength of cooperative in performing digitalization of smallholder oil palm. Based on the SWOT analysis, the strength of KUD Tunas Muda includes many facilities in the cooperative, such as mobile application, building, convenience store, and its role as replanting fund distributor. The weakness of this cooperative is the existence of members who are not loyal and have problem with the cooperative and the absence of grading team in palm oil processing plant. The opportunity of this cooperative is the fund provided by BPDPKS for replanting activity. The external threat includes middleman and free trade, where the supplier of various inputs is able to directly sell to store or consumers, thus reducing the role of KUD Tunas Muda. Therefore, this study analyzes the role of KUD according to members and extraordinary members. By knowing the strengths and weaknesses of the role of cooperatives based on the perceptions of members and extraordinary members, it is hoped that this study can provide strategic recommendations, which can increase the role of cooperatives in order to achieve sustainable digitalization.

Adoptasi Pemasaran Digital dan Halangan: Kajian Kes Pengusaha Batik Terengganu, Malaysia

Saadan Mohamed Senin
Rozita Halina Rosli
Mokhammad Nuruddin Zanky
Noor Hasni Juhdi
Fakulti Ekonomi dan Pengurusan,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRAK

Tujuan kajian ini adalah untuk meninjau adoptasi pemasaran digital dalam kalangan pengusaha Batik Terengganu, Malaysia serta halangan yang dihadapi oleh mereka ketika era revolusi industri 4.0 ditambah pula fasa pandemik COVID-19. Tinjauan kajian ini menggunakan pendekatan kualitatif – kaedah kajian kes. Kajian ini telah memilih 6 orang pengusaha Batik Terengganu bertaraf perusahaan kecil sederhana. Data dianalisis menggunakan metod "grounded theory". Hasil kajian mendapati adoptasi pemasaran digital tertumpu kepada platform media sosial diikuti pemasaran mobil, "marketplace", laman web, dan paling rendah aplikasi "search engine optimization". Mereka menggunakan teknologi pemasaran digital terutamanya sebagai medium saluran maklumat dan komunikasi, pengiklanan, jualan, penjenamaan, dan pencarian pekerja. Beberapa halangan yang ditemui melalui kajian ini adalah faktor dalaman seperti tahap ilmu pengetahuan, kemahiran teknologi, sumber kewangan dan faktor luaran iaitu ketidaktentuan situasi pandemik. Antara hasil penemuan baharu dari kajian ini di bawah kategori halangan dari persepsi pengusaha adalah posisi pasaran rendah, kemahiran pembangunan konten digital lemah, dan kurang cakna pengurusan harta intelek. Hasil kajian ini memberikan kontribusi empirikal bahawa adoptasi pemasaran digital dalam kalangan pengusaha Batik Terengganu masih tahap marginal sehingga menyebabkan daya saing rendah ditambah pula beberapa halangan dalaman dan luaran.

Katakunci: adoptasi, pemasaran digital, revolusi industri 4.0, media sosial, pandemik COVID-19

PENGENALAN

Batik Terengganu adalah manifestasi unsur karya seni tempatan yang unik dilukis atas lembaran fabrik. Keaslian mutu seni dapat dilihat pada motif kain untuk pakaian, sarung, kain panjang, dan kain hiasan dari zaman ke zaman hinggalah sekarang dalam corak tradisi dan teknik tradisional demi untuk mengekalkan ketulenan dan kualiti (Nor Haslina et al. 2015). Namun pasaran batik semakin dinamik. Persaingan utama adalah dari industri batik Indonesia, China dan Singapura yang berunsur lebih terbuka dan kontemporari (Chia 2014; Nordin & Bakar 2012). Maka kelebihan persaingan perniagaan semakin sukar kecuali kepada perniagaan yang mengadoptasi pemasaran digital. Pemasaran digital memudah cara untuk meningkatkan rangkaian aktiviti untuk memperkenalkan produk perniagaan sehingga produk tersebut dapat digunakan oleh orang ramai (Dimas 2015).

Pandemik COVID-19 telah menyebabkan banyak negara mengenakan sekatan perjalanan dan kawalan pergerakan. Manakala, industri batik sangat sinonim dengan industri pelancungan. Terbukti di Malaysia bahawa sektor perniagaan kecil adalah salah satu sektor yang paling terkesan secara langsung oleh perintah kawalan pergerakan (Noor Fazlinda 2020). Batik Terengganu tidak terkecuali dari menanggung kesan negatif jualan. Aktiviti yang biasanya dijalankan secara langsung (offline) kini dijalankan secara digital atau secara dalam talian. Dalam keadaan ini, teknologi digital adalah salah satu jalan keluar untuk mengatasi masalah ini. Usahawan dalam perusahan batik perlulah melihat keadaan ini sebagai satu cabaran dan bersedia untuk melakukan perubahan.

Memandangkan kerajaan meletakkan dasar kawalann pergerakan yang ketat, bukti empirikal berkenaan keadaan industri batik Terengganu, Malaysia amat terhad. Kajian ini dijalankan secara temubual bersemuka dan dalam talian, yang bertujuan untuk meneroka dan memahami secara mendalam persepsi pengusaha tentang peranan teknologi digital. Penyelidik mengambil masa kira kira 2 bulan untuk melengkapkan sesi temubual ke atas semua responden.

PENYATAAN MASALAH

Penggunaan teknologi digital seperti internet memberikan kelebihan termasuk mempermudah mencari pelanggan baru (Badasyan 2012), menjangkau pasaran yang lebih luas, kos pemasaran yang rendah (Teiminen 2015) dan juga memudahkan komunikasi dengan pelanggan (Naser 2017). Akan tetapi pengusaha batik Terengganu didapati tidak mengeksploitasikan ledakan teknologi pemasaran digital walaupun faedah pulangan adalah dinamik (Noor Haslina 2015; Padeli 2020). Kajian mendapati bahawa pengusaha mikro, kecil dan sederhana tidak yakin untuk mengadoptasi pemasaran digital dalam perniagaan kerana aspek risiko pendedahan maklumat peribadi terhadap penggunaan internet dalam perniagaan (Padeli 2020). Kesan dari itu, batik Terengganu jauh ketinggalan dari aspek saiz pasaran (Noor Haslina 2015; Yang 2018). Kebolehupayaan menguruskan teknologi digital dalam perniagaan mereka mungkin masih berada pada tahap yang lemah (Teiminen et al. 2015) walaupun secara teorinya pemasaran digital mampu menyediakan satu platform pemasaran moden dan baik kepada daya saing perniagaan (Acosta 2016). Oleh kerana itu, kajian kami adalah bertujuan menambah bukti empirikal bahawa adoptasi pemasaran digital merupakan faktor kritikal yang menentukan daya saing perniagaan batik Terengganu.

Menurut literatur berkenaan perusahaan batik, para pengusaha mempunyai pendirian yang sentimental dan tradisional dengan mengatakan bahawa mencanting batik itu perlu terinspirasi dari jiwa. Sedangkan, tanpa sedar citarasa dan pilihan pelanggan dalam era digitalisasi sudah tidak berapa menghargai batik tradisional. Salah satu bukti penurunan permintaan produk batik canting tangan dapat dilihat dari data eksport batik Indonesia dari tahun 2015 hingga 2020. Pada tahun 2015 Indonesia dapat mengeksport batik dengan harga USD185.04 juta tetapi prestasi ini terus menurun (Andhatu Achsa et al. 2020). Begitu juga, dari segi pemasaran industri batik Terengganu, jualan jatuh merosot sehingga tahap perniagaan batik Terengganu di bazaar tempatan terpaksa ditutup. Ini disebabkan beberapa perkara seperti ketidakmampuan pengetahuan dan kemahiran menggunakan teknologi pemasaran digital, kekangan masalah kewangan dalam menggunakan teknologi pemasaran digital dan kekurangan sumber dari segi sumber manusia mahir menggunakan teknologi digital (Nor Haslina et al. 2015; Nurul Anwar et al. 2013; Hanitahaiza et al. 2012). Oleh kerana itu, kajian kami telah mengenalpasti beberapa faktor penghalang kepada dinamik pasaran batik Terengganu.

PERSOALAN KAJIAN

A. Sejauh mana usahawan batik Terengganu menggunakan platform pemasaran digital dalam perniagaan?
B. Apakah halangan yang dihadapi oleh usahawan batik Terengganu di dalam melaksanakan pemasaran digital dalam perniagaan?

OBJEKTIF KAJIAN

A. Meneroka sejauhmana usahawan batik Terengganu menggunakan platform pemasaran digital dalam perniagaan.
B. Meneroka halangan yang dihadapi oleh usahawan batik Terengganu di dalam melaksanakan pemasaran digital dalam perniagaan.

SUMBANGAN KAJIAN

Penyelidikan ini akan menyumbang kepada literatur industri kecil dan sederhana di mana fokus perbincangan adalah pemasaran digital dan halangan penggunaan dalam kalangan perusahaan mikro, kecil dan sederhana. Penyelidikan ini diharapkan dapat membuka minda pengusaha batik bahawa penggunaan teknologi sangat penting pada masa kini dan kepada pihak pengurusan pembuat keputusan dasar agar dapat merangka modul-modul latihan pemasaran digital dan membantu meningkatkan daya saing dan keupayaan pengusaha batik bagi mengimplementasikan pemasaran digital dalam perniagaan mereka.

SOROTAN KAJIAN

Industri Kraftangan dan Batik Terengganu

Sektor kraftangan memainkan peranan penting dalam menjana pendapatan dan pekerjaan dan juga telah diiktiraf di seluruh dunia sebagai strategi ekonomi untuk mengurangkan kemiskinan (Yang 2018). Dalam era globalisasi dan perubahan ekonomi yang pesat, warisan ini perlu dikenali dan dilindungi atau ia mungkin akan hilang selama-lamanya (Barrer & Dimas 2016). Batik Terengganu adalah salah satu daripada banyak produk kraftangan yang popular di Malaysia, di mana melaluinya Malaysia telah menjadi hub pelancongan yang diminati (Rohaida 2012). Industri batik mempunyai sejarah yang panjang di malaysia. Bermula dengan operasi berskala kecil, pengeluaran batik telah berkembang menjadi industri yang menguntungkan perusahaan nasional. Batik merujuk kepada kain hiasan yang mengandungi pelbagai warna dan corak.

Pemasaran Digital

Digitalisasi dan media sosial, telah mempengaruhi tingkah laku pengguna (Kaplan & Haenlein 2010) khasnya melibatkan firma, produk dan jenama (Muntinga et al. 2011). Pemasaran digital dan media sosial membuka peluang untuk perniagaan kecil untuk menarik pelanggan baru dan menjangkau pelanggan di pasaran yang lebih luas. Pada peringkat awal pendigitalan, satu usaha untuk meningkatkan kecekapan pengurusan perubahan adalah sangat kritikal (Pateli 2020). Penggunaan internet dapat mengurangkan kos pemasaran secara signifikan (Taiminen et al. 2015). Walau bagaimanapun, usahawan batik Terengganu masih tidak mengikuti perkembangan digital, kerana kurangnya pengetahuan dan kemahiran IOT (internet of things). Teknik pemasaran tradisional harus diserasikan dengan teknologi baru dalam revolusi industri 4.0 (Zhang et al. 2017; Aylin 2020) di mana penyusunan semula proses perniagaan yang melibatkan pengeluaran, pengedaran, penjualan, pembungkusan, tenaga kerja, harga, dan promosi dapat dilaksanakan ke arah adopsi digitalisasi.
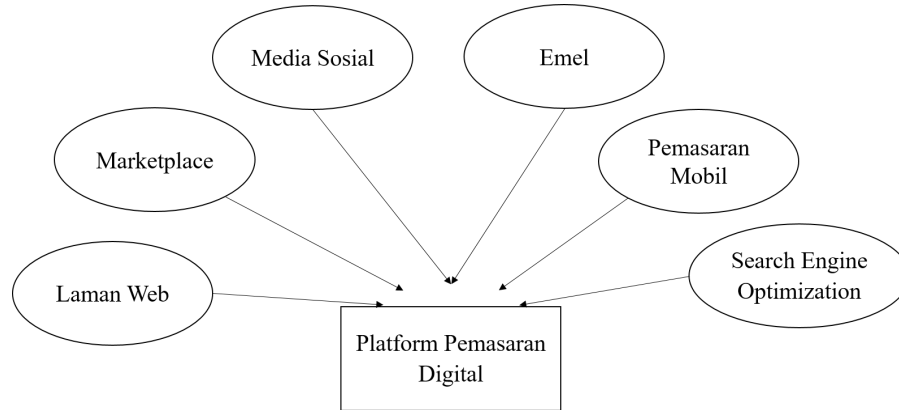
Platform Pemasaran Digital

Terdapat pelbagai elemen di mana pemasaran digital dibentuk. Semua bentuk pemasaran digital beroperasi melalui peranti elektronik. Menurut (Yasmin, Tasneem & Fatema, 2015) unsur terpenting dalam pemasaran digital diberikan di bawah:

A. Laman Web - adalah sebuah tempat penyebaran informasi melalui internet. Penerbit laman web memberikan maklumat mengenai produk atau perkhidmatan mereka di laman web mereka secara percuma dan pada bila bila masa sahaja. Terdapat 2 jenis laman web laman web statik dan laman web dinamik.

B. Pemasaran E-mel - Apabila mesej mengenai produk atau perkhidmatan dihantar melalui e- mel kepada pengguna yang ada atau berpotensi, ia ditakrifkan sebagai pemasaran e-mel. Pemasaran e-mel secara langsung digunakan untuk mengirim iklan, untuk membina jenama dan kesetiaan pelanggan, untuk membina kepercayaan pelanggan dan membuat kesedaran jenama. Syarikat boleh mempromosikan produknya dan perkhidmatan dengan menggunakan elemen pemasaran digital ini dengan mudah. Kosnya agak rendah berbanding dengan iklan atau bentuk pendedahan media yang lain.

C. Media Sosial - Hari ini, pemasaran media sosial adalah salah satu saluran pemasaran digital yang paling penting. Terdapat pelbagai peranti digunakan seperti komputer, telefon pintar, tablet digunakan bagi membolehkan orang membuat, bertukar idea, maklumat dan gambar mengenai produk atau perkhidmatan. Pengguna internet terus menghabiskan lebih banyak masa dengan laman media sosial daripada yang lainjenis lain. Rangkaian pemasaran media sosial merangkumi Facebook, Twitter, LinkedIn dan Google+.

D. Pemasaran Mobil - Ini adalah cara untuk menghantar maklumat mengenai produk dan perkhidmatan dari peranti telefon bimbit dan telefon pintar. Dengan menggunakan peranti telefon, firma dapat menghantar maklumat dalam bentuk teks (SMS), gambar, video atau audio (MMS). Pemasaran melalui SMS telefon bimbit (Perkhidmatan Pesanan Ringkas) menjadi semakin popular pada awalnya 2000-an di Eropah dan beberapa bahagian di Asia.

E. Search Engine Optimization (SEO) adalah proses mempengaruhi keterlihatan laman web di enjin carian. Kaedah yang boleh diguinakan untuk meningkatkan trafik ke laman web ialah dengan meningkatkan rangking enjin carian.

Menurut kajian terdahulu telah menemui 6 platform pemasaran digital yang kerap digunakan oleh pengusaha .
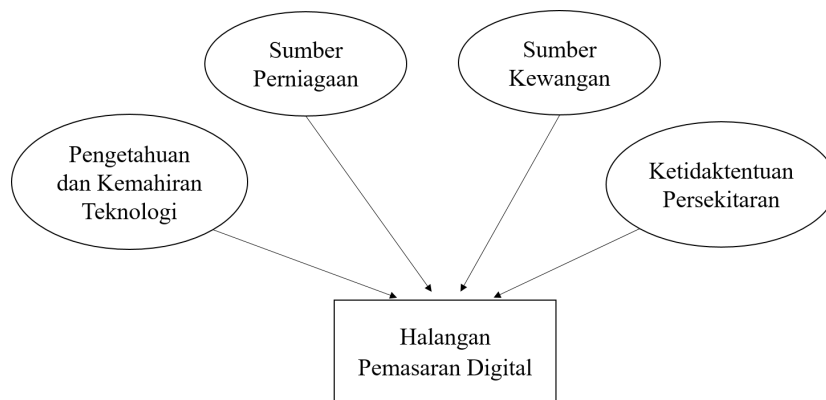

GAMBARAJAH 1: Platform Pemasaran Digital
Sumber: Taiminen, H., & Karjaluoto, H. (2015). The usage of digital marketing channels in SMEs.

Menurut Taiminen et al. (2015) beberapa objektif pemasaran digital terpenting yang digunakan oleh pengusaha adalah peningkatan jualan, medium saluran maklumat dan komunikasi, pemudahcara pengiklanan dan juga bagi memperkukuhkan jenama.

Halangan Pemasaran

Satu kajian di kalangan perusahaan kecil dan sederhana di Amerika Syarikat, United Kingdom, Australia dan India menunjukkan bahawa kompetensi inovasi syarikat, usia pengasas syarikat dan kedudukan geografi syarikat mempunyai kesan yang signifikan terhadap penggunaan Twitter (Abed et. al. 2011). Selain dari itu, pemasalahan perniagaan usahawan industri batik Terengganu ialah peningkatan kos bahan mentah, kekurangan tenaga kerja muda, kekangan kewangan dan prasarana pemasaran digital yang masih jauh ketinggalan (Noor Haslina 2015). Menurut kajian lain, pengusaha akan menggunakan media sosial jika aplikasi media sosial tertentu itu menyediakan kandungan terkini dan berkualiti tinggi (Abed et al. 2011), faktor keserasian (Wang et al. 2010), kos keberkesanan (Chong & Chan 2012), kepercayaan (Chai et al. 2011) dan interaktiviti (Lee & Kozar 2012). Maka kajian kami melihat bahawa halangan pemasaran digital terdiri daripada faktor dalaman dan luaran. Berdasarkan kajian Taiminen et al. (2015), terdapat empat faktor halangan adoptasi pemasaran digital, sebagaimana dalam Gambarajah 2.

GAMBARAJAH 2: Model halangan Pemasaran Digital
Sumber: Taiminen, H., & Karjaluoto, H. (2015). The usage of digital marketing channels in SMEs.

CADANGAN KAJIAN

P1:   Penggunaan teknologi pemasaran digital perlu ditingkatkan secara drastik dalam kalangan pengusaha batik Terengganu untuk melonjakkan nilai jualan dan saiz pasaran.

P2:   Kompetensi pemasaran digital, kemahiran pengurusan strategi pemasaran, dan kebolehupayaan kewangan pengusaha batik Terengganu perlu dikukuhkan melalui siri latihan dan bimbingan dengan dibantu oleh insentif pihak kerajaan.

METOD KAJIAN

Kajian ini menggunakan pendekatan kualitatif untuk meneroka sejauh mana adoptasi pemasaran digital diperlukan dalam memberi nafas baharu kepada industri batik Terengganu yang kelihatan seperti sedang menghadapi arus perubahan drastik dalam konteks strategi pemasaran batik. Kajian kualitatif boleh menjelaskan pengalaman dan pengetahuan seseorang secara lebih mendalam dan menyeluruh (Othman Lebar 2007; Miles, Huberman & Saldana 2014). Pendekatan kajian kes pula merupakan kaedah yang sesuai apabila seseorang penyelidik ingin meneroka dan memahami lebih mendalam mengenai proses bagaimana sesuatu fenomena berlaku (Patton 2015). Pertimbangan untuk menjalankan kajian ini kami bukan sahaja menganalisis kes tunggal bahkan kami juga memerhati kes bersifat jamak.

Peserta Kajian

Kriteria pemilihan peserta kajian ialah mereka yang kaya dengan maklumat yang penyelidik perlukan. Dalam kajian ini, penyelidik akan memilih pengusaha batik Terengganu yang sebenar yang telah terlibat secara terus di dalam industri ini sekurang kurangnya 3 tahun. Tiga prosedur yang akan digunakan di dalam pemilihan peserta kajian tersebut:
   i.   Sampel yang dipilih lebih bersifat selektif. Sampel kajian dipilih berasaskan keingintahuan peribadi dan ciri-ciri daripada pelbagai pengalaman yang penyelidik hadapi;
   ii.   Sumber data yang penyelidik perlukan di dalam kajian bukan mewakili populasinya, namun mewakili maklumat; dan
   iii. Peserta kajian yang penyelidik pilih iaitu orang-orang yang benar-benar mengetahui dan memiliki maklumat dan masalahnya secara mendalam dan dapat dipercayai. Pemilihan peserta kajian semasa pengumpulan data boleh berkembang sesuai dengan keperluan dan kemantapan penyelidik dalam memperoleh data.

Bagi tujuan pengumpulan data, peserta perlu setuju untuk pengumpulan dokumen, diperhati, ditemu bual dan dirakamkan. Peserta dalam kajian ini iaitu pengusaha yang dipilih berasaskan pengetahuan yang mendalam dan pengalaman yang luas berkaitan industri batik secara menyeluruh. Hakikatnya, peserta kajian tidak sekadar menjawab soalan daripada penyelidik. Alasan pemilihan pengusaha batik di Terengganu adalah:
   i.   pengusaha batik ini telah beroperasi melebihi 3 tahun
   ii.   mempunyai aktiviti pemasaran batik secara digital
   iii. berpengetahuan luas dalam operasi pengeluaran kilang
   iv.   boleh memberikan komitmen yang sepenuhnya

Enam pengusaha batik Terengganu telah dipilih yang memenuhi ktiteria yang telah ditetapkan seperti berikut :
   i.   Wanisma Craft Batik
   ii.   Zainin Batik Exclusive
   iii. Nordin & Noriah
   iv.   Balqis Batik
   v.   Rabiha Batik
   vi.   Kamis Batik

Prosedur Pengutipan Data

Prosedur pengutipan data menggunakan pelbagai kaedah antaranya, kaedah temu bual, kaedah pemerhatian dan bukti dokumen. Pengutipan data untuk kajian kualitatif diperolehi daripada kutipan

langsung dari peserta kajian mengenai maklumat, pendapat, pengalaman, pengetahuan, perasaan serta pandangan mereka yang dikutip melalui kaedah temu bual.

Protokol Temubual

Penyelidik adalah sebagai alat utama pengumpul data dalam kajian kualitatif. Justeru, dalam melaksanakan sesi temubual, penyelidik memerlukan protokol temubual sebagai garis panduan dalam melakukan temubual, supaya protokol temubual yang dijalankan terarah dan tidak tersasar daripada permasalahan kajian yang dijalankan.

Dengan ini, sebelum penyelidik melakukan temubual untuk mengumpulkan data, pembinaan protokol temubual penyelidik lakukan terlebih dahulu. Sebelum protokol temubual tersebut digunakan dalam kajian sebenar, penyelidik meminta perkhidmatan orang yang pakar untuk menyemak protokol tersebut terlebih dahulu. Sebaik sahaja penyelidik dapat menyusun protokol temubual, penyelidik meminta perkhidmatan orang yang pakar untuk menyemak dan memberikan komen terhadap protokol temubual tersebut. Pakar yang penyelidik maksudkan adalah, pakar dalam bidang industri batik, pakar pemasaran, pakar yang mahir di dalam industri perniagaan serta pakar dalam bidang penyelidikan kualitatif. Setelah pakar berkenaan memberikan pandangan dan komen mereka terhadap protokol yang dibina, penyelidik memperbaiki semula sesuai dengan komen-komen yang mereka berikan.

ANALISA DATA

Berdasarkan dimensi platform pemasaran digital untuk pengusaha batik yang dikembangkan oleh Tainimen, H & Karjoluoto, H (2015), hasil kajian ini ditunjukkan dalam grafik di bawah. Grafik menunjukkan bahawa platform pemasaran digital yang paling banyak digunakan oleh pengusaha batik di Terengganu adalah media sosial 35%, diikuti oleh pemasaran mobile 18%, pemanfaatan marketplace 14%, halaman web 12%, search engine optimization 9%, dan lain-lain 12% . Usahawan batik di Terengganu tidak menggunakan e-mel untuk memasarkan produk mereka.
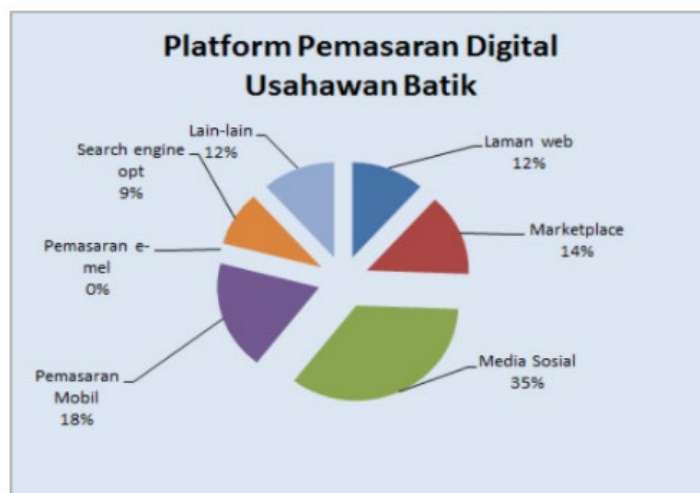
GAMBARAJAH 4: Platform Pemasaran Digital Usahawan Batik Terengganu

Dalam Gambarajah 2, dapat dilihat bahawa tujuan utama pengusaha batik melakukan pemasaran digital adalah untuk meningkatkan penjualan dan memudahkan komunikasi dengan pelanggan. Ini dapat dilihat bahawa dimensi peningkatan penjualan dan medium saluran maklumat dan komunikasi masing-masing mencapai 22%. Ini diikuti dengan pemudah cara pengiklanan dan memperkukuh jenama, masing-masing mencapai 19%. Kemudian diikuti oleh khidmat pelanggan 7% dan pengambilan kaki tangan 4%. Di samping itu, hasil kajian ini menemui objektif pemasaran digital yang lain, iaitu menyampaikan event seperti ekspo kepada masyarakat, dalam kajian ini penyelidik memasukkan kedalam dimensi lain-lain sebesar 7%.

GAMBARAJAH 5: Objektif Pemasaran Digital

ANALISA HALANGAN PEMASARAN DIGITAL

Berdasarkan grafik di bawah, dapat dilihat bahawa halangan tertinggi untuk pemasaran digital yang dialami oleh pengusaha batik Terengganu adalah terbahagi kepada 2 halangan iaitu halangan dalaman dan halangan luaran. Halangan dalaman organisasi ialah berkaitan dengan pengetahuan dan kemahiran digital yang mencapai 57%. Kemudian diikuti halangan dalaman juga iaitu sumber kewangan 13% dan sumber perniagaan sebanyak 4%. Manakala halangan luaran organisasi ialah ketidaktentuan persekitaran ialah 13%. Usahawan batik Terengganu berpendapat bahawa mereka tidak memanfaatkan pemasaran digital sepenuhnya kerana halangan dalam pengetahuan dan kemahiran digital. Keupayaan mereka untuk menjalankan pemasaran digital masih kurang, walaupun mereka menganggap pemasaran digital penting.
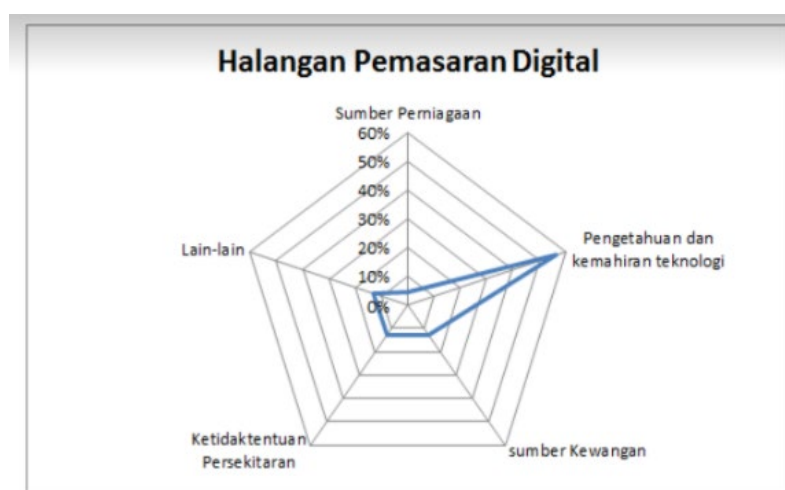
GAMBARAJAH 6: Halangan Pemasaran Digital Batik Terengganu

PERBINCANGAN

Daripada analisis tema yang dijalankan ke atas temu bual bersama usahawan PKS terhadap penggunaan platform digital pemasaran dalam perniagaan masih terdapat halangan dalam melaksanakan pemasaran digital sebagai strategi pemasaran perniagaan. Di dalam bab ini penyelidik akan membincangkan (2) dua perkara utama iaitu platform atau saluran pemasaran digital yang telah digunakan oleh PKS dalam industri batik, dan halangan penggunaan pemasaran digital dalam perniagaan.

Terdapat banyak saluran atau platform pemasaran digital yang ada di pasaran, Facebook, Instagram, Linkedin merupakan medium media sosial yang digunakan secara meluas diseluruh dunia (Pateli, 2020). Namun begitu strategi pemilihan saluran digital yang tepat untuk perniagaan itu adalah bergantung pada objektif dan pasaran sasaran (Salma 2020). Perbincangan berkaitan penggunaan platform pemasaran digital PKS boleh dilihat dari 2 perspektif iaitu jenis platform pemasaran digital dan objektif pemasaran digital Perniagaan Business to business (B2B), lebih ke arah laman web, pemasaran e-mel, untuk menjangkau pelanggan dan menyampaikan maklumat perniagaan secara formal. Lain pula

dengan sebuah perniagaan Business to Customer (B2C) akan memberi tumpuan lebih kepada platform media sosial seperti- Facebook dan Instagram dan Search Engine Optimization dalam membina jenama, menjangkau pasaran yang lebih luas (Hofacker et. al., 2020). Penemuan baharu yang ditemui oleh kajian ini menyangkal kajian terdahulu oleh Tainimen et al. (2015) platform pemasaran emel tidak digunakan sama sekali oleh pengusaha batik tetapi kajian terdahulu menunjukkan pemasaran emel merupakan platform yang amat kerap digunakan oleh pengusaha khasnya pengusaha Business to Business (B2B).
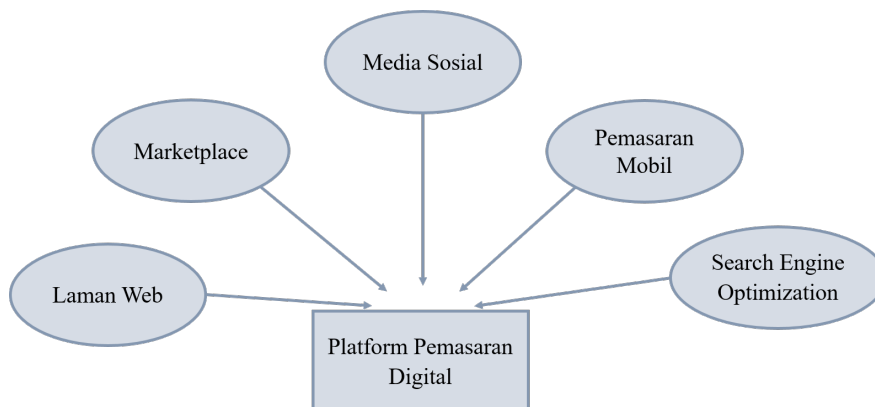
GAMBARAJAH 4: Model Platform Pemasaran Digital Industri Batik

Antara objektif utama pemasaran digital usahawan PKS batik yang telah ditemubual adalah bagi meningkatkan jualan kepada pelanggan sedia ada dan baharu, sebagai medium saluran maklumat dan komunikasi pantas di antara PKS dan pelanggan, sebagai pemudahcara pengiklanan, memperkukuhkan jenama. Majoriti PKS mempunyai objektif dan matlamat yang jelas dalam menggunakan pemasaran digital. Hasil dapatan ini adalah selari dengan kajian lampau oleh Tainimen et al. (2015) kajian terhadap penggunaan saluran pemasaran digital dalam perniagaan. Dalam kajian ini, pengusaha batik menggunakan media pemasaran digital untuk menyampaikan maklumat acara yang akan diadakan oleh usahawan, seperti acara ekspo dan pertunjukan fesyen.

Seperti yang dinyatakan oleh usahawan Nordin dan Noriah semasa wawancara, "Saya juga menggunakan pemasaran digital untuk mengundang orang ramai ke acara saya, seperti pameran". Namun bagi mencapai objektif dan hasil yang di inginkan oleh sesebuah perniagaan, pemilihan saluran atau platform digital dan strategi pemasaran digital haruslah bertepatan. Strategi pemasaran digital yang sesuai bergantung kepada belanjawan pemasaran digital yang di tetapkan oleh perniagaan, sumber dan pengetahuan dan kemahiran usahawan di dalam bidang teknologi komunikasi dan maklumat.
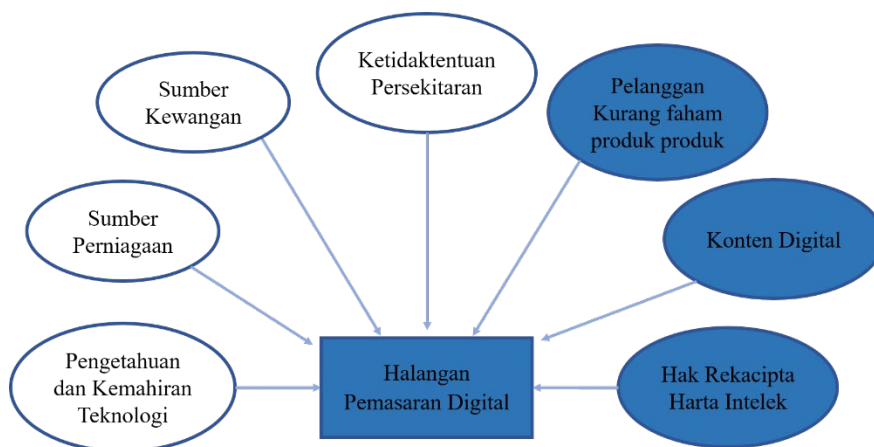
Halangan Pemasaran Digital Dalam Kalangan PKS Batik

Pemasaran digital dapat memberikan banyak kelebihan kepada PKS yang melaksanakannya dalam perniagaan mereka sehingga mereka dapat bersaing dengan perniagaan besar. Penggunaan pemasaran digital dapat meningkatkan produktiviti dan kecekapan PKS dengan cara yang berbeza, termasuklah peningkatan teknologi inovasi, mengurangkan kos urusniaga dan mengubah fungsi pengeluaran sesebuah perniagaan (Acosta 2016).

Oleh itu, adalah sangat penting bagi PKS untuk menggunakan teknologi pemasaran digital secara sistematik dalam perniagaan mereka dengan cara yang membolehkan mereka memaksimumkan faedahnya. Walaupun penerapan dan penyebaran teknologi pemasaran digital memberi banyak kesan positif, teknologi perniagaan digital mempunyai masalah penerimaan di kalangan PKS (Pateli 2020). Ini disokong dengan penemuan kajian ini bahawa masih terdapat beberapa faktor yang menghalang PKS batik memanfaatkan potensi pemasaran digital secara keseluruhan iaitu kurang pengetahuan dan kemahiran teknologi komunikasi dan maklumat (ICT), sumber perniagaan seperti tenaga kerja yang mempunyai kebolehan ICT yang tinggi, dan kemudahan infrastuktur ICT yang mempunyai kos yang agak tinggi.

Halangan yang tertinggi sebanyak 57% kurang pengetahuan dan kemahiran teknologi komunikasi dan maklumat (ICT) dalam pemasaran digital. Keadaan ini menghalang penggunaan ICT secara produktif dalam kalangan PKS industri batik di Terengganu. Halangan ini boleh diatasi melalui gabungan pengetahuan sedia ada usahawan dan baharu penggunaan digital dalam pemasaran (Wan et al. 2017), kesannya dapat melancarkan operasi perniagaan dan berkongsi maklumat bersama rakan kongsi secara lebih berkesan (Cenamor et al. 2019).

Penemuan yang berbeza dari Tainimen et. al. (2015) berkaitan halangan pemasaran digital adalah bahawa masyarakat masih belum faham batik yang dari karya tangan asli dan yang bukan, ini tidak mudah untuk disampaikan secara digital. Sebagaimana usahawan batik S2 "Masyarakat masih tidak faham mengenai batik asli... Batik asli kami adalah kretiviti tangan, tak akan jumpa design yang sama di dunia..itu lah keunikan kami". Selain itu masalah yang lain berkaitan dengan pembuatan digital konten seperti yang disampaikan usahawan batik Z1 "cara menulis, pembangunan bahan grafik dalam gaya pemasaran digital juga menjadi halangan".

GAMBARAJAH 5: Model Halangan Pelaksanaan Pemasaran Digital Industri Batik

BATASAN KAJIAN

Kajian ini mengkaji platform, objektif dan halangan penggunaan pemasaran digital di kalangan PKS Negeri Terengganu. Penyelidikan ini hanya mengkaji kepada 6 platform pemasaran digital iaitu laman web, e-commerce marketplace, media sosial, pemasaran mobil, pemasaran email dan Search Engine Optimization. Penyelidikan ini hanya mengkaji pelaksanaan penggunaan digital dari sudut pandang usahawan, bukan sejauh memeriksa pencapaian atau hasil penjualan produk yang dihasilkan oleh pengusaha. Peserta dalam kajian ini terhad kepada pengusaha batik di Negeri Terengganu.

Pandemik COVID-19 19 telah membataskan kaedah penyelidikan yang di jalankan. Kami terpaksa menjalankan penyelidikan melalui temubual secara online dan ini telah memberi kesan kepada hasil temubual yang mana kami tidak dapat melihat reaksi bahasa gerak tubuh peserta. Penyelidik juga tidak dapat melakukan kaedah pemerhatian di lokasi peserta dimana pemerhatian adalah sangat penting bagi mengesahkan hasil temubual tersebut. Seterusnya kesan pandemik ini menyebabkan penyelidik tidak dapat mengaudit dokumentasi di lapangan.

Di dalam kajian ini juga tidak menumpukan kepada strategi pemasaran digital, dan kajian selanjutnya pada masa depan perlu menganalisis strategi pemasaran digital yang digunakan oleh industri PKS. Kajian selanjutnya juga perlu dilihat berkaitan dengan hubungan harta intelek dan pemasaran digital bagi membantu usahawan melindungi rekacipta kesenian mereka.

IMPLIKASI

Implikasinya, dapatan kajian ini akan terbahagi kepada 2 bahagian iaitu teori dan praktikal. Diharapkan daripada kajian ini dapat memperkasakan teori berkaitan dengan penggunaan platform digital. Teori Diffusion Innovation digunakan dalam kajian ini dan menemukan dimensi seperti hak rekacipta, pengetahuan produk dikalangan masyarakat dan digital konten telah mengembangkan teori sedia ada.

Hasil kajian ini dapat memberi input praktikal kepada usahawan PKS, kerajaan dan institusi pendidikan. Pertama, usahawan PKS Batik umumnya, dan usahawan PKS Batik Terengganu secara khususnya dapat merancang strategi operasi perniagaan mereka supaya dapat mengembangkan perniagaan melalui teknologi pemasaran digital secara sistematik dan berkesan.

Kedua, agensi kerajaan dapat menilai punca dan halangan kepada penglibatan usahawan PKS dalam pemasaran digital perniagaan, seterusnya menyediakan garis panduan atau pelan sokongan kepada para usahawan PKS supaya mereka dapat bersaing secara kompetitif sehingga ke peringkat global dan mendepani cabaran ketidaktentuan pasaran dan persekitaran.

Ketiga, institusi pendidikan tinggi di Malaysia boleh memperkukuhkan program pembangunan usahawan dan membuka peluang latihan kepada usahawan PKS untuk mempelajari ilmu pemasaran digital dalam perniagaan melalui program pengajian yang ditawarkan di universiti dan program Pembelajaran Sepanjang Hayat.

KESIMPULAN

Kajian ini bertujuan untuk meneroka sejauh mana industri batik Terengganu mengadoptasi pemasaran digital. Hasil kajian menunjukkan bahawa platform email adalah tidak bersesuaian digunakan dalam industri perusahan batik Terengganu. Namun keberhasilan industri batik PKS di Terengganu tidak tergantung kepada penggunaan digital pemasaran semata mata, penggunaan kaedah pemasaran konventional masih di lihat sangat relevan di kalangan usahawan PKS iaitu promosi mulut ke mulut dan promosi melalui pertunjukan fesyen dan ekspo. Gabungan kedua-dua kaedah digital dan nondigital adalah lebih berkesan. Disokong oleh (Mohamad, 2020) cabaran pendigitalan menunjukkan bahawa penggunaan platform digital tidak dapat meningkatkan prestasi firma secara langsung, namun ianya memerlukan mekanisme keupayaan dinamik yang dapat menyokong dalam pelaksanaan platform digital.

Kajian ini juga menemukan keunikan di dalam memasarkan produk batik di Terengganu di mana produk yang dipasarkan boleh dicorak mengikut permintaan pelanggan. Selain itu terdapat permintaan daripada usahawan batik untuk memasarkan produk mereka ke peringkat global. Bagi mencapai objektif dan hasil yang diinginkan dalam perniagaan digital, pemilihan saluran atau platform digital dan strategi pemasaran digital adalah bergantungan antara satu sama lain. Selari dengan kajian lepas, pemasaran digital adalah digunakan bertujuan untuk menarik pelanggan dan membolehkan pelanggan berinteraksi dengan jenama dan perniagaan melalui media digital (Yasmin 2015). Penemuan kajian ini menyokong kajian lepas (Tainimen et al. 2015) yang mendapati bahawa objektif utama pemasaran digital adalah sebagai medium saluran maklumat dan komunikasi, memperkukuhkan jenama, pemudahcara pengiklanan, khidmat pelanggan, peningkatan jualan dan pengambilan pekerja.

Walaupun pemasaran digital mempunyai impak positif dalam perniagaan namun masih ada halangan dalam penggunaan pemasaran digital di kalangan pengusaha batik Terengganu iaitu halangan terbesar adalah kurang pengetahuan dan kemahiran teknologi komunikasi dan maklumat (ICT) dalam platform pemasaran digital yang lebih efisyen.

Tiga halangan baharu adoptasi pemasaran digital yang kami temui adalah kelemahan pengurusan hak rekacipta harta intelek, pengetahuan tentang batik kontemporari. Situasi ini mengakibat usahawan tidak mengoptimumkan penggunaan digital dalam pemasaran.

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Penggunaan Teknologi Digital di Kalangan Pekebun Kecil Kelapa Sawit

Nurdayana Hidayah Jan Binti Mohd Suzaini
Noor Azuan Hashim
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRAK

Teknologi digital seperti Internet Pelbagai Benda (Internet of Things) dan media sosial dilihat sebagai medium terbaik yang menjanjikan ketelusan maklumat untuk rantai nilai sawit. Dikatakan bahawa teknologi digital menawarkan potensi yang kuat untuk mendorong pertumbuhan ekonomi dan peningkatan pendapatan dalam kalangan penduduk miskin di luar bandar melalui peningkatan kecekapan pengeluaran pertanian, peningkatan mata pencarian dan pembangunan rantai nilai. Meskipun ada anekdot yang menjanjikan ini, penggunaan teknologi ini masih setara dalam kalangan pekebun kecil pertanian, terutama pekebun kecil sawit. Keperluan penyebaran dan perkongsian maklumat yang cepat dan tepat mengenai kelapa sawit adalah penting kerana pekebun kecil adalah orang yang menanam dan menuai kelapa sawit. Tanpa akses cepat dan ketelusan terhadap maklumat, pekebun kecil tersebut akan bergantung sepenuhnya kepada perantara yang mungkin atau mungkin tidak memberikan maklumat yang tepat mengenai sawit. Hal ini boleh mempengaruhi motivasi pekebun kecil dan akhirnya akan mengakibatkan kemerosotan dalam produktiviti. Namun, masih belum jelas bagaimana penggunaan teknologi digital ini di kalangan pekebun kecil dan sejauh mana mereka menggunapakai teknologi digital, terutama dalam memperoleh maklumat mengenai sawit. Terdapat sedikit kajian yang mengkaji penggunaan teknologi digital dan sokongan agensi kerajaan untuk pekebun kecil untuk menggunapakai teknologi digital. Justeru, kajian ini berusaha untuk mengembangkan pandangan menyeluruh mengenai penggunaan teknologi digital dalam kalangan pekebun kecil sawit bagi tujuan penyebaran maklumat sawit. Kajian ini ingin mengkaji mengapa ada dalam kalangan pekebun kecil atau pemimpin yang mengguna teknologi digital dan sebaliknya. Dengan memahami faktor dan halangan untuk menerapkan teknologi dalam kalangan pekebun kecil ini akan membantu agensi kerajaan, khususnya MPOB dalam merancang bantuan atau latihan untuk pekebun kecil ini untuk meningkatkan motivasi dan produktiviti mereka. Kajian ini akhirnya akan memberikan beberapa analisis dasar dan menyusun cadangan dasar dalam usaha meningkatkan penggunaan teknologi digital dalam kalangan pekebun kecil dalam memperolehi dan berkongsi maklumat sawit.

Kata kunci: Teknologi digital, Media Sosial, Internet Pelbagai Benda, Teori Penyebaran Inovasi, Pekebun Kecil

Social Media Adoption and Performance of Small and Medium Enterprises (SMEs)

Ahmed Abdullah Alhamami
Noor Azuan Hashim
Roshayati Abdul Hamid
Siti Ngayesah Ab. Hamid
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Small and medium enterprise (SMEs) contribute to the national economy of all countries. However, there are variations in the contributions based on developed and developing countries. This paper proposes that by adopting the social media, the performance and contribution of SMEs will increase. However, there is no agreement regarding the predictor of adopting social media and the consequence of such adoption. The paper proposes that variables of diffusion of innovation (DOI) such as relative advantage, compatibility, and complexity are critical for the adoption of social media. Based on resource-based view, the paper proposes that adoption of social media will have a positive impact on the business performance of SMEs. As a way forward, the proposed model will be tested in future work using data that will be collected from SMEs in Saudi Arabia.

Keywords: Social Media Adoption, Diffusion of Innovation, Small and Medium enterprises, Resource Based View

INTRODUCTION

Small and Medium Enterprises (SMEs) are considered the pillar of economic development and sustainable growth in the economy of both developed and developing countries. The entrepreneurship literature has increasingly acknowledged the role of SMEs is significant in facilitating global economic development and achieving community welfare (Surya et al., 2021). The contribution of SMEs to gross domestic product (GDP) and employment in most countries is high. According to the World Bank, SMEs contribute up to 60% of total employment and up to 40% of national income (GDP) in emerging markets, and it will become higher if they consider informal sector. In addition, SMEs account for approximately 90% of businesses and more than 50% of employment globally (Crawford, 2021).

Small and medium-sized businesses play a significant role in developing countries in which their economic goals can be attained, thus they can contribute to economic growth (Burns, 2016). This is a sector considered to be a major contributor to the economy through the processes of creativity, technological promotion, organizational innovation and change, job creation, income generation, economic competitiveness, and other aspects of overall social development and industrial expansion (Ahmad et al., 2019).

The recent report of the World Bank indicated that SMEs are under pressure to create more jobs as the need for jobs will increase by 600 million by 2030 to meet the growth in the population (Crawford, 2021). This pressure is associated with the limited capabilities of SMEs to access funds or to borrow from banks. In addition, the high competition that SMEs are facing due to increase competition is affected their survival (Bocconcelli et al., 2017). Moreover, the recent outbreak of COVID19 has presented the most ever difficult challenge for SMEs and threatened and still threatening their survival (Man & Chiun, 2020).

To meet this challenge and survive in this environment, SMEs have to deploy technology to enhance their performance. Using social media or Facebook as a platform for business has become a must nowadays (Ainin et al., 2015) and SMEs are under growing pressure to employ technology such as social media in order to survive (McCann & Barlow, 2015). Social media has the potential to increase sales, increase customer loyalty decrease costs, improve customer service, expand reach and brand awareness, drive traffic to a company's website, and improve business-to-business relationships (Ben Youssef et al., 2018; Hoffman & Fodor, 2010).

Against this background, the use of social media by SMEs is still under-researched (Abu Bakar et al., 2019; Koski et al., 2019; Odoom et al., 2017). This study will examine the predictor of adopting social media by SMEs and the consequence of the adoption on SMEs' business performance. Next section briefly discusses the literature.

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LITERATURE REVIEW

Researchers have no agreement on the factors that can affect the adoption of social media by SMEs. Previous studies indicated that the predictors of social media adoption varied. For example, researchers (Ahani et al., 2017; Shuib, 2015) found cost as an essential factor, while others view environmental and organizational factors as important predictors of social media adoption (AlSharji et al., 2018). There is limited studies looking at the technological factors itself maybe because most social media are free open source, and it is free to register and update. Thus, many business organizations, particularly SMEs, have less often to realize the benefits that this potential medium in business organizations.

Previous studies agreed that the technological context, such as relative advantage, compatibility, complexity, trialability, and observability, is not critical for the adoption of social media (Ahmad et al., 2019; AlSharji et al., 2018). On the other hand, studies by Abu Bakar et al. (2019) who examined the effect of accumulative effect of technological as well as the effect of the components of technological factors such as relative advnatage, complexity, and compatability and found that technological factor is a sigfnicant predictors of SM adoption while only comptability is important for such adoption. Effendi et al. (2020) examined the effect of technological context and found that it has a significant effect on SM adoption. Similarly, mixed findings were derived in studies related to the complexity of using social media (Ahani et al., 2017; Ahmad et al., 2019). Yet, the determinant of the technological factors in adopting social media by SMEs are still unclear (Abu Bakar et al., 2019).

The literature also indicates that study pertaining to social media adoption and its effects on SME's performance is also uncertain. There is a mixed effect between adoption of social media and SMEs performance. While there are studies that found a positive association between adopting social media and the performance of SMEs (Ahmad et al., 2018; Chatterjee & Kumar Kar, 2020; del Carmen Alarcón et al., 2015; Odoom et al., 2017; Qalati et al., 2021; Shuib, 2015) others found that social media does not affect the performance of SMEs at all (Ahmad et al., 2019; Gavino et al., 2019; Moy et al., 2020). The above discussion of previous findings indicates that there is a mixed findings regarding the effect of social media adoption on SMEs performance. In line with this conclusion regarding the mixed findings, the study of Ali et al. (2021) indicated that the effect of social media on SMEs' performance is still unclear especially in developing countries and more studies are needed.

Therefore, the purpose of this study is to examine the predictor of social media adoption by SMEs and the consequence of adopting social media on business performance of SMEs. The study deployed the diffusion (DOI) of innovation theory and resource-based view (RBV). DOI is used to explain the effect of compatibility, complexity, and relative advantage on social media adoption while RBV is expected to explain the effect of social media adoption of business performance of SMEs. Figure 1 shows the conceptual framework of this study.
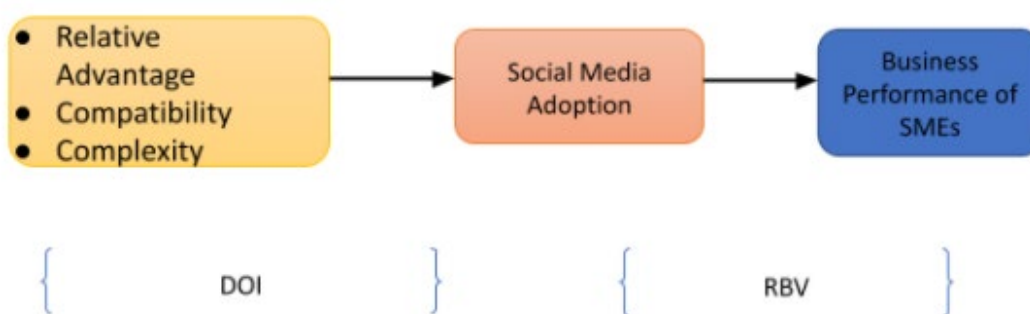
FIGURE 1: Conceptual Framework

RESEARCH METHODOLOGY

This study is a quantitative in nature. The study will be conducted in a developing country such as Saudi Arabia. The population is the SMEs in the country, and they are the unit of analysis. The respondents are the manager, owner, or managerial employees in SMEs. Random sampling technique will be deployed to collect the required data from the respondents. The data will be collected using a questionnaire. The questionnaire will be adopted from reliable sources and a validity as well as a reliability procedure will

be conducted prior to the field data collection. The data will be analysed using AMOS. The confirmatory factor analysis as well as the measurement model and structural model will be assessed.

CONCLUSION

This study aims to find the predictor and consequence of adopting social media by SMEs in developing countries. The study deploys the DOI and RBV to explain the relationship in the proposed model and to explain the variation in adoption of social media and business performance of SMEs. This study will contribute to the literature by examining the predictors and consequence of adopting social media by SMEs in developing countries. The study will also contribute to the literature by examining simultaneously the predictors and the consequence of adopting social media. This will solve the contradiction in the literature regarding the predictors as well as the consequence. As a way forward, the proposed model will be tested in future work using data that will be collected from SMEs in Saudi Arabia.

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The Role of Social Entrepreneurship Approach in Enhancing Homepreneur Business Opportunities: The Conceptual Model

Nor Hidayu Rahim
Graduate School of Business,
Universiti Kebangsaan Malaysia, Malaysia

Lokhman Hakim Osman
Che Aniza Che Wel
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

The pandemic is a public health crisis with deep implications for society. The negative impacts of the Covid-19 pandemic are felt greater than the positive ones. This may cause the socio-economic development in Malaysia to be more difficult. The purpose of this research is to explain the important role of social entrepreneurship factor, specifically focusing on human capital and social capital, in encouraging homepreneur business opportunities. The paper draws on the work of others, and thus adds personal conclusion from both direct experience and observation. The central argument is that social entrepreneurship approach will have positive effect on homepreneur business opportunity. Moreover, it is argued that human capital, and social capital at the individual level factors also promote social entrepreneurship activities which will push social improvement. The paper presents a theoretical research model incorporating social entrepreneurship factors to direct a future research agenda during this Covid-19 pandemic. The paper could be used as a research model by researchers to empirically test social entrepreneurship approach on homepreneur business opportunities. Moreover, practitioners can also gain benefit from the conceptual framework and promote social entrepreneurship. It is hoped that social entrepreneurship continues to grow and improve economic growth, sustainable competitiveness and prosperity for Malaysians.

Keywords: Social Entrepreneurship, Homepreneur, Covid-19, Malaysia

INTRODUCTION

The acute respiratory outbreak crisis or known as Novel Coronavirus (Covid-19) has brought unprecedented challenges for both people and society globally. The covid-19 crisis is ongoing situation with an unknown period. This makes it hard to anticipate and plan for the future (Weaver 2020). Since the pandemic started in December 2019 (Kuckertz et al. 2020), millions of people have been devastated by health, social, and economic implications of COVID-19 pandemic. World Health Organization (WHO) (2020) stated that COVID-19 is a highly transmittable from an infected person's when they cough, sneeze, speak, sing or breathe and people may also become infected by touching surfaces that have been contaminated by the virus when touching their eyes, nose or mouth without cleaning their hands. Therefore, many governments have taken responsibility in an effort to limit the virus spread by closing the 'non-essential' businesses and institutions for weeks or months (Gong et al. 2020; Zraick & Garcia 2020; Liguori & Winkler 2020; Ratten 2020). It shows that, this pandemic impacts on and transmission to health may worsen unemployment, poverty and inequality (Prasetyo & Kistanti 2020).

In Malaysia, the government has implemented movement control order (MCO) in their effort to flatten the curve of Covid-19, as the number of daily cases are still high. However, the implications of this MCO have caused many businesses to be severely affected and even some businesses had to close with a heavy debt in hand. Most companies had to reduce their number of staff in order to reduce the cost of operation. This shows that Malaysia's unemployment rate could get worse until the end of MCO although the unemployment rate for April 2021 fell to 4.6% (Department of Statistics Malaysia), the lowest rate since October 2020. Indeed, these closures hinder and eradicate the opportunities for many small business owners and institutional leaders to generate revenue (Weaver 2020). The pandemic has placed Malaysians, the vulnerable and the pandemic poor in a particularly precarious position (Simler 2020). Simler (2020) further stressed that those with little or no assets or savings to fall back on, informal workers who are not covered by or have inadequate social safety nets, and those who have lost their jobs, have been placed on unpaid leave, or experienced pay cuts because of movement control orders (MCO).

Malaysia government has introduced several economic stimulus packages like PRIHATIN; PRIHATIN Package for Small and Medium Enterprises (Additional Measures); National Economic Recovery Plan (PENJANA); the Malaysian Economic and Rakyat's Protection Scheme (PERMAI); and the Strategic Programme to Empower the People and Economy (PEMERKASA). Yet, mirroring the current situation, everyone in Malaysia from B40 (income of less than RM4850), M20 (income of between RM4850 to RM10959) and T20 (income higher than RM10959) has been affected and the worst category are B40 and those who were already vulnerable and struggling to make ends meet prior to the pandemic and MCO. At a civic level, achieving societal impact often requires multiple stakeholders with diverse backgrounds and motives to coalesce (Lumpkin & Bacq, 2019). The government and civil society could work together to eradicate poverty, foster equity, and promote resilience within the economy, by continuing to share their roles in enhancing the social protection system (Simler 2020). It has been proven that social entrepreneurship may in fact be better equipped to handle social problems (Bacq & Lumpkin 2020). Before the Covid-19 pandemic, social entrepreneurship is known as the best approach to handle simultaneous pursuit of economic, social, and environmental values for social development (Nga & Shamuganathan, 2010; Davari & Farokhmanesh, 2017). Moreover, community participation and local involvement can have an impact on a business through social entrepreneurship approach (Ismail & Daud 2020).

This pandemic forced many people to start doing small business for their life survival. With little financial support most of them prefer to do home-based business or we can refer them as 'homepreneur'. In Malaysia, literally the term 'homepreneur' is very rare to be used. Homepreneurs can be defined as business entrepreneur who operates from his or her home (Swami & Naidu 2020). Becoming a homepreneur is an excellent way to start small and gain entrepreneurial skills (Swami & Naidu 2020) and most important part is to having low operation cost. However, in Malaysia, the existing and new homepreneurs is seen struggling to run and sustain their business because of MCO restrictions and less consumerspending power. Abdul Hamid (2020) in his report highlighted that COVID-19 has impacted consumer behaviour in many ways, especially in spending, e.g from from shopping spree to itemising essentials. While these homepreneurs are in their own premises and in challenging circumstances, a study related to enhance their business opportunities through social entrepreneurship approach should be made viable soon.

At the time of this study, it is not possible to determine whether studies related to the development of social enterprise sectors during the COVID-19 outbreak were conducted. On the other hand, studies on the relevance of the involvement of social entrepreneurship and homepreneur growth are limited. Thus, the main objective of this research is to explain the important role of social entrepreneurship approach in enhancing homepreneur business opportunities which may then increase economic growth and prosperity. This research aims to answer the question: Do social entrepreneurship played and important role in enhancing homepreneur business opportunities? Therefore, this study will contribute to the literature. First, we will review the literatures and suggest remedies that could direct future studies. Second, we present the conceptual model which provides a framework for future research. Third, we deepen the discussion by proposing some suggestions regarding how SE affect homepreneur business opportunities. We believe that the proposed research model could be adopted and further developed in future empirical studies.

LITERATURE REVIEW

Homepreneur

The term "homepreneur' mostly being used by researchers from India. Swami and Naidu (2020) describes homepreneurs as business entrepreneur who run business from his or her home. However, in Malaysia the term is rarely used but they refer as home-based business instead. To date, study noticed only one local community platform that formally used the term homepreneur called 'Santai Homepreneur'. Homepreneurs are talented as they are multi-task of governing their home as well as homepreneurship (Indrani & Priyadharshini 2017). However, there is no formal definition for now. Homepreneurs will used any spare room, kitchen, garage, living room or available area as their working space to operate their business activities (Swami & Naidu 2020). Homepreneurs create employment opportunities for society. Moreover, it allows unemployed individual to become self-employed, to establish small businesses and earn their livelihood. This suggest that homepreneur as a critical element for economic growth and social development. Generally, homepreneur business opportunities comes from their own product or service, drop shipping and becoming agent or stockist for other products. The advantage of becoming homepreneur including (i) reduced operating expenses, (ii) safe working environment

especially for women and physically disadvantaged people and (iii) flexible working time which they can balance their family needs and business work. Therefore, this study proposed to define homepreneur as an individual who doing business from home and generating revenue.

Social Entrepreneurship

Social entrepreneurship applies the notion of entrepreneurial intervention, drawn from the world of business economics, to attempts at addressing social problems. Scholars emphasized that social entrepreneurship is the sub-discipline within the field of entrepreneurship (Certo & Miller 2008). Social entrepreneurship can be defined as an innovative initiative to pursue opportunities to effectuate social change and/or address social needs and has sustainable financial stability (Mair & Marti 2006; Mair & Noboa 2006). Thus, we view social entrepreneurship as a set of interlocking opportunity-based activities by competent and purposeful individuals who through their actions, can make a difference in society and are bounded by context. Thus, we conceptualize social entrepreneurship as a process that involves individuals (social entrepreneurs) engaging in a specific behaviour (i.e. social entrepreneurial behaviour) and tangible outcomes (social impact). However, the pandemic had caused a sudden shift in societal needs which exposed the limited access of "mission drift" and reveled the need for mission agility. Therefore, social entrepreneurship should adopt a mindset of mission agility during this pandemic (Bacq & Lumpkin 2020). In fact, recent study shows that mission agility may benefit social entrepreneur during crises (Weaver 2020). Thus, in this study it is important for us to identify the role of social entrepreneurship from the perspectives of human capital and social capital in creating social value, specifically to enhance homepreneur business opportunities.

A. Human Capital

Human capital can be described as the range of valuable knowledge and skills an individual has accumulated over time (Coleman 1990; Becker 1993; Davidsson & Honig 2003). Human capital is developed through education and previous experience and thus contributes to the direct and indirect knowledge (Choi & Chang. 2020). The knowledge of social entrepreneur includes the plan to start social entrepreneurship activities (Jiao 2011). Previous scholars found knowledge plays an important role that could inspiring ideas of social ventures (Guclu et al. 2002). Moreover, individuals' knowledge and experience will increase their cognitive abilities which leads to productive and efficient activities (Becker 1975; Davidsson & Honi 2003). Therefore, social entrepreneur with a greater or higher quality of human capital can better perceive and exploit more opportunities for new value creation (Choi & Chang 2020) which is the underlying mechanism of social transformation (Jiao 2011). Social entrepreneur mainly focuses on the idea and then integrate the resources to realize it (Jiao 2011). Thus, human capital play an important role in the process of social entrepreneurship.

B. Social Capital

Social capital can be defined as "the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of processing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu & Wacquant 1997). Burt (1992) further described that social capital is created by a network in which people, as the agent, can broker connections between otherwise disconnected segments. Social capital derives from a founder's social network (Tsai & Ghoshal 1998; Bornstein 2004). Generally, the concept of social capital refers to resources embedded in networks which can be mobilised through social interactions that lead to potential benefits for both individual and collective actors (Brunie 2009). Moreover, Bornstein (2004) described that network make big differences in the process of social entrepreneurship. Dees et al. (2002) also highlighted that social entrepreneur should focus on the network relationships because these relationships are needed for entrepreneurial performance and to create innovative arrangements to deal with the social problems. Furthermore, Leadbeater (1997) argued that social capital that exists in a social entrepreneur's network is fundamental to social entrepreneurship activities. Porte (1998) argued, "....social capital stands for the ability of actors to secure benefits by virtue of membership in social networks or other social structures". Onyx and Bullen (2000) argued along the same line: "The development of social capital requires the active and willing engagement of citizens working together within a participative community."

PROPOSITIONS

The rise of social entrepreneurship in social value creation has been highlighted by many individuals, parties, organizations and institutions in Malaysia as the thriving sectors in countless industries. Based on the review of the aforesaid literature, the important of social entrepreneurship and its element which are social capital and human capital have been discussed to provide a considerable impact on homepreneur business opportunities. Due to that, this study proposes the following proposition:

H1:   The role of social entrepreneurship approach will be positively enhancing homepreneur business opportunities.
H1a: The more human capital a social entrepreneur has, the stronger the drive to start the new social entrepreneurship activities related to homepreneur business opportunities.
H1b: The more social capital a social entrepreneur has, the stronger the drive to start the new social entrepreneurship activities related to homepreneur business opportunities.

CONCEPTUAL MODEL

Figure 1 shows the independent variable of social entrepreneurship factor that might lead to enhance homepreneur business opportunities as dependent variable.

FIGURE 1: The conceptual model

Independent Variable   Dependent Variable

Social Entrepreneurship

- Human Capital
- Social Capital

Homepreneur Business Opportunities
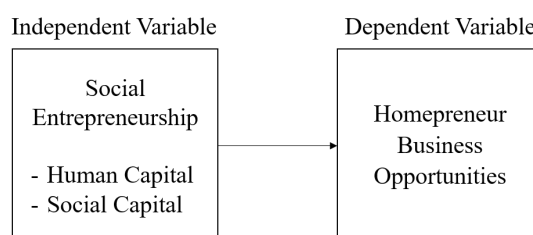
METHODOLOGY

This quantitative descriptive research explained the important role of social entrepreneurship factor to encourage homepreneur business opportunities. From the perspective of the research objective and the need for data, this research was classified as a quantitative fundamental research. The main source of data for the purpose of this analysis was primary data obtained from local wisdom based home entrepreneurial business (small business operators). The research population of respondents or homepreneurs was derived from community business public group in Shah Alam. This study proposes to adopt the convenience sampling technique due to current situation of pandemic Covid-19. Survey questionnaire will be used as our method of data collection. The survey questionnaires for data collection will be developed from measures drawn from the existing instruments. Responses are measured on a five-point Likert scale, from 1 = "strongly disagree", to 5 = "strongly agree".

CONCLUSION

To date, no one can predict when COVID-19 outbreak will end. Homepreneurs should be helped by using existing resources. The involvement of social entrepreneurship platform is hoped could asssist homepreneurs to sustain their business. The main contribution of this paper is the construction of a conceptual model for homepreneur business opportunities through social entrepreneurship approach. The outcomes of this study will help in improving the mindset of homepreneur so that they would become more familiar with social entrepreneurship concept. By doing so, factors that promote social entrepreneurship and achieve the important social impacts would help to build a more harmonious society. We hope that other studies will take up the challenge of further exploring and testing these ideas. Further studies can opt to take the following directions. Researchers can empirically test the conceptual model to verify our propositions. Finally, future research can also theoretically extend our model by introducing other possible antecedents.

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Culture of Openness in Increasing Competitive Advantage on Women's Small-Scale Business in the Covid-19 Period in the Coastal Area of Medan

Ritha F. Dalimunthe
Faculty of Economics and Business,
Universitas Sumatera Utara, Indonesia

Pujiati
Faculty of Cultural Science,
Universitas Sumatera Utara, Indonesia

ABSTRACT

This study was to figure out the effect of responsiveness to change, creativity, and ability to accept change on competitive advantage on women's small-scale business in the COVID-19 period in the coastal area of Medan. Respondents were women entrepreneurship in the coastal area of Medan with a total of 71 respondents. According to the data processing result on a questionnaire using quality data test, descriptive statistics analysis, classical assumption test, multiple linear regression analysis, F-test, and also t-test, the study proved that variables of responsive to change, creativity, and ability to accept change simultaneously and significantly affected the competitive advantage for women's small-scale business in the coastal area of Medan. Creativity significantly and partially affected the competitive advantage of women's small-scale businesses in the coastal area of Medan. Meanwhile, being responsive to change and the ability to accept change did not significantly affect the competitive advantage of women's small-scale businesses in the coastal area of Medan.

Keywords: Ability to Accept Change, Competitive Advantage, Creativity, Responsive to Change

INTRODUCTION

At this time, there are complex phenomena due to the COVID-19 pandemic causing poverty after health protocol was implemented and affecting many fields. The poverty in Indonesia and even many other countries around the world is proved by the condition of the society that lacks assets and finances. Poverty also causes someone unable to do activity in society. According to Soekanto (2012), poverty was a condition when someone could not maintain his/her life according to living standards and optimize her/his potential.

According to BPS North Sumatra (2019), there are 600.000 poor women in North Sumatra. The women were born in the 80s-90s. The solution for this poverty is encouraging women's entrepreneurship so that they will have a competitive advantage for their business.

According to Dalimunthe (2020), a women's small-scale business is a solution to decrease poverty in an area. The coastal area of Medan includes Medan Belawan, Medan Marelan dan Medan Labuhan. Small scale business is a solution to poverty since people will earn money and can offer jobs for others. Moreover, it will also earn money for the employe from small scale business in form of salary. This should make people see an opportunity to earn money like the women's small-scale business in the coastal area of Medan. The result for Sibarani and Dalimunthe`s study (2020) stated that in business strategy, surprisingly product quality, product value, and online sales did not show an optimal result done by the women's small scale business.

A competitive advantage for women's small-scale businesses is a challenge that must be obtained to make sure that the products produced have good quality and uniqueness. Moreover, these products must satisfy buyers than any other products in the market. A small scale business, including women's small scale business, must have a competitive advantage because the competitive advantage is an ability to see an opportunity in the market based on target decision. A problem to run this business based on a pre-survey conducted in July 2020 on women's small-scale business in the coastal area of Medan was not only modal but on women's small-scale business also the culture of openness in this COVID-19 pandemic.

The culture of openness based on Porter et al. (2017) is a company that observes any social information related to their business and also has the attitude and culture to adapt to any change. This

also fits with Supriadi and Dalimunthe`s study (2020) stated that the culture of openness is the ability to respond fast to any change because there is a new challenge. The ability to be creative is to adapt to new work hours and accept new challenges. Then, the entrepreneur will get a new experience called innovative work as they have creative ideas in running their business and a will to study from their experiences.

The problem for small-scale businesses, especially women's small-scale businesses, is the lack of ability in doing digital marketing to encourage their business so that they feel difficult to reach a bigger market (Dalimunthe, 2018). Moreover, in this COVID-19 pandemic, there is a health protocol that forces people to have social distance and avoid throng and mobilization. This will surely cause trouble for small-scale businesses, especially women's small-scale businesses because they will have limited-selling activity and they have to do digital marketing as the implementation of Industry 4.0.

This study is the Research Master Plan (RIP) of Universitas Sumatera Utara (USU) to provide guidelines for future study in USU. This study is to develop human`s welfare and also encourage economical growth as well as developing area that is integrated to the unitary state of republic Indonesia.

This study hopefully can solve poverty faced by women's small-scale businesses in the coastal area of Medan. Researchers identified a range of cultures of openness by women small-scale businesses who have been the object of the study so that government will get some advice to regulate some rules on helping women's small-scale businesses. On the other hand, USU which places in Medan should take a part in raising social welfare through increasing women`s economy by observing the competitive advantage from their business. In the COVID-19 period, we need to motivate women's small-scale businesses to decrease poverty due to a lot of laying off, especially female employe, so that women's small-scale businesses have a big impact to achieve their local economical growth and society empowerment (Dalimunthe, 2018). Small-scale entrepreneurs who play important role in the local area like the coastal area of Medan need to raise their competitive advantage by using a culture of openness through digital marketing to reach a bigger market. We also need to observe the culture of openness to increase the competitive advantage on women's small-scale business in the COVID-19 period in the coastal area of Medan.

A Culture of Openness

A company will have a high cultural openness if they observe social information as to their cultural corporation esthetically and consider it to any other information while taking any social decision (Porter et al. 2017). Porter also suggested studying the culture of openness as an individual`s achievement to accept new different things in a working place. While according to Griffin et al. (2004), a person who could have openness to a new experience is said to be an imaginative person, care about something aesthetics, independent, and also having tolerance toward something ambiguous as a result of a new experience. Allworth dan Hesketh, (1999) called this an adaptive-working model as it correlates with any change to work.

Consequently, a company, including a small company, should have a proactive attitude so that the company has an innovative and creative idea which are a result of innovative work based on every single individual in the small company including women's small-scale businesses in the coastal area of Medan. The innovative work starts with a creative idea from every person in the company in which affecting working performance. Innovative-working habit is a continual process until every person in the company has new ideas which can be implemented as developing a habit to be more developed in working place. This company`s culture comes from individual`s openness to have creative ideas toward businesses they run.

A person who has a backup in running a business will have social sources as well as an emotional source to run a business including women's small-scale businesses. This will make owners of small-scale businesses more optimistic about the business they run because of organizational value namely innovative work. This study will observe the culture of openness, which is part of innovative work. The owners of small-scale businesses will be observed on how they are responsive to change, their creativity applied in a new working system, and their response to face a new challenge.

Competitive Advantage

Competitive advantage is an ability from a value that is created by an entrepreneur to make consumers happily accept products given by the company more than the value of the product produced. The competitive advantage comes from much paradoxical activity which is done by the company to design, produce, sell, handing over, and support their products. Each activity can support the position of relative cost and create differentiation.

Based on Kotler dan Armstrong (2014), competitive advantage is an advantage toward competitors gained by offering lower value and also by giving higher benefits due to its higher price. A company will have a competitive advantage because of producing superior value at a lower cost. A competitive advantage cannot be perceived well by seeing a company as unity.

Small scale business (Saiman 2014) which has competitive advantage should know about how to reach it, such as (1) price or value, (2) pleasing consumers, (3) consumer`s experience, (4) written product`s attribute and (5) a special-unique service. The figure of culture of openness and competitive advantage on women's small-scale business in the coastal area of Medan is shown below.

FIGURE 1: A Culture of Openness and Competitive Advantage on Women's Small-Scale Business in the Coastal Area of Medan
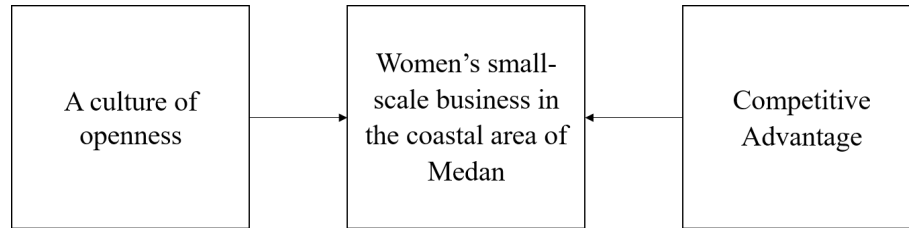
METHOD

Type of Study

This study is an experimental design study using a qualitative and quantitative approach to women's small-scale businesses in the coastal area of Medan.

Type of Data

In this study, researchers collected primary data directly from objects of the study using interviews and observation.

Data Collection Method

A. Documentation Study – The data and information were taken from textbooks and also from journals that correlated with the field of the study.
B. Interview – The interview was conducted on women's small-scale businesses in the coastal area of Medan.
C. Observation – Researchers also observed objects of the study namely women's small-scale business in the coastal area of Medan.

Techniques in Data Analysis

A. Descriptive Analysis Method – The data could be analyzed using the Descriptive Qualitative Analysis Method. The descriptive Qualitative Analysis Method is an analytical method used to observe a holistic correlation about a phenomenon.
B. Instrument of the Study – The instrument in this study was a questionnaire made by the researcher's team based on the culture of openness aspect and competitive advantage aspect on women's small-scale business in the coastal area of Medan. The culture of openness aspect consisted of being responsive to change, the ability to be creative in implementing new working systems, and the ability to accept new change. The competitive advantage consisted of quality, value, and online marketing for products of women's small-scale businesses in the coastal area of Medan. In every interview, the researcher used the Likert scale.

RESULT AND DISCUSSION

This study used data obtained from respondents by giving them a questionnaire and all questionnaires were back to the researcher completely 71 questionnaires. Data from questionnaires can be seen below.

TABLE 1: Data from Questionnaire

Information	Quantity
Questionnaire sent	71
Questionnaire back	71
Questionnaire not back	-
Questionnaire rejected	-
The questionnaire used in the study	71
Percentage of questionnaire back	100%

Source: Data collected by researchers, 2021

Respondents` data characteristic in this study was classified by gender, age, educational background, long time in business, business modal and types of respondents attached on Table 2, Table 3, Table 4, Table 5, Table 6, and Table 7.

TABLE 2: Distribution of Respondents' Identity Based on Gender

Gender	Frequency	Percentage
Man	6	8.5%
Woman	65	91.5%
Total	71	100%

Source: questionnaire of the study 2021

Displayed in Table 2 is the gender of the respondents. The respondents are 71 people consisting of 65 women (91.5%) and 6 men (8.5%). We can conclude that the total respondents in the woman community of the northern coastal area of Medan consist of women and men.

TABLE 3: Distribution of Respondents' Identity Based on Age

Age	Frequency	Percentage
21-30	12	17%
31-40	15	21%
41-50	22	31%
≥51	22	31%
Total	71	100%

Source: questionnaire of the study 2021

Based on Table 3, total respondents from the women community of the northern coastal area of Medan are more dominated by entrepreneurs aged ≥51, namely 22 people (31%). There are 12 entrepreneurs aged 21-30 (17%), 15 entrepreneurs aged 31-40 (21%), 22 entrepreneurs aged 41-50 (31%). Based on that, we can say that generally members of the women community of the northern coastal area of Medan are women and men who have been quite old and enjoying their advanced years by doing entrepreneurship.

TABLE 4: Distribution of Respondent' Identity Based on Their Education

Education	Frequency	Percentage
Elementary School	16	22.5%
Junior High School	14	20%
Senior High School	38	53.5%
University	3	4%
Total	71	100%

Source: questionnaire of the study 2021

Based on education level, all respondents from women community of northern coastal area of Medan are divided into 10 respondents who graduated from senior high school (40%), 7 respondents graduated from elementary school (28%), 6 respondents graduated from junior high school (24%), and 2 respondents graduated from university (8%). Based on the data, it can be seen that respondents' educational background mostly are graduated from senior high school.

TABLE 5: Distribution of Respondents' Identity Based on a Long Time in Business

Long Time	Frequency	Percentage
<5 years	46	65%
5-10 years	13	18%
>10 years	12	17%
Total	71	100%

Source: questionnaire of the study 2021

Table 5 shows that all respondents from women community of northern coastal area of Medan mostly have started their business less than 5 years old which are 46 people (65%), while 5-10 years old are 13 people (18%) and >10 years old is 12 people (17%). Based on the data, it can be concluded that the total respondents who are from the women community of the northern coastal area of Medan are mostly less than 5 years.

TABLE 6: Distribution of Respondents' Identity Based on Business Modal

Business Modal	Frequency	Percentage
<Rp1.000.000	15	21%
Rp1.000.000-Rp5.000.000	48	68%
>Rp5.000.000	8	11%
Total	71	100%

Source: questionnaire of the study 2021

Based on modal, there are 48 respondents with modal of Rp1.000.000-Rp5.000.000 (68%), 15 respondents with modal of <Rp1.000.000 (21%), and 8 people with modal of >Rp5.000.000 (11%). Thus, it can be concluded that total respondents from the women community of the northern coastal area of Medan mostly only need modal ranging between Rp1.000.000-Rp5.000.000.

TABLE 7: Distribution of Respondents' Identity Based on Type of Business

Type of Business	Frequency	Percentage
Food/ Culinary	27	38%
Traditional Medicine	1	1.5%
Poultry	1	1.5%
Salted Fish Production	31	44%
Online-Clothing Store	2	3%
Marine Product	3	4%
Street Vendor	4	6%
Service (Barber)	1	1%
Selling Chicken Meat	1	1%
Total	71	100%

Source: questionnaire of the study 2021

Based on the type of business, 31 respondents have a business in salted fish production (44%), 27 respondents in food/culinary (38%), 1 respondent in chicken poultry (1,5%), 1 respondent in traditional medicine (1,5%), 2 respondents in an online clothing store (3%), 3 respondents in the marine product (4%), 4 respondents in street vendor (6%), 1 respondent in service (1%) and 1 respondent as chicken meat seller (1%). Thus, it can be concluded that total respondents from the women community of the northern coastal area of Medan mostly have salted fish production as their business.

Descriptive Statistics Analysis

Descriptive statistics gives a general framework from the object of the study used as a sample. Data explanation using descriptive statistics hopefully gives the first framework about the problem studied, information about descriptive statistics. From the questionnaire filled by respondents, it can be obtained a framework about descriptive statistics variable of the study based on Table 8.

TABLE 8: Result of Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Responsiveness to change (X1)	71	19.00	40.00	32.3099	3.53186
Creativity (X2)	71	32.00	45.00	37.5493	2.77122
Ability to accept change (X3)	71	27.00	45.00	35.8451	4.06254
Competitive advantage (Y)	71	23.00	35.00	30.3380	2.46080
Valid N (listwise)	71				

Source: Result of data analysis using SPSS

Based on data displayed in Table 8, it can be explained that the data used in this study is as below:

1. Variable of responsive to change has 71 samples with a minimum value of 19, a maximum value of 40, and a mean of 32.30. The standard deviation is 3.531.
2. Variable of creativity has 71 samples with a minimum value of 32, a maximum value of 45, and a mean of 37.54. The standard deviation is 2.771.
3. Variable of ability to accept change has 71 samples with a value of 27, a maximum value of 45, and a mean of 35.84. The standard deviation is 4.062.
4. Variable of motivational work has 71 samples with a minimum value of 23, a maximum value of 35, and a mean of 30.33. The standard deviation is 2.460.

Result of Classical Assumption Test

Classical assumption test is used to make sure that in this study there is no multicollinearity, and heteroscedasticity and the data resulted have a normal distribution. If multicollinearity and heteroscedasticity do not appear in this study, the classical assumption is filled.

A. Normality Test

Normality test in this study was conducted using One-Sample Kolmogorov-Smirnov Test. The researcher chooses the One-Sample Kolmogorov-Smirnov Test because the result of this test is more relevant rather than using the graphic test. In One-Sample Kolmogorov-Smirnov Test, a datum can be called having a normal distribution if significance value or value of Asymp Sig. (2-tailed) is bigger than 0,05.

TABLE 9: Result of One Sampel Kolmogorov-Smirnov Test

		Unstandardized Residual
N		71
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.90181563
Most Extreme Differences	Absolute	.078
	Positive	.074
	Negative	-.078
Test Statistic		.078
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Source: Result of data analysis using SPSS

Table 9 shows the significance value of Asymp. Sig. (2-tailed) is 0.200 which is bigger than 0.005, so it can be concluded that data analyzed in this study are distributed normally.

B. Multicollinearity Test

This test's purpose is to test whether the regression model correlates with independent variables or not. A good regression model should not correlate with independent variables. If independent variables correlate, then these variables are not orthogonal. The orthogonal variable is an independent variable that has a correlational value between each other as many as 0.

TABLE 10: Result of Multicollinearity Test

Coefficients[a]		
Model	**Collinearity Statistics**	
	Tolerance	**VIF**
(Constant)		
1 Responsive to Change (X1)	.724	1.382
Creativity (X2)	.738	1.355
Ability to Accept Change (X3)	.720	1.388
a. Dependent Variable: competitive Advantage (Y)		

Source: Result of data analysis using SPSS

According to Table 10, we can see that the tolerance value for each independent variable is not less than 0.1 and for VIF value is not more than 10. Hence, it can be concluded that this regression model has no multicollinearity among its variables.

Multiple Linear Regression Analysis

Analysis that is used in this study is linear regression analysis to determine the correlation between accounting information system, leadership style, and motivation toward employe`s performance.

TABLE 11: Result of Multiple Linear Regression

Coefficients[a]					
Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	8.670	3.304		2.624	.011
1 Responsive to change (X1)	.001	.077	.001	.010	.992
Creativity (X2)	.449	.098	.506	4.602	.000
Ability to accept change (X3)	.133	.067	.220	1.977	.052
a. Dependent Variable: Competitive Advantage (Y)					

Source: Result of data analysis using SPSS

The coefficient on table can be arranged as a simple equation as below:
$$Y = 8.670 + 0.001X_1 + 0.449X_2 + 0.133X_3 + e$$

While:
Y = Competitive Advantage
X_1 = Responsive to Change
X_2 = Creativity
X_3 = Ability to accept Change

According to the equation, it can be explained that:

a. Variable of responsive to change, creativity, and ability to accept change has a positive sign toward the competitive advantage.

b. Responsive to change gives the value of 0.001 showing that (X_1) has a positive effect on the competitive advantage (Y). It means if the variable of responsiveness to change is raised to 1 point (100%), the variable of the competitive advantage will also increase to 0.001(10.0). The response to change will get better with an assumption, if the other variables are constant, the competitive advantage will increase.

c. The coefficient of creativity gives the value of 0.449 showing that (X_2) has a positive effect on the competitive advantage (Y). It means if the variable of creativity is raised to 1 point (100%), the variable of the competitive advantage will also increase to 0.449(44.9). The creativity will get better with an assumption, if the other variables are constant, the competitive advantage will increase.

d. The coefficient to accept change gives the value of 0.133 showing that (x_3) has a positive sign to the competitive advantage (Y). It means if the variable to accept new challenges is raised to 1 point (100%), the variable of the competitive advantage will also increase to 0.133(13.3). The ability to accept new challenges will get better with an assumption, if the other variables are constant, the competitive advantage will increase.

Result of Hypothetical Study

A. Result of Coefficient Determination (Adjusted R2)

Coefficient determination is to measure how far the model`s ability to explain the dependent variable is. The range value is between 0-1, if the Adjusted R^2 value is small, it means that ability of independent variables to explain the variation of the dependent variable will be so limited and vice versa. If the Adjusted R^2 value is big, it means that ability of independent variables to explain the variation of dependent is big also. The Adjusted R^2 value can be seen from the table below.

TABLE 12: Result of Coefficient of Determination (Adjusted R^2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.635ᵃ	.403	.376	1.944

a. Predictors: (Constant), Ability to accept the new challenge (X3), Creativity (X2), Fast to respond to any change (X1)
b. Dependent Variable: Competitive Advantage (Y)
Source: Result of data analysis using SPSS

In Table 12, the Adjusted R Square value is 0.376 which means 0.376 or (37.6%). Independent variables which are responsive to change, creativity, and ability to accept change can describe the competitive advantage. While the rest 62.4% is described and explained by the other variable that is not included in the model study.

B. Result of Simultaneous Test (F-statistic Test)

F-test is used to see the effect of the accounting information system. leadership style and motivational work on employee`s performance simultaneously. The effect needs to be tested to see whether a regression model can be carried on using a t-test(partial) or not. If the F-test result affects significantly the regression model, this can go on using the t-test. On the other hand, if it is not, a t-test (partial test)cannot be carried on because all the independent variables cannot affect dependent variables. Here is the result of the F-test.

TABLE 13: Result of Simultaneous Test

	Model	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	170.704	3	56.901	15.058	.000[b]
1	Residual	253.183	67	3.779		
	Total	423.887	70			

a. Dependent Variable: Competitive Advantage (Y)
b. Predictors: (Constant), Ability to Accept New Change (X3), Creativity (X2), Responsive to Change (X1)

Source: Result of data analysis using SPSS

According to the table, simultaneous test(F-statistic test) obtains F-calculated value of 15.058 with a significant level of 0.000, and F- tabulated obtains using calculation by seeing the degree of freedom value namely df1 (n1) and df2 (n2). The formula is df1 = 3 and df2 = 67, so the F-tabulated is 2.72. It means that the F- calculated =15.058 > the F- tabulated = 2.72 with a significance level < 0.05 = 0.000; it can be concluded that variable of responsive to change, creativity, and ability to accept change simultaneously affect the competitive advantage on women's small-scale business.

C.   Result of Partial Test (t-statistic Test)

This test is basically to figure out how far the effect of independent variables partially(individual) to variation of dependent variables. Based on the result of regression analysis stated that accounting information system, leadership style, motivational work had a positive correlation to employe`s performance, while to see significance could be done by comparing the significant variable value with probability 5% namely 0.05 A fundamental reason for taking the decision was based on its significance, if the significance value was < 0.05 so dependent variable partially and significantly affects the dependent variable and vice versa, and then consider the t-tabulated in this study. Respondents in this study were 71 data with total variables 4 and df or degree of freedom is 67, so the t-tabulated was 1.9167.

TABLE 14: Result of Partial Test

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	8.670	3.304		2.624	.011
	Responsive to change (X1)	.001	.077	.001	.010	.992
1	Creativity (X2)	.449	.098	.506	4.602	.000
	Ability to accept new challenge (X3)	.133	.067	.220	1.977	.052

a. Dependent Variable: Competitive Advantage (Y)

Source: Result of data analysis using SPSS

Table 14 explains the result of the t-test in this study.

1.   The significance level for the responsive to change variable is 0.992 which is bigger than 0.05 and the t- calculated value is 0.010 < 1.99167. This result shows that responsive to change in this study does not correlate significantly to the competitive advantage.

2.   The significance level for the creative variable is 0,000 which is smaller than 0,05 and the t-calculated value is 4.602 > 1.99167. This result shows that creativity in this study correlates significantly to the competitive advantage.

3.   The significance level for the ability to accept the change variable is 0.052 which is bigger than 0.05 and the t- calculated value is 1.977 < 1.99167. This result shows the ability to accept change in this study correlates significantly to the competitive advantage

CONCLUSION

Based on the test which was conducted using multiple linear regression analysis, the following conclusions can be drawn:

1. From the partial test result, the responsive to change variable had a value of t-calculated > t-tabulated or 0.010 < 1.99167 with a significance level of 0.992 > 0.05, so it can be concluded that responsive to change significantly affects the competitive advantage.
2. From the partial test result, the creative variable had a value of t-calculated > t-tabulated or 4.602 > 1.99167 with a significance level of 0.000 < 0.05, so it can be concluded that creativity significantly affects the competitive advantage.
3. From the partial test result, the ability to accept change variable had a value of t-calculated < t-tabulated or 1.977 < 1.99167 with a significance level of 0.052 > 0.05, so it can be concluded ability to accept change does not significantly affect the competitive advantage.
4. From the simultaneous test, responsive to change, creativity, and ability to accept change variable on the competitive advantage showed that the F- calculated > F-tabulated or 15.058 > 2.72 with a significance level of 0.000 < 0.05, so it can be concluded that responsive to change, creativity, and ability to accept new challenge simultaneously and significantly affect the competitive advantage.

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Managerial Ties of SMEs and Performance in a Transition Economy: In the Case of Kazakhstan

Ugur Choban
Suleyman Demirel University, Kazakhstan

Noor Azuan Hashim
Abu Hanifah Ayob
Faculty of Economics and Management
University Kebangsaan Malaysia, Malaysia

ABSTRACT

From the network and resource-based perspectives, this current study examines the different roles of two types of managerial ties on firm action as a response to market opportunities as well as their direct and indirect effects on firm operational performance. Using data from 251 managers of SMEs in Kazakhstan, the study has demonstrated that the market-oriented ties with business partners would foster firm performance only when they stimulate market-oriented action. In contrast, ties with state officials would directly enhance firm performance because they facilitate a protective shield against institutional voids. Hence, this study is important in terms of understanding the different effects of two types of managerial ties on firm performance. Besides practical implications might address the proper formulation of networking strategies to contribute to superior firm performance.

Keywords: Managerial Business Ties, Managerial Government Ties, Opportunity Capture, Firm Performance, SMEs

Kompetensi Usahawan, Strategi Pengukuhan Kesinambungan Perniagaan dan Jangkaan Prestasi Usahawan Perusahaan Kecil dan Sederhana Persediaan Era Endemik Covid-19

Saadan Mohamed Senin
Noor Hasni Juhdi
Fakulti Ekonomi dan Pengurusan,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRAK

Tujuan kertas kerja ini adalah untuk menganalisis hubungkait antara kompetensi usahawan, pelan kesinambungan perniagaan dan jangkaan prestasi syarikat perusahaan kecil dan sederhana di Malaysia. Kajian ini akan menggunakan pendekatan kuantitatif dan kaedah borang soalselidik. Responden terdiri daripada syarikat yang berdaftar di SME Corporation Malaysia di mana terdapat lebih 213,395 dalam senarai. Hasil kajian menjangkakan bahawa kompetensi usahawan (dimensi kreativiti, pemikiran keusahawanan, penyelesaian masalah, penyelesaian konflik) mempunyai hubungan positif dengan pelan kesinambungan perniagaan dan juga dengan jangkaan prestasi syarikat. Hasil kajian perlu membuktikan secara empirikal bahawa strategi pengukuhan kesinambungan perniagaan berperanan sebagai pengantara dalam hubungan di antara kompetensi usahawan dan jangkaan prestasi syarikat.

Kata kunci: kompetensi usahawan, strategi pelan kesinambungan perniagaan, jangkaan prestasi, pengantaraan, SME Corporation Malaysia, endemik COVID-19

Personality and Motives for Self-Employment

Abu H. Ayob
Hazrul Shahiri
Hamizah Abd Hamid
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Personality is one of the dominant intrinsic determinants in understanding human behaviors. Although considerable research has examined the common characteristics of entrepreneurs, scholars have mostly neglected the binary motives for self-employment. This research examines the relationship between the Big Five personality traits and opportunity-versus-necessity entrepreneurship. In particular, we study how openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism are related to the propensity for being opportunity (creative) entrepreneurs as opposed to necessity (routine) entrepreneurs. This study tests the hypotheses using World Values Survey Wave 6 data amongst 3,859 individuals in 20 countries. Controlling for other demographic and institutional factors, the results shows that opportunity entrepreneurs are more open but less conscientious and agreeable than necessity entrepreneurs. From this, we learn that the personality of entrepreneurs is heterogeneous upon their motive for self-employment.

Kesediaan Teknologi dan Kesannya Terhadap Prestasi Adaptif: Disederhanakan oleh Personaliti Proaktif

Roshayati Abdul Hamid
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Abd Walid bin Abd Hamid
UKM-Graduate School of Business,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRAK

Kerancakan penggunaan teknologi digital telah memberi cabaran baru kepada organisasi. Penggunaan teknologi digital memerlukan pengubahsuaian dalam beberapa aspek organisasi termasuk budaya organisasi, infrastruktur teknologi dan struktur kerja. Namun, masih kurang kajian yang melihat dari perspektif bagaimana cabaran teknologi digital perlu ditangani di peringkat pekerja. Transformasi kearah digitalisasi memerlukan kesediaan pekerja untuk mengadaptasi perubahan dalam struktur kerja yang baru. Adaptabiliti adalah keupayaan pekerja untuk mengadapatasi perubahan. Pekerja yang mempunyai prestasi adaptif mampu menyelesaikan masalah secara kreatif, menguruskan situasi yang tidak menentu, mempelajari sesuatu dengan cepat, mampu menangani tekanan serta menguruskan krisis dengan baik. Prestasi adaptif dapat ditingkatkan apabila pekerja bersedia menerima penggunaan teknologi digital iaitu kesediaan teknologi. Kesediaan teknologi adalah kecenderungan pekerja untuk menggunakan teknologi baru bagi mencapai matlamat yang berkaitan dengan kehidupan dan pekerjaan. Namun, kecenderungan individu dalam menggunakan teknologi digital adalah berbeza-beza bergantung kepada perbezaan individu iaitu personaliti yang dimiliki. Oleh itu, kajian ini telah mengemukakan beberapa cadangan kajian penyelidikan dari aspek kesediaan teknologi pekerja dalam mengadaptasi teknologi bagi melancarkan pengunaan teknologi digital dalam pengurusan organisasi dan personaliti proaktif sebagai penyederhana yang menguatkan hubungan antara kesediaan teknologi dan prestasi adaptif.

Kata Kunci: Kesediaan Teknologi, Personaliti Proaktif, Prestasi Adaptif, Digitalisasi.

PENGENALAN

Organisasi mula mengorak langkah kearah penggunaan teknologi digital dalam urusan perniagaan bagi meneruskan kelangsungan, mengekalkan kelebihan daya saing dan meningkatkan prestasi perniagaan mereka. Penggunaan teknologi digital dapat mempercepatkan proses kerja (Al-Alawi & Al-Bassam 2019; Okkonen, Vuori & Palvalin 2019) dan meningkatkan produktiviti organisasi (Rahi, Ghani & Ngah 2020). Akan tetapi, kegagalan organisasi dalam menerapkan digitalisasi boleh menyebabkan organisasi terpaksa berundur dari pasaran (Rubaneswaran 2017). Transformasi dari penggunaan analog kepada digital telah memberi cabaran kepada organisasi untuk menggerakkan proses digitalisasi. Organisasi perlu mengubah visi, misi, menyediakan infrastruktur teknologi terkini, dan membangunkan pelbagai strategi dalam mendepani cabaran untuk merealisasikan penggunaan teknologi digital (Akter et al. 2016; Buyukoozkan & Gocer 2018). Di samping itu, digitalisasi turut mencipta satu perubahan dari aspek struktur dan corak kerja yang baru (Kotera & Correa-Vione 2020). Kaedah pekerjaan secara tradisional telah berubah kepada kaedah yang lebih sofistikated dan berteknologi tinggi (Palazzeschi, Bucci & Di Fabio 2018).

Justeru, transformasi digital bukan sahaja memberi cabaran kepada organisasi, tetapi turut memberi impak kepada setiap pekerja (Kane 2019). Namun, sebahagian besar kajian lepas mengenai transformasi digital lebih tertumpu kepada kelancaran urusan berkaitan dengan pihak berkepentingan luaran, terutama hubungan mereka dengan pelanggan dan mengabaikan peranan pekerja dalam proses ini (Murawski & Bick 2017; Nadeem, Gan & Nguyen 2017). Akan tetapi, transformasi digital memerlukan pekerja untuk mengadaptasi perubahan persekitaran kerja yang baru dengan mempelajari kemahiran digital dan kemahiran berfikir secara kritis dalam melaksanakan kerja mereka (Okkonen et al. 2019; Sony & Naik 2020). Kegagalan untuk mengadaptasi perubahan mampu memberi kesan kepada produktiviti serta merencatkan kelangsungan organisasi (Attaran, Attaran & Kirkland 2019). Oleh itu, organisasi bukan sahaja perlu melengkapkan pekerja mereka dengan kemahiran digital (Kane et al. 2019), tetapi memerlukan pekerja yang berkeupayaan untuk mengadaptasi perubahan struktur kerja yang baru (Tho

et.al. 2018; Sony & Naik 2020). Kecemerlangan pekerja dalam mengadaptasi penggunaan teknologi digital dalam urusan perniagaan boleh diukur dengan prestasi adaptif (Park & Park 2019).

Prestasi adaptif dilihat sebagai bentuk tingkah laku yang berada dibawah kawalan pekerja itu sendiri (Van den Heuvel et al. 2020). Oleh itu, keupayaan pekerja untuk mengadaptasi perubahan dalam corak pekerjaan yang berteknologi tinggi memerlukan kesediaan dan kesanggupan pekerja yang luwes (Kane et al. 2019). Kesediaan teknologi pekerja ialah kecenderungan mereka untuk menerima dan menggunakan teknologi baru bagi mencapai matlamat yang berkaitan dengan kehidupan dan pekerjaan (Parasuraman 2000). Konsep kesediaan teknologi berasal dan banyak dikaji dalam bidang pemasaran (Parasuraman 2000; Tsikriktsis 2004). Namun, sejak kebelakangan ini ia telah mula diterapkan dalam kalangan pekerja di organisasi dan kajian mengenainya sedang aktif dijalankan (Dai, Shie & Liu 2020; Sun et al. 2020; Victoria et al. 2020). Namun, hasil kajian lepas menunjukkan kesan kesediaan teknologi terhadap output yang positif adalah pelbagai (Nor Hayati et al. 2020; Stock & Gross 2016; Victoria et al 2020).

Kecenderungan pekerja dalam mengadaptasi persekitaran kerja baru adalah berbeza-beza mengikut personaliti yang dimiliki (Park & Park 2019) Oleh itu, kajian ini berminat untuk menguji personaliti proaktif sebagai pemboleh ubah penyederhana yang menentukan kekuatan hubungan antara kesediaan teknologi dan prestasi adaptif pekerja. Pekerja yang memiliki personaliti proaktif adalah sangat aktif dan bermotivasi untuk mendapatkan maklumat baru, mempelajari dan mengemas kini pengetahuan serta kemahiran mereka, mengenal pasti proses kerja baru dan mewujudkan persekitaran kerja yang produktif (Kammeyer-Mueller & Wanberg 2003; Kim, Hon & Crant 2009). Oleh kerana pekerja yang proaktif sentiasa kehadapan dan optimis dalam membentuk persekitaran yang lebih sesuai dengan keperluan semasa, mereka berpotensi untuk mengadaptasi struktur kerja yang baru dan bersedia meningkatkan kemahiran dalam penggunaan teknologi digital bagi memastikan organisasi dapat mendepani cabaran transformasi digital dengan efisien.

Berdasarkan penyataan masalah di atas dan jurang kajian yang ada, kajian ini mengandaikan kesediaan teknologi mampu menyumbang kepada peningkatan prestasi adaptif dalam mendepani transformasi digital dan perubahan persekitaran perniagaan. Tahap kesediaan teknologi pekerja juga berkemungkinan berbeza-beza mengikut personaliti yang mereka miliki. Oleh itu, tujuan kajian ini adalah untuk menguji sejauh mana kesediaan teknologi pekerja mempengaruhi prestasi adaptif dan peranan personaliti proaktif sebagai penyederhana hubungan antara kesediaan teknologi dan prestasi adaptif.

ULASAN LITERATUR

Prestasi Adaptif

Adaptabiliti bukanlah satu konsep yang baru. Namun, dengan perubahan persekitaran yang berterusan telah menjadikan adaptabiliti sebagai topik yang sentiasa mendapat perhatian daripada penyelidik serta pengamal industri dalam memahami dan meningkatkan prestasi adaptif pekerja (Pulakos et al. 2000). Pulakos et al. (2000) adalah antara penyelidik terawal yang membincangkan beberapa dimensi dalam adapatabiliti yang dilalui oleh pekerja bagi mendepani pelbagai perubahan di tempat kerja. Dimensi adaptabiliti yang dibincangkan merangkumi keupayaan untuk mengawal situasi kecemasan ketika krisis; tekanan kerja; penyelesaian masalah secara kreatif; berurusan dengan situasi kerja yang tidak menentu dan sukar diramalkan; pembelajaran berkaitan prosedur, tugasan dan teknologi berkaitan kerja; demostrasi penyesuaian interpersonal; demostrasi penyesuaian budaya; dan demostrasi penyesuaian berorientasikan fizikal (Pulakos et. al 2000).

Di samping itu, Park & Park (2019) melihat adaptabiliti sebagai keupayaan pekerja untuk mengadaptasi perubahan dan diukur dengan prestasi adaptif. Prestasi adaptif merujuk kepada tahap kebolehan pekerja untuk menyesuaikan diri dengan persekitaran yang berubah-ubah dalam meningkatkan prestasi kerja mereka (Kim 2020; Park & Park 2019). Pekerja yang memiliki kebolehan adaptif mampu untuk menyelesaikan masalah secara kreatif, menguruskan situasi yang tidak menentu, mempelajari sesuatu dengan cepat, menunjukkan budaya adaptabiliti dan mampu menangani tekanan serta mampu menguruskan krisis (Park & Park 2019). Justeru, adalah sangat penting untuk memahami bagaimana prestasi adaptif pekerja dapat ditambahbaik terutamanya dalam mempelajari teknologi baru yang berkaitan dengan stuktur kerja berlandaskan digitalisasi (Park & Park 2019).

Perubahan persekitaran kerja yang seiring dengan perubahan teknologi telah mencetuskan konsep adaptabiliti teknologi dalam kalangan pekerja (Okkonen et al. 2019). Pekerja perlu menyesuaikan diri dengan aplikasi teknologi baharu yang diperkenalkan, bersedia untuk belajar dan meningkatkan kemahiran teknologi dan menghadapi sebarang cabaran dalam melaksanakan tugas dalam struktur kerja yang baru (Kim 2020; Park & Park 2019). Sebaliknya jika pekerja tidak dapat mengadaptasikan diri

dengan keperluan struktur kerja ini, mereka akan menghadapi saat yang sukar untuk terus bekerja dan ianya boleh memberi kesan terhadap keberadaan mereka dalam organisasi (Victoria et al. 2020). Pekerja yang mampu mengadaptasikan diri dengan kemahiran dan struktur kerja yang baru bukan sahaja berupaya meningkatkan prestasi adaptif mereka tetapi menjamin kejayaan organisasi secara menyeluruh (Kenny 2019; Park & Park 2019; Tho et al. 2018).

Kesediaan Teknologi

Bagi merealisasikan transformasi digital, organisasi telah membuat pelaburan modal yang besar bagi meningkatkan kemudahan infrastruktur teknologi (Oesterreich & Teuteberg 2016) dan menyediakan latihan serta bimbingan kemahiran teknikal yang bersesuaian kepada pekerja (Bonekamp & Sure 2015). Selain itu, organisasi juga telah mengambil langkah kesiapsiagaan dalam mengkomunikasikan perubahan teknologi kepada pekerja supaya mereka mempunyai kesedaran dan kesediaan bagi menghadapi transformasi digital (Hushalictmy & Umi Kalsom Kassim 2019; Vrchota et al. 2020;). Namun begitu, kesediaan menghadapi tranformasi digital bukan sahaja menjadi tanggungjawab organisasi, ia harus menjadi tanggungjawab pekerja untuk bersedia dan mempunyai kecenderungan menggunakan teknologi (Alyoubi & Yamin 2019; Lokuge et al. 2019) serta mampu mengadaptasi struktur kerja baru berlandaskan digitalisasi (Kotera & Correa-Vione 2020).

Kesediaan teknologi boleh dilihat sebagai gambaran keseluruhan minda yang dihasilkan daripada isyarat mental yang menentukan kecenderungan tingkah laku inidividu untuk menggunakan teknologi baru dalam kehidupan dan pekerjaan (Lin, Shih & Sher, 2007; Parasuraman 2000). Kesediaan teknologi merangkumi empat dimensi iaitu yang memotivasikan individu untuk menerima kehadiran teknologi dan yang menghalang penggunaan teknologi. Dimensi yang memberi motivasi adalah individu mempunyai sikap optimistik dan merasa lebih inovatif dengan kehadiran teknologi. Manakala, yang menghalang adalah apabila individu kurang berasa selesa dan tidak selamat dengan penggunaan teknologi. Kesediaan teknologi sering diuji untuk memahami tahap kesediaan pekerja terhadap penggunaan teknologi (Parasuraman 2000). Pekerja yang optimis akan berusaha untuk mengadaptasi teknologi untuk meningkatkan pengetahuan dan kemahiran mereka tentang teknologi baru (Alyoubi & Yamin 2019).

Kajian lepas mendapati pekerja yang mempunyai persepsi yang positif terhadap penggunaan teknologi mudah untuk mengadaptasi kemahiran tenikal yang baru (Aldunate & Nussbaum, 2018). Oleh itu, kesediaan teknologi dapat menyuntik motivasi pekerja untuk menerima teknologi dan mendorong tingkah laku untuk menggunakan teknologi baru (Lokuge et al. 2019) yang akan memberi kesan yang positif kepada prestasi kerja mereka (Alyoubi & Yamin 2019; Lokuge et al. 2019; Nor Hayati et al. 2020). Motivasi pekerja, sikap dan pemberdayaan positif adalah faktor teras yang mempengaruhi niat pekerja untuk menggunakan teknologi bagi mengadaptasi struktur kerja baru (Van den Heuvel et al. 2020). Secara empirikal juga telah terbukti bahawa penggunaan teknologi baharu dapat meningkatkan kecekapan kerja pekerja (Okkonen, et al. 2019) dan berpotensi untuk meningkatkan prestasi adaptif pekerja.

Hubungan kesediaan teknologi dan prestasi adaptif dalam kajian ini akan didasari oleh Teori Sumber Pemuliharaan (COR). Teori Sumber Pemuliharaan telah dibangunkan oleh Hobfoll (1989) untuk menjelaskan keadaan di mana individu berusaha untuk memperoleh, mengekalkan dan melindungi sumber yang mereka hargai, dan ketegangan berlaku apabila sumber itu hilang, terancam dengan kerugian atau individu tersebut gagal menambah sumber yang sedia ada selepas melakukan pelaburan yang besar. Sumber yang dimaksudkan dalam teori ini adalah objek (contoh: pekerjaan), keadaan (contoh: mood yang positif), ciri peribadi (contoh: mempunyai sifat terbuka) dan tenaga. Kehilangan pekerjaan mungkin berlaku apabila pekerja tidak bersedia menggunakan teknologi dalam mendepani perubahan struktur kerja yang baru. Ketidaksediaan teknologi menyukarkan pekerja untuk mengadaptasi kemahiran kerja yang baharu dan menghadapi masa yang sukar untuk terus bekerja yang memberi tekanan kepada kehilangan kerja (Daramola & Adejume 2013; Van den Heuval, et al. 2020).

Oleh itu berdasarkan dua dimensi kesediaan teknologi iaitu yang memotivasi dan yang menghalang kecenderungan pekerja untuk menggunakan teknologi terkini, ulasan kajian lepas mengenai prestasi adaptif dan Teori Sumber Pemuliharaan, kajian ini mencadangkan kajian empirikal dijalankan untuk menguji:

Cadangan 1: Dimensi motivasi dalam kesediaan teknologi mampu mendorong pekerja mengadaptasi teknologi dalam persekitaran kerja digitalisasi dan meningkatkan prestasi adaptif.

Cadangan 2: Dimensi halangan dalam kesediaan teknologi merencatkan pekerja daripada mengadaptasi teknologi dalam persekitaran kerja digitalisasi dan mengurangkan prestasi adaptif.

Personaliti Proaktif

Dalam organisasi, pekerja yang berkeperibadian proaktif merupakan aset yang bernilai kerana dapat membentuk diri yang berkualiti (Li, Jin & Chen 2018), bersedia menghadapi cabaran (Alikaj, Ning & Wu 2020; Li, et al. 2018) dan menyumbang kepada kejayaan organisasi (Grant & Ashford 2008). Personaliti proaktif digambarkan sebagai keperibadian individu yang memiliki kecenderungan sikap dan tingkah laku yang mampu untuk mengenal pasti dan mengatasi tekanan serta perubahan persekitaran dengan berkesan (Bateman & Crant, 1993). Pekerja yang memiliki keperibadian ini akan mengambil inisiatif untuk berubah bagi mencapai matlamat kerjaya dan berusaha mempelajari cara yang lebih baik untuk melakukan sesuatu pekerjaan serta aktif membuat penambahbaikan (Bateman & Crant, 1993; Parker, Bindl & Strauss 2010). Persekitaran kerja yang tidak menentu memerlukan pekerja untuk sentiasa mengemas kini kemahiran dan pengetahuan mereka serta bersikap lebih fleksibel supaya berupaya untuk mengadaptasi perubahan persekitaran kerja (Cerit 2017; Fu, Ye & Xu 2020) yang menjuruskan kepada hasil yang positif kepada individu dan organisasi (Grant & Ashford 2008).

Justeru, ciri yang dimiliki pekerja yang berpersonaliti proaktif mampu meningkatkan prestasi adaptif dan membuat persiapan awal dalam mengharungi perubahan teknologi dalam organisasi (Parker, et al. 2010). Dengan itu, proses kerja baru dapat direalisasikan dengan berkesan kerana mereka mudah mengadaptasi perubahan persekitaran serta kaedah pelaksanaan kerja yang sering berubah mengikut peredaran masa (Kuo et al. 2019). Secara konsisten, kajian lepas juga telah membuktikan bahawa personaliti proaktif sering dikaitkan dengan output yang positif di tempat kerja dan pekerja mempunyai keupayaan mengadaptasi persekitaran yang berubah demi kerjaya mereka (Jiang, 2017). Mereka mempunyai pandangan yang jauh dan tahu untuk menjangka risiko yang akan dihadapi jika gagal untuk mengadaptasi persekiran kerja yang baru (Bakker, Tims & Derks 2012; McCormick et al. 2019).

Dalam konteks kesediaan teknologi pula, pekerja yang memiliki personaliti proaktif adalah individu yang optimis. Mereka mempunyai motivasi intrinsik untuk menerima teknologi baru, mudah menerima perubahan dan sukakan cabaran untuk belajar sesuatu yang baru bagi mengembangkan ilmu berasaskan teknologi (Parker et al. 2010; Zhu, He & Wang 2017). Dapatan kajian Spitzmuller et al. (2015) mendapati pelajar yang mempunyai personaliti proaktif mampu menggunakan mod digital dalam pengajian dengan mewujudkan komuniti pembelajaran dalam talian. Walaupun kajian tersebut dari perspektif yang berbeza, namun ianya terbukti secara empirikal bahawa individu yang memiliki personaliti proaktif adalah lebih mudah menerima dan menggunakan teknologi baru. Berdasarkan dapatan kajian lepas yang telah membuktikan secara empirikal ciri-ciri positif individu yang memiliki personaliti proaktif, kajian ini mencadangan pengujian ke atas:

Cadangan 3:   Sejauh mana pekerja yang memiliki personaliti proaktif dapat mengadaptasi persekitaran kerja digitalisasi yang mendorong kepada peningkatan prestasi adaptif.

Cadangan 4:   Sejauh mana personaliti proaktif berperanan sebagai penyederhana yang menguatkan atau melemahkan hubungan antara kesediaan teknologi dan prestasi adaptif.

KESIMPULAN

Keupayaan pekerja untuk mengadaptasi perubahan merupakan isu penting yang dikaji dalam kajian ini selari dengan cabaran organisasi dalam mendepani perubahan persekitaran ke arah digitalisasi. Kajian ini mencadangkan kesediaan teknologi sebagai pendorong utama kepada prestasi adaptif dalam konteks persekitaran kerja digitalisasi. Kesediaan teknologi dilihat dari sudut kecenderungan tingkah laku pekerja dalam menggunakan teknologi dalam urusan kerja mereka. Kajian ini mengkonseptualisasikan kesediaan teknologi pekerja kepada konstruk dua dimensi iaitu sebagai motivasi (optimistik dan inovatif) dan sebagai penghalang (tidak selamat dan tidak selesa). Selain itu, kajian ini turut menguji personaliti proaktif sebagai pemboleh ubah penyederhana dalam mengukuhkan lagi hubungan antara kesediaan teknologi dengan prestasi adaptif.

Teori Sumber Pemuliharaan (Hobfall 1989) dan bukti empirikal dari beberapa kajian lepas yang lama dan terkini (contoh: Alikaj, Ning & Wu 2020; Bateman & Crant 1993: Blunt & Wang 2020; Kim 2020; Parasuraman & Colby 2001; Park & Park 2019; Pulakos et al. 2000;) dirujuk dalam mendasari kerangka konsep kajian ini. Sebanyak empat (4) cadangan kajian telah dibangunkan untuk diuji secara empirikal. Kajian ini menjangkakan hubungan yang positif antara dimensi motivasi dalam kesediaan teknologi dengan prestasi adaptif pekerja, manakala hubungan yang negatif antara dimensi halangan dalam kesediaan teknologi. Di samping itu, pekerja yang memiliki personaliti proaktif juga mampu meningkatkan prestasi adaptif mereka dalam mendepani persekitaraan kerja digitalisasi dan menguatkan

hubungan antara kesediaan teknologi dan prestasi adaptif pekerja apabila personaliti proaktif diuji sebagai pemboleh ubah penyederhana.

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Two-way Communication in Pay System and Job Satisfaction: Mediating Effect of Fairness Perceptions

Azman Ismail
Nur Sa'adah Muhamad
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Nurshahira Ibrahim
Academy of Contemporary Islamic Studies
Universiti Teknologi MARA Pahang (Kampus Jengka), Malaysia

Ridwan Abd Razak
UKM-Graduate School of Business,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Two-way communication in a pay system's governance may help an organization to enhance its competitive advantage and realise its strategic business vision and mission in the era of globalization. Thus, this study seeks to examine two-way communication in pay system and its relationship with job satisfaction and fairness perceptions and at Malaysian public universities in Peninsular Malaysia. In this study, SmartPLS was utilized to assess the study's hypotheses and test the psychometric of the instrument. The results demonstrate that the implementation of two-way communication in pay system strongly invoke employees' feelings of procedural and distributive fairness. Consequently, these fairness perceptions result in improved job satisfaction. This research highlights the importance of fairness perceptions by applying them as mediators in the relationship between two-way communication in pay system and job satisfaction. Practically, this study may help administrators to understand the complexity of pay system's governance in general, and particularly on considering two-way communication in pay system in formulating fairness-based procedures and policy. Some limitations on the conceptual and methodological aspect of this study are also discussed.

Keywords: Two-way communication, pay system, fairness perceptions, job satisfaction, SmartPLS

INTRODUCTION

Pay system is a crucial corporate governance issue and must be carefully considered in formulating the personnel management policy for an organization, as it may affect the organization's capability of an to achieve its strategic and tactical objectives. In an employment contract, pay system, which refers to any kind of workplace compensation or reward, is typically described in two major forms, namely pay for job and pay for performance. The first instance denotes the pay structures determined based on employees' seniority, service period and/or job classifications, whereas the latter of the variable pays that are provided besides a fixed-basic salary scale based on employees' merit, knowledge, skills, productivity and/or competency) (Mohd Ridwan & Azman, 2018; Muhammad Idrus, 2018). These pay types are equally important and they complement each other to attract, retain and inspire employees towards achieving the prime objectives of workplace reward, namely: 1) competency (i.e., enhancing quality, performance, expanding customers base and labour costs); 2) equity (i.e., fair distribution of salary for every employee based on their contributions and performance); and 3) conforming with policies, regulations and ethics. The achievement of these objectives is imperative as it may contribute toward supporting and upholding the objectives and strategy of the organization (Muhammad Idrus, 2018; Newman, Gerhart & Milkovich, 2019)Extensive studies on workplace compensation within the past three decades have highlighted that regardless of how well a pay system is being planned, its objectives cannot be achieved if administrators fail to effectively communicate it to the employees (Azman, Nik Malini, Norazila, Mohd Helmi & Nur Alia, 2018; Day, 2011). Effective pay communication can be done using a two-way communication, that is, administrators deliver pay information to employees (e.g., explaining pay content and methods of determining pays), and employees deliver pay information to administrators (e.g., employees sharing pay content, decision making power, ask questions and give feedback about pay system) (Azman & Mohd Ridwan, 2017; Laundon, Cathcart & McDonald, 2019; Wenzel, Krause &

Vogel, 2017). When done appropriately, such communication will help employees to better understand the overall reward management, processes, policies, procedures and value of pay packages quantitatively and qualitatively, as well as to reduce misconceptions and prejudices about the relationship of pay and performance. Consequently, this situation may enhance employees' fairness perceptions, particularly procedural fairness and distributive fairness, within the systems (Azman, Azizul Hakim, Ahmad Zaidi & Wong, 2011; Azman and Mohd Ridwan, 2017; Chan & Lai, 2017; Wenzel et al., 2017; Tanius, Pheng, Kasim & Yulia, 2017).

From a strategic human resource management standpoint, two-way communication in pay system has been widely advocated by agile organizations. A thorough investigation of workplace compensation literature from the past few decades revealed that two-way communication in pay system and fairness perceptions can result in better employees' satisfaction (see for example, Esse & Aunemo, 2017; Marasi, Wall & Bennett, 2018). Studies have indicated that although workplace compensation model of two-way communication in pay system, fairness perceptions and job satisfaction are different, there are conceptually intertwined. As an example, implementation of two-way communication between administrators and employees through different media, like face-to-face interaction, printed instructions and electronic devices in managing the pay system will strongly raise employees' perceptions of procedural and distributive fairness. Consequently, both fairness perceptions can result in better job satisfaction (Azman, Ernisa, Ong & Tan, 2008; Janssen, 2001). Even though such relationships have been widely examined, researchers have only recently begin reviewing the role of fairness perceptions as a crucial mediating variable in the workplace compensation studies (Mohd Ridwan & Azman, 2018; Wenzel et al., 2017). Therefore, more studies in this field are pertinent.

The present study is also imperative due to several reasons. First, past studies mainly emphasize on describing indicators of fairness perceptions. This includes debates on types, definitions, and significance of procedural and distributive fairness in private and public organizations (Azman, Nur Asilah & Mohamad Rahmad, 2016; Mohd Ridwan, Azman & Enah, 2018). Second, a plethora of studies merely employ simple correlation analysis methods to evaluate the direct effects models, such as, correlation between particular pay system components and specific aspects of fairness perceptions (Laundon et al., 2019; Marasi & Bennett, 2016); and correlation between different types of fairness perceptions and particular work attitude components (e.g., commitment, satisfaction, performance and turnover) (Cohen-Charash & Spector, 2001; Greenberg & Cropanzano, 1993; Muzammil & Mohammad, 2019). Further, these models were measured using simple statistical tools (i.e., descriptive statistics, dispersion tests and bivariate statistics), thus, the results of these tests have only examined the relevant correlations and the strength of relationships among the variables. Arguably, the effect size and nature of different fairness type as mediating variables have been largely neglected in workplace compensation research literature (Azman & Anis, 2016; Mohd Ridwan & Azman, 2018). As a result, past research, which delivers broad and general recommendations, may not offer much help to practitioners to fully understand the complex concepts of procedural and distributive fairness. In turn, such limitation may impend managers to draft proper guidelines for the purpose of maintaining and achieving the strategic objectives of dynamic organizations in times of global competition and economic uncertainty (Raja, Sheikh, Abbas & Bouckenooghe, 2018; Somensi, Ensslin, Dutra, Ensslin, Maeau Ripoli-Feliu & Dezem, 2017). This research thus aims to fulfill these gaps.

The focus of this study is to assess two-way communication in the pay system of Malaysian public universities. These universities have adopted the pay system designed and commissioned by the the Public Service Department, a central agency of Malaysian federal government for public services. To enhance the credibility of the pay system, on top of the regulatory framework, administrators in public universities in Malaysia have been given the discretionary power to practice a two-way communication in delivering pay information (e.g. objectives, entitlements, rules for determining entitlements and procedures for distributing entitlements) through various media, such as face to face interaction, as well as printed and electronic devices to academic and administration staff at central administration departments (e.g., chancellery, bursary, registrar and facility management office) and responsibility centers (e.g., faculties, research institutes and academic supporting departments). This communication practice is very useful to enhance the understanding of the staff about the governance of their pay system, as well as decrease their misjudgments and prejudices about how the type, level and/or amount of pays are determined and distributed for different job groups in the universities (Azman & Mohd Noor, 2008; Hasan Al-Banna, Ab. Mumin & Siti Arni, 2014).

Numerous studies have been dedicated on two-way communication in pay system and its direct impact on work related attitudes (Azman & Mohd Noor, 2008; Hasan Al-Banna et al., 2014). Yet, the role of procedural and distributive fairness as important mediating variables between two-way communication in job satisfaction and pay system are still inadequately discussed, particularly within the context of Malaysian public universities. Thus, to advance the academic field, the study is conducted to

measure the mediating effect of fairness perceptions, namely procedural fairness and distributive fairness, in the relationship between two-way communication in pay system and job satisfaction. The specific objectives for the research are: 1) To examine the relationship between two-way communication in pay system and fairness perceptions, 2) To examine the relationship between two-way communication in pay system, procedural fairness and job satisfaction, and 3) To examine the relationship between two-way communication in pay system, distributive fairness and job satisfaction.

LITERATURE REVIEW

Two-Way Communication in Pay System

When explaining the Mathematical Theory of Communication, Shannon and Weaver (1963) defined two-way communication in the context where a sender transmits a message to the receiver, and once the receiver understands the message, he/she will provide the feedback to the sender. From the perspective of organizational behaviour, two-way communication between senders and receivers is explained by Graen and Uhl-Bien's (1995) Leader-Member Exchange Theory, which posits that two-way communication between leaders and members (e.g., ingroup and/or outgroup) will decrease divergent opinions while increase the convergent ones. In other words, when both parties feel comfortable with a communication, such situation may strongly increase organizational members' positive perceptions that their leaders are caring or attentive about them. Thus, this situation may result in positive behaviours from the members.

Later, the usefulness of two-way communication has been applied in workplace pay systems. In the governance and management of pay systems in organizations, two-way communication specifically refers to the dyadic communication from administrators to employees and vice versa. In particular, the communication from administrators to employees is generally defined as the willingness of the administrators to openly, accurately and honestly deliver the content of pay systems, as well as the methods of determining pays to employees who serve in different job groups (Wenzel et al., 2017; Marasi & Bennett, 2016). Conversely, the communication from employees to administrators is broadly defined as employees in all job groups are given the opportunity to ask questions, provide comments and suggestions, as well as to share the power of making pay decisions in organizations (Smit & Montag Smit, 2019; Day, 2007).

The two-way communication systems are often implemented through face-to-face interaction, as well as through printed and electronic media. The myriad of channels and the preference of non-technical jargons when communicating are meant to facilitate the ongoing, open dialog and warm conversation between the management and the employees. Consequently, this approach helps in enhancing the understanding of the employees relating to the fundamentals of the pay systems and appreciate the pay values offered by their organizations (Colella, Paetzold, Zardkoohi & Wesson, 2007; Sim, 2001; Marasi & Bennett, 2016). As a result, this situation may help employees to establish realistic expectations and understand how pay decisions are made, as well as to decrease rumours and inaccurate perceptions of others' pay; thus avoiding any misinterpretation of the process of the pay system in general. In addition, such open communications also helps employees to understand what their pays means to the organization and recognize the opportunities and actions can be done to get better pays (Case, 2001; Day, 2007; Lytle, 2014). Further, extant studies about workplace pay system acknowledge two-way communication in pay system as a significant antecedent of fairness perceptions, namely procedural fairness and distributive fairness (Chan & Lai, 2017; Smit & Montag-Smit, 2019).

Procedural Fairness

Procedural fairness is an essential component of organizational justice, which is generally interpreted as employees' perceived justice about the means, process, systems, methods, rules and/or regulations employed to determine outcomes such as resources and/or rewards (Cloutier & Vilhuber, 2008; Lambert, Keena, Leone, May & Haynes, 2019). The key principles of procedural fairness are usually described in the context of the three justice theories, namely, the Process Control Theory by Thibaut and Walker (1975), Self-Interest Model by Leventhal (1976; 1980) and Model of Procedural Justice by Shapiro (1993). As an example, Thibaut and Walker's (1975) Process Control Theory suggested that procedural fairness is a result of control process, that is process control employees' voices (e.g., guidelines that allow employees to express their opinions) and process control employees' outcomes (e.g., amount of those in a high authority monitors the outcome of procedure). In term of procedural fairness, Leventhal's (1980) Self-Interest Model expresses that procedural fairness involves six major rules that are consistency (e.g.,

standardized rules used for all employees), bias-suppression (e.g., give an equal treatment for all staff), accuracy (e.g., use an accurate information in making decisions), correctability (e.g., ready to correct bad decisions or bad outcomes), representativeness (e.g., consult employee opinions) and ethicality (e.g., comply with ethical and morality standards in making pay allocations).

Meanwhile, the Model of Procedural Justice by Shapiro (1993) posits that voice opportunity is an important channel to enhance instrumental process (e.g., employees suggest corrective actions in decision making process) and non- instrumental process (e.g., employees take opportunity to provide views to their administrators). If this process is properly done this can result to a better essence of perceptions of procedural fairness. Further studies about organizational justice prove that fairness in the procedure of distributing pays to employees is often evaluated as an essential result of two-way communication in pay system (Azman & Adanan, 2005; Robbins, Summers, Miller & Hendrix, 2000) and it also provide as a crucial mediating variable between two-way communication in pay system and job satisfaction (Azman et al., 2011; Kwon, Kim, Kang and Kim (2008).

Distributive Fairness

Distributive fairness in pay system is normally viewed as employees' perceived justice about the results (e.g., resources and/or rewards) they obtained from their employers (Lambert et al., 2019; Ohana & Meyer, 2016). The important components of distributive fairness are clearly highlighted by Adams' (1963) Equity Theory, which described that perceived outcomes justice is a critical outcome of the comparison between the ratios of employees' output (e.g., resources and/or rewards) and input (e.g., effort) to that referent others (e.g., past earnings and/or colleagues). For example, an employee who feels that his/her salary commensurate with his/her contribution, may have a better perception of distributive fairness (Jawahar & Stone, 2011; Williams, McDaniel & Ford, 2007). Hence, many studies about workplace justice advocate that perceived fairness in receiving pays based on job and/or performance is normally judged as an important result of two-way communication in pay system (Chan & Lai, 2017; Day, 2011) and it also acts as an essential mediating variable between two-way communication in pay system and job satisfaction (Azman et al., 2008; Janssen, 2001).

Job Satisfaction

It is broadly understood that job satisfaction is affected by positive evaluations on employee's job features or job experience (Locke, 1976; Tam & Zeng, 2014). The important components of job satisfaction have been discussed by Two Factor Theory of Herzberg, Mausner and Snyderman (1959), which posits that it consists of two crucial features, namely, extrinsic and intrinsic job conditions. For example, intrinsic job condition is related to as a sense of achievement, recognition, promotional and growth opportunities, and responsibility and finding meaning towards work. Conversely, extrinsic job condition typically refers to the administrative policies, fringe benefits, job security, pay, status, physical working conditions, and interpersonal relations within an organization. If employees have positive perceptions about job conditions, their perception may enhance the idea of organizational job satisfaction (Azman & Mohd Ridwan, 2016; Yousef, 2017). Further, numerous studies about work related attitudes recognize that job satisfaction is often viewed as a pertinent consequence of the relationship between two-way communication in pay system and fairness perceptions (i.e., distributive and procedural fairness) (Azman et al., 2008; Paré & Tremblay, 2007).

Many prominent studies have highlighted that two-way communication in pay system is often practiced through organization and interpersonal treatments. This communication practice can act as a critical antecedent of fairness perceptions in various organizational settings. For example, Azman and Adanan (2005), who surveyed 334 employees at seven major private universities in Malaysia, found that broad and specific pay systems were communicated via the institutions' interpersonal treatment and pay policy (e.g., good rapport, respect, ask questions and share experience) thus enhancing employees' perceptions of the institutions' procedural fairness.

In another study, Robbins et al. (2000), who tested the Lind and Tyler's (1988) Group-Value Model at a textile company located in the South-eastern part of the United States of America, found that interpersonal treatment (e.g., listening actively, consulting others' opinions and being interpersonally attentive) by those in a position of authority was very useful to clearly explain how the outcomes (e.g., rewards) were given to employees in various levels and structures. As a result, this communication could lead to a higher employees' perceptions of organizational procedural fairness. Further, the study by Gopinath and Becker (2000) found that openness in communicating pay information between administrators and employees had been an important determinant of perceptions of procedural fairness.

The finding was based on the data collected from focus groups (Time 1) and 318 usable surveys (Time 2) at a large and established chemical company in the US. Thus, the following hypothesis is established:

H1: There is a positive relationship between two-way communication in pay system and procedural fairness.

Numerous studies have recognized the effect of two-way communication in pay system on distributive fairness in different organizational samples. For example, in a study of 384 staff in a public university in the USA, Day (2011) demonstrated how administrators distribute the information on how job grades were created, how pay structures were established, and how salary increases were determined. This information was used by the employees to make a comparison with internal referent (e.g., colleagues) and external referent (e.g., employees with similar positions in different organizations in the same industry). When employees felt that they had received rewards as same as their contributions, this situation could lead to a higher perception of distributive fairness in the university. Similarly, Chan and Lai (2017), who surveyed 294 employees at major organizations in Macau have found that the ability of administrators to clearly and accurately deliver pay information (e.g., provide timely pay policy changes, and transparency in implementing reward policies) had increased the employees' perceptions of organizational distributive fairness. Therefore, the following hypothesis is formulated:

H2: There is a positive relationship between two-way communication in pay system and distributive fairness.

Although somewhat limited, there have been some evidence from past studies that demonstrated the effect of procedural fairness on the relationship between two-way communication in pay system and job satisfaction. For instance, Kwon et al. (2008) who examined gainsharing under seniority pay systems based on a sample of 579 employees at ten Korean firms found that the implementation of information exchange and sharing about how pays were decided in suggestion committees had triggered employees' perceptions of procedural fairness. Consequently, this fairness perception resulted in greater organizational job satisfaction. Further, Azman et al. (2011) had examined the pay for performance using employees at a US manufacturing firm operating in East Malaysia Silicon Valley. Their research indicated that the readiness of administrators to allow employees to voice out their opinions in pay decisions making (e.g., open discussion, opportunity to bargain about pay rates and levels and provide better explanations) had triggered employees' perceptions of procedural fairness. Therefore, this fairness may result in enhancing organizational job satisfaction. In line with the above studies, the following hypothesis is formed:

H3: Effect of two-way communication in pay system on job satisfaction is indirectly affected by procedural fairness.

There are also some evidence from extant research involving indirect effect models to support the mediating effect of distributive fairness between two-way communication in pay system and job satisfaction. For example, a study by Janssen (2001), who examined pay distribution using 99 mid-level and low-level management employees at a Dutch organization, showed that when administrators sought employee opinions and feedback in the allocation of pay for performance, they had strongly invoked the employees' perceptions on distributive fairness. Consequently, this perception can result in a better organizational job satisfaction. Further, Azman et al. (2008) who studied pay system based on 190 usable questionnaires at Malaysian public community colleges had indicated that the willingness of administrators to be open in delivering the information relating to pay packages (e.g., paid holiday, health, flexible working hours, work family balance, saving plan and extra benefits and perks) had assisted employees to compare the adequacy of benefit packages that they gained with their job contributions and/or colleagues. If employees perceived fairness about the benefits packages that they gained, this situation may result in a greater organizational job satisfaction. Thus, the following hypothesis is formed:

H4: Effect of two-way communication in pay system on job satisfaction is indirectly affected by distributive fairness.

RESEARCH METHOD

Research Design

Data for this research was collected via cross-sectional survey questionnaires sampled at four Malaysian public research universities, namely three public universities with multidisciplinary research status and one single discipline public university. The names of these universities were not specifically disclosed for privacy reasons. The benefit of this methodology is to help researchers in collecting specific data, reducing bias data and enhancing data quality (Lomand, 2016; Sekaran & Bougie 2016). At the onset of the research, the questionnaire was prepared according to the literature on organizational compensation management. Next, a back-to-back translation technique was utilized to translate the questionnaire into English and Malay languages to enhance the quality of the data collected and subsequently the research findings (Lomand, 2016; Sekaran & Bougie 2016).

Measures

The three major components of the survey are: First, two-way communication (TOWCOM) which was assessed using five items adapted from the compensation management literature (Downs & Hazen, 1977; Diekmann, 2015; Scott, Sperling, McMillan & Bowbin, 2007). Second, fairness perceptions which consist of two major types: procedural fairness (PROFAIR) and distributive fairness (DISFAIR). PROFAIR was measured through four items while DISFAIR through three items adapted from the compensation management and organizational fairness literature (Cropanzano, Bowen & Gilliland, 2007; Al-Zu'bi, 2010). Third, job satisfaction (JOBSAT) was measured using a four-item scale adapted from Warr, Cook and Wall (1979). All the items were evaluated by using a Likert scale of seven items from "Strongly Disagree/Dissatisfied" (1) to "Strongly Agree/Satisfied" (7). Participant characteristics were controlled because this research emphasized on employee attitudes.

Sample

The unit of analysis of this study is the staff or employees at the four universities sampled in this study. A purposive sampling technique was employed to dispense 1000 survey questionnaires to members of the academic and administrative employees who work at the academic and non-academic divisions in the universities. This technique was selected because the full list of employees are confidential and not accessible. From the distributed survey questionnaires, only 580 (58 percent) questionnaires were collected and usable. All participation was ensured to be voluntary by requiring the respondents' consent with assurance of anonymityIn order to prove the sufficiency of sample for this study, the following rule of thumb was adhered: The biggest number of formative indicators in the structural model should be at least 10 times and the items for measurement models should have outer loading higher than the common threshold of 0.70 (Hair, Hult, Ringle & Sarstedt, 2017). In the survey questionnaire, the construct of TOWCOM, with five items, has the biggest number of formative indicators in the hypothesized model. In accordance with this rule, the sample size should be at least 50 respondents. Based on the 10 times rule, the total samples for this study were sufficient and met the abovementioned standards, permitting it to be used in testing the research hypotheses. Further, Harman's single factor test, which was highly recommended by Padsakoff, Mackenzie, Lee and Podsakoff (2003) was utilized to discover the level of response bias in the survey questionnaire data. The result indicated a variance percentage of 39.992, below the 50 percent of the variance (Padsakoff et al., 2003), showing that there was no bias present in the survey data.

Data Anaysis

The SmartPLS was utilized to analyses the data as it is highly recommended by Hair, Hult, Ringle and Sarstedt (2017) because of its ability in producing latent variable scores, manage small sample size, handle less normal data and assess many latent and manifest variables in a conceptual schema. For the data analysis, PLS Algorithm, Bootstrapping, Blindfolding, PLS-Predict and Importance-Performance Map Analysis (IPMA) procedures were used to test the hypothesized model.

Result

Hair et al. (2017) recommends that data screening to be conducted using Statistical Package for Social Sciences (SPSS) to decrease errors and increase the quality of survey questionnaire data. Following this

suggestion, survey questionnaires that have no missing values were used, whereas items that have suspicious answers, outliers and the values of Skewness and Kurtosis bigger than +/-2.0 were removed from the analysis. Only high-quality items in the survey questionnaires were examined using SmartPLS to maintain the accuracy and reliability of research outcomes.

Respondents' Characteristics

Most of the participants in this study were males (52.6%), aged between 31 to 35 years old (22.2%), master's degree holders (22.8%), employees at academic division (65.7%), full administration staff (62.8%), served more than 15 years (27.4%), and received monthly salaries from RM1,001 to RM1,500 (24.1%) as depicted in Table 1.

TABLE 1: Respondents' Characteristics

Respondent	Sub Profile	Percentage (%)
Gender	Male	52.6
	Female	46.4
Age	Less than 25 years old	12.6
	26 – 30 years old	20.3
	31 – 35 years old	22.2
	36 – 40 years old	18.3
	41 – 45 years old	15.3
	More than 46 years old	11.2
Education	LCE / SRP / PMR	7.4
	MCE / SPM	27.8
	HSC / STPM	4.0
	Diploma	14.0
	Bachelor	19.0
	Master	22.8
	PhD	5.2
Division	Academic Division	65.7
	Non-Academic Division	34.3
Position	Full administration staff	62.8
	Academic Staff	37.2
Duration of Service	Less than 2 years	22.9
	3 – 5 years	17.6
	6 – 8 years	15.9
	9 – 11 years	8.4
	12 – 14 years	7.8
	More than 15 years	27.4
Salary (Monthly) (in RM)	Less than 1000	19.8
	1001 – 1500	24.1
	1501 – 2000	15.3
	2001 – 2500	12.1
	2501 – 3000	8.1
	3001 – 3500	6.9
	3501 – 4000	2.6
	4001 – 4500	2.8
	4501 – 5000	1.7
	5001 – 5500	51.2
	5501 – 6000	0.5
	More than 6001	4.8

Note:
LCE/ SRP/ PMR: Lower School Certificate/ Sijil Rendah Pelajaran /Penilaian Menengah Rendah (lower secondary assessment examination)
MCE/ SPM: Malaysia Certificate of Education/ Sijil Pelajaran Malaysia (upper secondary assessment examination)
HSC/ STPM: Higher School Certificate/ Sijil Tinggi Pelajaran Malaysia

Validity and Reliability of Instrument

Table 2 presents the results of convergent validity analysis. All items for the constructs have loadings higher than 0.70 in their own constructs within their models and all the constructs have values of average variance extracted (AVE) higher than 0.50; as recommended by Barclay, Higgins and Thompson (1995) as well as Henseler, Ringle and Sinkovics (2009). This result indicates that the constructs examined met the acceptable standard of convergent validity analysis.

TABLE 2: The Results of Factors Loadings and Average Variance Extracted

Construct	Factor Loadings				AVE
	TOWCOM	PROFAIR	DISFAIR	JOBSAT	
TOWCOM					0.668
My pay system encourages creativity and innovation.	0.808				
My pay system reflects my organisation's goals and strategy.	0.833				
My organisation reward system in my organisation is consistent with best practice.	0.742				
My pay system is paid based on my performance and is consistent with my organisation's cultural values.	0.869				
My organisation's pay system is open and transparent.	0.830				
PROFAIR					0.727
Procedures that allow me to appeal or challenge the salary raise decisions.		0.880			
Procedures that allow me to appeal or challenge promotion decisions.		0.892			
Procedures designed to allow for requests for clarification or additional information about the reward decision.		0.865			
Procedures used to collect accurate information necessary for making reward decisions.		0.768			
DISFAIR					0.635
There is strong link between how well I perform my job and the likelihood of my receiving a raise in salary.			0.795		
The most productive workers in my organisation receive the highest rewards.			0.812		
The same standards was apply to everyone when making pay decisions.			0.784		
JOBSAT					0.655
The recognition you get for good work				0.808	
Industrial relations between management and workers in your organisation.				0.819	
The attention paid to suggestions you make.				0.778	
The way your organisation is managed.				0.830	

The findings for the discriminant validity and composite reliability tests are presented in Table 3. As suggested by Hair et al. (2017) and Henseler et al. (2009), the values of Heterotrait-monotrait (HTMT) ratio of correlation for each research construct were less than 0.90; while the values of confidential interval for each construct in the parenthesis were not more than 1. This result indicates that the constructs have met the standard of discriminant analysis. Further, the values of composite reliability for all constructs were higher than 0.80, indicating that the instrument has high internal consistency (Nunally & Bernstein, 1994).

TABLE 3: Results of Discriminant Validity and Composite Reliability

Construct	HTMT			Composite Reliability
	TOWCOM	PROFAIR	DISFAIR	
TOWCOM				0.909
PROFAIR	0.460			0.914
	(0.392, 0.520)			
DISFAIR	0.507			0.839
	(0.430, 0.576)			
JOBSAT		0.350	0.346	0.883
		(0.262, 0.432)	(0.260, 0.429)	

Note: Values within the parenthesis refer to the values of confidential interval bias at 2.5% and 97.5%

Table 4 presents the findings of descriptive statistics and variance inflation factor. The mean values for the constructs between 4.0000 and 4.9496, showing that most of the participants perceived that the levels of TOWCOM, PROFAIR, DISTFAIR and JOBSAT are from the high level (4) to the highest level (7). Further, the values of variance inflation factor for the relationships: a) between TOWCOM and fairness perceptions (i.e., PROFAIR and DISFAIR) and b) between fairness perceptions (i.e., PROFAIR and DISFAIR) and JOBSAT) were less than 5.0, showing that the collinearity problem is not present in the sample data (Hair et al., 2017).

TABLE 4: The Results of Variance Inflation Factor and Descriptive Statistics Results

Variable	Mean	Standard Deviation	Variance Inflation Factor			
			1	2	3	4
TOWCOM	4.9496	1.25185		1.000	1.000	
PROFAIR	4.0000	1.30205				1.402
DISFAIR	4.6011	1.27534				1.402
JOBSAT	4.6914	1.23729				

RESULTS OF HYPOTHESES 1, 2 AND 3 TESTING

Table 5 presents that the inclusion of TOWCOM in the analysis, which had contributed 21 percent of the variance in PROFAIR and 26 percent of the variance in DISFAIR. The values of R^2 for PROFAIR is higher than 0.15 and lower than 0.26 (Cohen, 1992), indicating that these models have moderate effect. While, the values of R^2 for DISFAIR is equal or more than 0.26 (Cohen, 1992), showing that these models have significant effect. Conversely, the inclusion of TOWCOM, PROFAIR and DISFAIR in the analysis had contributed 37 percent of the variance in JOBSAT. The values of R^2 for JOBSAT is more than 0.26 (Cohen, 1992), showing that this model has significant effect. The findings of testing the research hypotheses showed three significant findings: First, TOWCOM was positively and strongly correlated to PROFAIR (β=0.460; t=13.660). Second, TOWCOM was positively and significantly correlated to DISFAIR (β=0.507; t=14.002). This shows that TOWCOM does act as important determinant of PROFAIR and DISFAIR Third, the relationship between TOWCOM and PROFAIR was significantly correlated to JOBSAT (β=0.350; t=8.498). Finally, relationship between TOWCOM and DISFAIR was significantly correlated with JOBSAT (β=0.346; t=7.447). This finding confirms that a) PROFAIR and DISFAIR are caused by TOWCOM, and b) effect of TOWCOM on JOBSAT is mediated by perceived fairness in pay system (i.e., PROFAIR and DISFAIR). Therefore, all the tested H1, H2, H3 and H4 are supported.

TABLE 5: Testing of Hypotheses

Hypothesis	Standardized Beta (β)	T Statistics	R2	Decision
H1: TOWCOM → PROFAIR	0.460	13.660	0.211	Moderate Effect
H2: TOWCOM → DISFAIR	0.507	14.002	0.260	Substantial Effect
H3: TOWCOM → PROFAIR → JOBSAT	0.350	8.498	0.372	Substantial Effect
H4: TOWCOM → DISFAIR → JOBSAT	0.346	7.447	-	

Note: Significant at t value > 1.96

The type of mediating effect, effect size (f2), model fit, predictive relevance (Q2) and predictive performance (Q2- PLS Predict) were further tested. The type of mediating effect (i.e., PROFAIR and DISFAIR) in the hypothesized model is a partial mediating effect. This result explains that a partial mediating effect occurs when the direct effects model (relationship between fairness perceptions and TOWCOM) and the indirect effects model (relationship between TOWCOM, fairness perceptions and JOBSAT) are significant and point in the same direction (Zhao, Lynch & Chen, 2010).

Second, the results of effect size show that relationship between TOWCOM and PROFAIR is 0.136, which is bigger than 0.02 and smaller than 0.15 (Hair et al., 2017). This result indicates that TOWCOM has a small effect on PROFAIR. The value of relationship between TOWCOM and DISFAIR is 0.257, which is more than 0.15 and smaller than 0.35 (Hair et al., 2017). This result indicates that TOWCOM has a medium effect on PROFAIR. Relationship between PROFAIR and JOBSAT is 0.346, which is more than 0.15 and smaller than 0.35 (Hair et al., 2017). This result indicates that PROFAIR has a medium effect on TOWCOM. Relationship between DISFAIR and JOBSAT is 0.140, which is more than 0.02 and smaller than 0.15 (Hair et al., 2017). This result indicates that PROFAIR has a small effect on JOBSAT. The value of standardized root mean square residual (SRMR) is 0.068, which is less than 0.1 (Hair et al., 2017) or 0.08 (Hu & Bentler, 1998), signifying a good fit model. The outcomes of Blindfolding show that PROFAIR had a Q2 value of 0.136, DISFAIR had a Q2 value of 0.152 and JOBSAT had Q2 value of 0.231, which are higher than zero (Hair et al., 2017). This result shows that these latent exogenous variables have predictive relevance.

Further, PLS-Predict was conducted to predict the model performance. Table 6 shows that the PLS SEM RMSE (root-mean-square error) had five negative values (i.e., PROFAIR2, PROFAIR4, PROFAIR3, JOBSAT1 and JOBSAT4) and the LM RMSE (root-mean-square error) had six negative values (i.e., PROFAIR1, PROFAIR3, DISFAIR1, DISFAIR2, JOBSAT2 and JOBSAT3). This result displays that most indicators in the PLS-SEM analysis yields smaller prediction errors compared to the LM, this indicates that the hypothesized model has medium predictive power.

TABLE 6: PLS-Predict Showing the Results of LM and PLS SEM

Items	LM RMSE Values – PLS SEM RMSE Values	PLS SEM RMSE Values – LM RMSE Values
PROFAIR1	-0.01	0.01
PROFAIR2	0.005	-0.005
PROFAIR3	-0.009	0.009
PROFAIR4	0.009	-0.009
DISFAIR1	-0.027	0.027
DISFAIR2	-0.007	0.007
DISFAIR3	0.012	-0.012
JOBSAT1	0.004	-0.004
JOBSAT2	-0.002	0.002
JOBSAT3	-0.002	0.002
JOBSAT4	0.006	-0.006

Note:
PLS SEM is partial least square structural equation model
LM RMSE is linear model root-mean-square error

The findings of this research show that two-way communication in pay system is an important antecedent of fairness perceptions by proving that the relationship two-way communication in pay system on job satisfaction is mediated by fairness perceptions. In this research, the pay system that was examined

is the pay system carried out by the human resource administrators (HR departments) and designed by the Public Service Department of Malaysia. In enhancing its credibility and management, the HR departments have encouraged a two-way communication between administrators and employees, thereby increasing employees' understanding of the pay system. This communication style, in turn, induces the employees to support the organizations and their stakeholders' needs and expectations. The data demonstrates that the levels of TOWCOM, PROFAIR, DISFAIR and JOBSAT are recorded as high. This finding indicates that high level of two-way communication between administrators and employees in designing and administering pay systems will trigger employees' perceptions of procedural and distributive fairness. Subsequently, these fairness perceptions contribute to a greater job satisfaction.

This research also conducted the importance-performance map analysis (IPMA) generated via SmartPLS (Hair et al., 2017) as exhibited in Table 7.

TABLE 7: IPMA for Job Satisfaction

Construct	Importance	Performance
Two-way Communication	0.332	65.957
Procedural Fairness	0.334	49.972
Distributive Fairness	0.336	60.116

The results of IPMA showed that two-way communication in pay system, as well as procedural fairness and distributive fairness are crucial predecessors of the target construct, namely job satisfaction. As described in Table 7, distributive fairness (0.336) has the highest importance for job satisfaction, while procedural fairness (49.972) has the lowest performance for job satisfaction.

MANAGERIAL IMPLICATIONS

The research findings can be utilized to enhance the design and administration of pay systems, particularly in universities. However, this aim can be achieved if managers or executives' pay more attention to the following issues: First, pay system trainings, be it on the methods and content, need to be conducted and constantly updated for administrators. Training contents should expose current features, distributions and procedures of pay systems, as well as their relationships with organizational and employee goals. Other than that, training methods should use a variety of learning techniques such as lectures, case studies, demonstrations and apprenticeship. Implementation of such training programs will help administrators to increase the understanding of employees about the complexity of pay systems and this may inspire them to properly facilitate and guide junior executives and supervisors in handling employees' demands and expectations about pay systems.

Second, management employees should be encouraged to adopt a supportive leadership style. This leadership style will motivate administrators and supervisors to continuously provide various types of aids, such as emotional aids (e.g., encouragement and moral support), instrumental aids (e.g., facilities and work techniques), and informational aids (e.g., job instructions and goals) to upgrade the capability of the staff in minimizing job deficiencies, improving daily job performance, doing job independently, empowering employees and minimizing job monitoring. Thus, this support practice may lead employees to accomplish yearly key performance indicators.

Third, quality relationship between the management and the employees must be nurtured. This relationship should be built on strong trust, emotion and respect. This practice will help to decrease communication gaps and power distance among the management and employees, and inspire employees to provide brilliant ideas, responses and suggestions in improving the design and administration of pay systems. Hence, this positive situation may lead to reduce dysfunctional conflicts and higher non-financial performance, particularly the sense of obligation, satisfaction, ethical behavior and engagement in organizations.

Fourth, online media can be utilized to improve pay system management. In line with the industrial revolution 4.0, organizations should grab the opportunity to incrementally change a traditional job-based pen and pencil to online media (e.g., internet and social media) in improving the efficiency of pay system management, such as pay for job, pay for merit, worker benefits, pay distributions and pay procedures. The use of such online media will enhance communication openness and help employees to easily understand the complexity of pay entitlements and how these entitlements are determined and distributed to all level of employees. Consequently, this communication practice may stimulate employees to use pay information systems in planning and upgrading their career path in organizations.

Finally, the generalizability of research findings may be enhanced if private universities are considered for future studies. Private universities differ than public universities because they are typically established as business entities by setting up profitable objectives, offer marketable courses, and hold twinning and franchising academic programs with other foreign and local universities. Therefore, they may give the priority on teaching satisfaction with less emphasis on research and development activities. If this study includes both private and public universities in testing the direct effect and indirect effects research models, the results may show enhanced superiors' understanding about nature and effect size of fairness perceptions as an intervening variable in the pay system models of private and public universities. In all, the result of the study can be employed by superiors to enhance public universities' pay system administrations within Southeast Asian countries. The above suggestions may reinforce employees in supporting the pay system objectives.

THEORETICAL IMPLICATIONS

The outcomes of H1 and H2 testing revealed that two-way communication in pay system had positive effects on procedural fairness and distributive fairness. This finding is consistent with the survey results by Robbins et al., (2000), Day (2011), Azman and Adanan (2005), as well as Chan and Lai (2017) which revealed that a two-way communication between administrators and employees will enhance the clarity of pay messages, delivery of accurate and honest information, and sharing power in making pay decisions. Consequently, this communication system may improve employees' perceptions of procedural fairness (Azman & Adanan, 2005; Robbins et al., 2000) and distributive fairness (Chan & Lai, 2017; Day, 2011).

Further, the outcomes of testing of H3 and H4 had proved that the relationship of two-way communication in pay system on job satisfaction is mediated by fairness perceptions. This finding supports the survey results by Azman et al. (2008, 2011), Janssen (2001) and Kwon et al. (2008), which disclosed that a two-way communication between administrators and employees is very useful to accelerate exchange and sharing of pay information, recognize employees' requirements, motivate employees to provide feedback and stimulate participative decision-making on pay systems. This communication practice will trigger employees' perceptions of procedural and distributive fairness, thereby leading to a higher organizational job satisfaction (Azman et al., 2008, 2011; Janssen, 2001; Kwon et al., 2008).

CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

This research confirms the conceptual framework and the hypotheses developed for this study. In particular, the results of hypotheses testing confirm that the implementation of two-way communication in sharing and delivering pay information directly increase the level of employees' perceptions of procedural and distributive fairness. Subsequently, these fairness perceptions result in a greater job satisfaction among employees in Malaysian public universities. The findings are consistent with and have extended the conversation of pay communication literature both within the Western and Asian contexts. Thus, discussions and practices related to organizational compensation need to take into consideration procedural and distributive fairness being two critical variables of two-way communication in pay system. This research further recommends that the implementation of two-way communication between administrators and employees, which can be effectively carried out through one-on-one interaction, printed and electronic media will strongly induce positive work-related attitudes (e.g., efficiency, performance, ethical behaviour and service quality). Thus, these positive outcomes may lead to sustaining and realizing organizational strategic business vision and missions, particularly in the new economic era.

The instrument utilized in this research satisfied the criteria of validity and reliability for this study. Nevertheless, it has several methodological and conceptual limitations. First, the cross-sectional approach of data collection may not provide adequate data to be used in judging a detailed causal relationship within the research sample. Second, specific characteristics for the variables of interest are not assessed in this study. Third, a comparison between several other categories of Malaysian university sector are not drawn in this study. Fourth, this study was conducted in the context of Malaysian public universities setting and excluded Malaysian private universities sector. Finally, the purposive sampling plan utilized in this study may not be able to control response biases. Therefore, the findings of the study may not be generalizable to other organizational settings.

This study also provides useful recommendations for future research and practice. The first recommendation is inferred according to the results of IPMA (see Table 7). According to Hair et al. (2017), IPMA results are very useful to facilitate practitioners in prioritizing the most important actions

to solve critical management problems. As described in Table 7, distributive fairness has the strongest link to job satisfaction, while procedural fairness being the lowest. Therefore, it is recommended for managers to focus more on enhancing the performance of procedural fairness, To do this, managers may undertake the following actions: First, allocations of pay based on job and/or performance should be consistently done according to the organizational pay procedure. This practice will increase positive employee perceptions that they are equally treated in pay allocations. Second, accurate and reliable information should be gathered from the relevant staff and immediate bosses in order to make good pay decisions. If decisions are badly made, management should ready to make corrections according to the organizational pay procedure. This practice will reduce negligence and negative outcomes to all employees. Finally, decision makers should uphold high ethical and morality standards (e.g., measurable objectives and equity-based method) regardless personal factors (e.g., age, gender, nationality and religion) in making pay decisions. This practice will invoke positive employee perceptions that their pay systems are relevant in enhancing their career wellbeing as well as enhancing their understanding while eliminating the misconceptions about the pay systems adopted by the organization. Thus, this positive view can result in increased job satisfaction.

The second part of the recommendation is related to strengthening the conceptual and methodological limitations of this study. First, it is suggested that employee characteristics (e.g., age group, current education, gender and position) should be tested because they may clearly indicate significant different effects on the relationship between the variables of interest. Second, a longitudinal design for future studies can be pertinent in order to examine the magnitude of the causal relationships within the sample data. Third, other specific elements of two-way communication in pay system, such as interpersonal communication and feedback should be considered because they are often acknowledged as essential predictors in the workplace compensation literature. Fourth, other specific indicators of fairness perceptions such as equity, equality and need preferences can be further examined due to its being discussed extensively as significant mediators in pay system research literatures. Sixth, other dimensions of job satisfaction, particularly internal and external job conditions should be given a priority because they are widely recognized as crucial outcomes of the relationship between two-way communication in pay system and fairness perceptions. Finally, other features of work-related attitudes, especially extra role behaviours and voluntary turnover should be given more attention because they are appreciated as significant outcomes of the correlation between two-way communication in pay system and specific fairness perceptions, such as procedural and distributive fairness.

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Determinants of Online Learning Readiness Among University Students

Kamarul Baraini Keliwon
Zaini Embong
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Due to the Covid-19 pandemic, the learning landscape has changed. All universities introduce online learning to the students regardless the students are ready or not. Thus, this study aims to explore the determinants of online learning readiness among university students. The data collection of this study uses an online questionnaire distributed to all accounting students in the Faculty of Economics and Management, University Kebangsaan Malaysia, where 461 students responded to the survey. The finding shows that 52.3% of the respondents were ready for online learning where location, types of internet access and internet data quota are the determinants of their online learning readiness. The study also found that students in the urban area are more ready to learn online than those in the rural area. Moreover, using Wi-Fi makes the students more prepared to join the online class than those who use mobile data. The result also shows that those with unlimited internet data quota are more ready to have online learning. This study's findings suggest that the university administration consider the determinants of online learning readiness such as students' location, types of internet access used by the students, and the internet data quota in setting an online learning policy.

Kesan Pembelajaran Secara Atas Talian Semasa Pandemik Covid-19 dalam Kalangan Pelajar Universiti

Noor Azuan Hashim
Nursyahirah Binti Zambri
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRAK

Kedatangan Covid-19 pada penghujung 2019 telah merubah norma kehidupan seharian manusia dan mencetuskan pelbagai tren dalam masyarakat kini. Walaupun negara berada pada tahap yang berbeza dalam kadar jangkitan COVID-19 mereka, di seluruh dunia pada masa ini terdapat lebih daripada 2 bilion pelajar yang terjejas oleh penutupan sekolah, kolej dan juga institusi pengajian tinggi asbab wabak tersebut. Akibatnya, pendidikan telah berubah secara dramatis, dengan peningkatan e-pembelajaran yang khas, di mana pengajaran dan pembelajaran dilakukan dari jarak jauh dan di platform digital. Bukan sahaja guru-guru dan semua warga pendidik terpaksa belajar mengadaptasi cara pengajaran secara dalam talian ini, malah pelajar-pelajar juga terpaksa menyesuaikan diri mereka dengan pembelajaran cara baharu ini. Pengajaran dan pembelajaran (P&P) cara baharu ini agak kekok pada mulanya, tetapi ianya semakin dapat diterima dikalangan pengajar dan pelajar kerana mereka menyifatkan ini adalah untuk seketika. Walau bagaimanapun, Perintah Kawalan Pergerakan (PKP) yang terpaksa dijalankan acapkali telah sedikit sebanyak menimbulkan ketidakselesaan dikalangan pelajar terutama pelajar di peringkat universiti. Kajian ini dijalankan ke atas 110 orang pelajar universiti mengenai kesan Covid19 ini atas P&P pelajar. Lebih dari separuh pelajar mulai merasakan ketidakselesaan dan ramai mulai mengalami masalah tepu di dalam pembelajaran. Menariknya, pelajar sudah mulai meminta pensyarah memberi kelonggaran kepada mereka untuk berada di kolej serta membuat tugasan di luar bilik darjah. Ini berlaku di kalangan pelajar yang lebih senior tahun pengajiannya. Beberapa maklumat baharu diperolehi dan dibincangkan di dalam artikel ini.

Kata kunci: Covid19, Pandemik, Internet, PKP, Pelajar universiti

Ramalan Berstokastik Terhadap Potensi Takaful Wakaf dalam Meningkatkan Dana Wakaf Tunai

Rubayah Yakob
Zaidi Isa
Nurul Hidayah Md Razali
Hafizuddin-Syah, B.A.M.
Nurul Haffizah Abd Rashid
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Mohd Bokhari Mat Doa
Yayasan Wakaf Malaysia

ABSTRAK

Takaful wakaf merupakan salah satu kaedah kutipan yang dijangka dapat membantu meningkatkan jumlah wakaf tunai di Malaysia. Pelan takaful merupakan mekanisme ekonomi yang telah terbukti mampu meminimumkan risiko kewangan peserta takaful akibat daripada kerugian yang mungkin berlaku pada masa hadapan. Namun begitu, kemampuan pelan takaful dalam meningkatkan jumlah kutipan wakaf melalui manfaat wakaf yang diwujudkan dalam takaful wakaf masih menjadi persoalan. Oleh sebab itu, kajian ini akan menilai potensi pelan takaful wakaf melalui beberapa model dengan andaian tertentu melalui Kaedah Simulasi Monte Carlo. Hasil kajian mendapati bahawa kutipan wakaf tunai maksima mampu mencecah sehingga RM83 juta. Potensi kebolehcapaian juga sangat memberangsangkan di mana sekurang-kurangnya jumlah kutipan wakaf tunai yang boleh diperoleh ialah RM27 juta dan lebih dan 70% kemungkinan untuk memperoleh jumlah kutipan yang kurang daripada RM67 juta. Selain itu, hasil kajian mendapati bahawa jumlah kutipan wakaf tunai lebih tinggi jika manfaat wakaf diperoleh daripada sumbangan peserta takaful berbanding dengan manfaat wakaf yang tertakluk kepada kematian peserta. Hasil kajian juga membuktikan bahawa penyertaan semua pengendali takaful dalam menawarkan pelan takaful wakaf berupaya untuk meningkatkan jumlah kutipan wakaf tunai. Jumlah anggaran kutipan yang tinggi ini dipercayai dapat digunakan untuk membiayai beberapa projek hartanah wakaf yang sedang dibangunkan. Hasil kajian mampu membantu pihak berautoriti wakaf dan takaful lebih objektif untuk merangka strategi pemasaran yang berkaitan dengan golongan sasar terhadap pelan takaful wakaf, dan memastikan kelangsungan pelan ini di pasaran.

Kata kunci: Takaful, wakaf, Simulasi Monte Carlo, ramalan, potensi

PENGENALAN

Wakaf tunai dilihat sebagai sumber pembiayaan utama dan merupakan satu solusi pembiayaan yang realistik yang memberikan banyak kelebihan kepada institusi wakaf selaku pemegang amanah harta wakaf dalam mengurus, membangun dan mengembangkan harta wakaf kepada tahap maksimum. Sifatnya yang lebih cair berbanding harta fizikal menyebabkan wakaf tunai lebih fleksibel dan mempunyai keupayaan pembiayaan kendiri (Zakaria & Muda 2017). Keupayaan pembiayaan kendiri bermaksud keupayaan menjana pendanaan kendiri tanpa kebergantungan kepada mana-mana sumber dana yang lain (Sulaiman & Hasan 2016), sekaligus mengurangkan kebergantungan sumber pembiayaan daripada Kerajaan Persekutuan (Khan et al. 2020; Pitchay et al. 2018). Selain itu, pembiayaan melalui wakaf tunai juga menyelesaikan masalah hukum syara' yang timbul jika pembiayaan melalui bank komersil atau institusi kewangan lain dilakukan bagi tujuan pembiayaan projek-projek pembangunan wakaf (Kader & Mohamad 2019). Maka, keupayaan pembiayaan kendiri membolehkan projek-projek pembangunan wakaf dijayakan menggunakan pembiayaan melalui wakaf tunai (Azmi, Hanif & Mahamood 2021). Namun begitu, ketidakcukupan dana wakaf tunai merupakan punca utama yang menyebabkan usaha pembangunan wakaf di Malaysia masih kurang berdaya maju (Sanep & Nur Diyana 2011). Demi memperkasa potensi wakaf di seluruh Malaysia, institusi wakaf memerlukan kutipan dana yang berskala besar sekurang-kurangnya berjumlah RM80 bilion (Amir Shaharuddin 2020b; Thaker 2018). Justeru, pihak-pihak berautoriti seperti Majlis Agama Islam (MAIN), Yayasan Wakf Malaysia (YWM) dan Jabatan Wakaf, Zakat dan Haji (JAWHAR) giat berusaha ke arah meningkatkan kutipan wakaf tunai. Salah satu mekanisme kutipan yang berpotensi tinggi adalah melalui pelan takaful wakaf.

Takaful wakaf merupakan integrasi daripada dua konsep iaitu takaful dan wakaf. Di bawah pelan takaful wakaf, apabila seseorang peserta takaful meninggal dunia, waris akan menerima sejumlah wang sebagai manfaat kematian (tertakluk kepada terma dan syarat di bawah pelan takaful). Selain itu, sejumlah wang juga akan disalurkan sebagai wakaf atas nama peserta yang meninggal dunia kepada institusi wakaf yang diiktiraf dan bertindak sebagai pemegang amanah, contohnya Yayasan Wakaf Malaysia. Sistem takaful sememangnya sudah diakui sebagai alat ekonomi yang berupaya untuk megurangkan kerugian kewangan akibat daripada musibah yang menimpa peserta (Rejda, 2017). Manfaat kematian yang diperoleh daripada pelan takaful berupaya meringankan beban kewangan yang ditanggung oleh waris. Namun begitu, peranan takaful sebagai mekanisme kewangan untuk meningkatkan sosio-ekonomi ummah melalui elemen wakaf sepertimana dalam pelan takaful wakaf masih lagi diperdebatkan. Dengan kata lain, potensi pelan takaful wakaf sebagai pengantara untuk meningkatkan kutipan wakaf tunai masih belum dibuktikan dalam kajian-kajian lepas. Malah, kemampuan dan kebolehcapaian pelan ini dalam membantu menyediakan dana bagi membiayai projek pembangunan wakaf seperti yang diharapkan, masih tidak diketahui dengan jelas.

Oleh sebab itu, kajian ini bertujuan untuk meramal potensi takaful wakaf secara objektif dan mengira kebarangkalian kebolehcapaian potensi pelan takaful wakaf dalam meningkatkan kutipan dana wakaf tunai menggunakan kaedah Simulasi Monte Carlo (SMC). Kajian ini berbeza dengan kajian-kajian lepas dalam dua aspek. Pertama, kajian ini merupakan kajian pertama yang mengganggarkan potensi pelan takaful dalam meningkatkan kutipan dana wakaf tunai. Jika diteliti, kajian-kajian terdahulu lebih menumpukan kepada potensi kutipan wakaf tunai melalui sumbangan individu secara suka rela (contohnya, Wan Ismail, 2020; Mohamad Suhaimi dan Ab Rahman, 2017; Pitchay et al., 2014). Selain kaedah suka rela, takaful wakaf juga merupakan medium yang boleh digunakan untuk berwakaf, namun potensinya masih tidak diterokai sepenuhnya dalam kajian-kajian terdahulu. Kedua, kajian ini menggunakan kaedah SMC untuk meramal jumlah kutipan wakaf tunai secara stokastik. Kajian terdahulu mengganggarkan jumlah kutipan wakaf tunai secara purata berdasarkan jumlah kutipan dan populasi Muslim yang bekerja (contohnya, Wan Ismail, 2020; Muhammad, 2009). Kaedah SMC ini lebih realistik dalam penganggaran jumlah kutipan wakaf tunai kerana ia mengambilkira semua input (pembolehubah) dalam satu model secara serentak dan pada masa yang sama mengekalkan kerawakan (tabiat sebenar) pembolehubah tersebut.

Kajian ini juga dirasakan sangat signifikan kerana menyediakan nilai kebarangkalian kebolehcapaian potensi kutipan pelan takaful wakaf tersebut. Hasil kajian mampu membantu pihak berautoriti wakaf dan takaful lebih objektif untuk merangka strategi pemasaran yang berkaitan dengan golongan sasar terhadap pelan takaful wakaf, menambah baik fitur yang ditawarkan di bawah pelan dan menganalisis kontrak pelaksanaan pelan takaful wakaf. Selain itu, apa yang lebih penting ialah memberikan kewajaran tentang kelangsungan pelan ini sebagai platform berwakaf secara tunai dalam kalangan masyarakat Islam di Malaysia.

ULASAN LITERATUR

Model Wakaf dan Pelaksaaan

Elemen wakaf yang disulamkan dalam produk takaful bukanlah idea yang baharu, malah para pengkaji telah membincangkan kewajarannya sejak tahun 2007. Elemen waqf dalam polisi takaful telah direalisasikan melalui model takaful wakaf yang diperkenalkan oleh Sarjana Syariah Pakistan iaitu Mufti Taqi Usmani (Ali Hassan, 2020). Konsep umum pelan takaful wakaf dirancang untuk membolehkan setiap individu menabung secara berkala dengan tujuan mengumpulkan dana yang boleh ditinggalkan sebagai sumbangan di bawah sistem wakaf. Dalam model ini, di peringkat awal, pemegang saham (shareholders) menyuntik sumbangan bagi menubuhkan dana wakaf. Peserta yang merupakan ahli dana wakaf juga menyumbang (derma) kepada dana wakaf (Saeed, 2019). Dana yang disumbangkan oleh pemegang saham dan peserta tersebut perlu dilaburkan dalam pelaburan patuh Syariah. Berdasarkan prinsip wakaf, para penderma (pemegang saham dan peserta) akan kehilangan hak pemilikan atas sumbangan wang mereka dalam dana wakaf. Amaun dalam dana wakaf akhirnya menjadi harta wakaf yang hanya digunakan untuk faedah semua peserta (Frenz & Soualhi, 2010, ms: 114-115).

Dalam model takaful wakaf, pengendali takaful akan bertindak sebagai pengurus dan pemegang amanah kepada dana wakaf. Mereka mempunyai pilihan untuk mengurus dana wakaf tersebut berdasarkan kontrak/model seperti Wakalah, Mudharabah atau Hybrid. Umumnya, model hybrid telah diguna pakai, contohnya Model Wakalah-Wakaf dan Mudharabah-Wakaf. Perbezaan ketara antara kedua-dua model ini adalah dari segi yuran wakalah (ejen) yang diterima oleh pengendali takaful dan pembahagian keuntungan pelaburan antara pengendali takaful dan peserta (Ali Hassan, 2020). Model

Wakalah-Wakaf dilaporkan sangat berjaya dilaksanakan oleh pengendali takaful di Pakistan dan Afrika Selatan termasuk Pakistan Takaful Limited, Dawood Family Takaful dan Pak-Qatar FamilyTakaful Limited (Nurul Hidayah, 2019). Nurul Hidayah (2019) menegaskan bahawa risiko paling tinggi dalam melaksanakan Model Wakalah-Wakaf adalah memastikan dana wakaf mencukupi untuk membayar tuntutan daripada peserta. Tuntutan yang tinggi daripada para peserta mampu merencatkan kelangsungan dana wakaf untuk bertahan selama-lamanya. Manakala, Model Mudharabah-Wakaf pernah diaplikasi oleh Syarikat Takaful Malaysia Berhad sekitar tahun 2002 (Wan Mohd Al-Faizee & Salmy Edawati, 2014). Menurut Wan Mohd Al-Faizee dan Salmy Edawati (2014), pelan takaful wakaf berdasarkan kontrak ini mendapat sambutan yang sangat menggalakkan daripada masyarakat sepanjang tempoh pelaksanaannya, di mana kutipannya mencecah RM7.5 juta dengan penyertaan peserta seramai 5000 orang. Pelan ini memberi ruang kepada setiap lapisan masyarakat di Malaysia untuk berwakaf tanpa perlu meninggalkan komitmen kewangan yang lain (Nurul Hidayah, 2019). Malangnya, ia ditarik balik daripada pasaran pada tahun 2009. Asmak dan Wan Marhaini (2011) dan Ashraf (2007) mendakwa bahawa antara sebabnya adalah kesamaran kontrak syariah dan ketidakjelasan operasi penajaan jaminan ganti rugi.

Sejak itu, isu tentang justifikasi kebolehpasaran dan status syariah pelan takaful wakaf ini diperdebatkan dari masa ke masa. Wan Mohd Al Faizee dan Salmy Edawati (2014) berpendapat bahawa pelan takaful wakaf ini perlu dibawa semula ke pasaran semasa dengan menyepadukan elemen wakaf dalam polisi takaful menggunakan model yang berbeza daripada sebelum ini serta menerapkan inovasi yang baharu di dalam pelaksanaannya. Manakala, Che Khadijah (2018) menekankan bahawa institusi yang terlibat dengan pengurusan wakaf dan takaful perlu bekerjasama dalam memikirkan strategi yang terbaik untuk menjamin kelangsungan takaful wakaf yang diperkenalkan di pasaran. Ini kerana keberhasilan instrumen wakaf adalah sangat bergantung kepada kecekapan institusi yang bertindak sebagai pemegang amanah. Kajian ini juga bersetuju bahawa aplikasi takaful ke dalam model wakaf harus diberikan perhatian semula bagi mengembangkan instrumen kewangan Islam. Ini selari dengan kajian Sadiq dan Mushtaq (2015) yang menegaskan bahawa perkembangan institusi kewangan dan ekonomi Islam mempunyai potensi untuk dibangunkan di samping berkemampuan untuk mempromosikan matlamat pembangunan lestari atau Sustainable Development Goals (SDGs) dalam menghapuskan kemiskinan dalam setiap aspek. Mohamad, Suzana dan Ishak (2016) menegaskan bahawa model takaful berasaskan wakaf bertujuan untuk mendapat faedah bersama dan bukan untuk meraih keuntungan. Malah, secara khususnya, pelan ini juga dilihat berkemampuan untuk melebarkan lagi jaringan institusi kewangan dan sosial negara (Salman, Abdul Ghafar & Muhammad Hakimi, 2017). Pelaksanaan takaful wakaf sebagai serampang dua mata bagi kerajaan untuk meningkatkan ekonomi negara di samping membantu masyarakat Islam untuk menunaikan kewajipan mereka dalam melaksanakan ibadah wakaf dan seterusnya memainkan peranan dalam memastikan kelangsungan sosio-ekonomi ummah. Namun begitu, sejauh mana potensi secara objektif pelan takaful wakaf dalam memantapkan kutipan wakaf tunai masih samar dan jarang diterokai oleh kajian terdahulu.

Potensi Kutipan Dana Wakaf Tunai

Wakaf tunai bermaksud mewakafkan wang tunai kepada mana-mana pemegang amanah wakaf, yang modalnya dikekalkan kepada penerima wakaf. Wang tersebut dikumpulkan dan digunakan untuk membeli harta kekal, dan manfaat hasil wakaf tunai tersebut (yang telah ditukarkan kepada harta kekal) akan digunakan untuk kebajikan dan pembangunan ummah (manual pengurusan wakaf tunai, JAWHAR, 2009).

Di Malaysia, pengurusan dan pentadbiran wakaf adalah di bawah kuasa Majlis Agama Islam Negeri-negeri (MAIN). MAIN bertindak sebagai pemegang amanah (nazir) tunggal atau penjaga kepada setiap harta wakaf yang didaftarkan di bawah Majlis (Marina et al. 2020). Selain dari MAIN, terdapat organisasi Kerajaan Persekutuan Malaysia (*The Federal Government of Malaysia*) iaitu Yayasan Waqaf Malaysia (YWM) yang dilantik untuk bersama-sama membantu MAIN bagi membangun dan memajukan harta wakaf di seluruh negara Malaysia (Yayasan Waqaf Malaysia 2021a). Di samping itu, YWM turut berfungsi dalam bersama-sama mengumpulkan dana wakaf tunai untuk dijadikan sebagai modal ekonomi umat Islam (Yayasan Waqaf Malaysia 2021a). Setakat Mac 2012 sehingga Disember 2019, usahasama beberapa MAIN dan YWM telah berjaya mengumpulkan kutipan dana wakaf tunai sebanyak RM12, 831, 812.67 (lihat Jadual 1).

JADUAL 1: Kutipan Dana Wakaf Tunai

Usaha Sama	Kutipan Dana Wakaf Tunai (RM)
PWS bersama YWM	8 391 610.67
PBMaINS bersama YWM	123 711
MAIJ bersama YWM	224 922
MAIK bersama YWM	3 800 000
MAIDAM bersama YWM	244 031
MAIPs bersama YWM	38 458
MAINkd bersama YWM	6 080
MAIWP bersama YWM	3000
Jumlah Keseluruhan	**12 831 812.67**

Sumber: Yayasan Waqaf Malaysia (2019, 2021b)

Nota:

PWS	Perbadanan Wakaf Selangor
PBMaINS	Perbadanan Baitulmal Negeri Sembilan
MAIJ	Majlis Agama Islam Negeri Johor
MAIK	Majlis Agama Islam & Adat Istiadat Melayu Kelantan
MAIDAM	Majlis Agama Islam & Adat Melayu Terengganu
MAIPs	Majlis Agama Islam & Adat Istiadat Melayu Perlis
MAINkd	Majlis Agama Islam Kedah
MAIWP	Majlis Agama Islam Wilayah Persekutuan

Secara praktikalnya, terdapat pelbagai kaedah perwakafan yang ditawarkan dan dilaksanakan oleh MAIN dan YWM dalam meningkatkan perwakafan secara tunai. Antara kaedah perwakafan yang disediakan oleh pihak MAIN seperti wakaf tunai (merangkumi wakaf tunai pendidikan, wakaf tunai kesihatan atau hospitaliti, wakaf tunai pembangunan ekonomi, wakaf tunai bangunan komersil, dan lain-lain), saham wakaf, wakaf saham, wakaf kaki dan sebagainya (Marina et al. 2020). Di samping itu, YWM turut menawarkan pelbagai kaedah perwakafan secara tunai yang merangkumi wakaf tunai am, wakaf tunai khas perkhidmatan air, sijil wakaf tunai kesihatan, sijil wakaf tunai pendidikan, sijil wakaf tunai pembangunan ekonomi, sijil wakaf tunai bangunan; tunai wakaf Bank Rakyat; *waqf linked unit trust*; dan pelan takaful wakaf (Yayasan Waqaf Malaysia 2015, 2021b). Mohamad Suhaimi dan Ab Rahman (2017) mendedahkan bahawa kutipan wakaf tunai daripada individu mampu menghasilkan jumlah kutipan yang besar. Kajian yang sama mendapati bahawa dengan anggaran kadar minimum sumbangan wakaf bagi kumpulan berpendapatan tinggi dan pertengahan sebanyak RM5 dan RM1 sebulan masing-masing, jumlah kutipan wakaf terkumpul boleh mencecah sehingga RM21.29 juta. Jumlah kutipan yang besar ini sudah tentu sangat membantu dalam membangunkan hartanah wakaf. Keadaan ini selari dengan kenyataan Presiden Kongres Kesatuan Pekerja-pekerja di dalam Perkhidmatan Awam Malaysia atau lebih dikenali sebagai CUEPACS melaporkan bahawa jika semua penjawat awam yang berjumlah 1.6 juta orang berwakaf purata RM10 sebulan, maka kutipan wakaf tunai mampu mencecah sehingga RM192 juta setahun (Berita Harian Online, 13 April, 2021). Kajian Wan Ismail (2020) agak berbeza dengan Mohamad Suhaimi dan Ab Rahman (2017) bila mana kajian beliau telah menganggar kadar sumbangan wakaf bagi individu Muslim yang bekerja di Malaysia berdasarkan kutipan wakaf tunai yang telah berjaya dikumpulkan. Wan Ismail (2020) mendedahkan bahawa, pada hakikatnya, seorang pekerja Muslim di Malaysia yang bekerja hanya berwakaf sebanyak RM0.28. Kadar ini didasarkan daripada jumlah wakaf tunai terkumpul pada 2019 yang berjumlah RM2,850,942.82 dan bilangan individu Muslim yang bekerja seramai 10,190,291.90 orang dengan andaian bahawa kutipan wakaf tunai berkenaan hanya disumbangkan oleh individu Muslim yang berada dalam pasaran buruh dan mempunyai pekerjaan. Terdahulu, Muhammad (2009) menyatakan bahawa jumlah kutipan wakaf tunai berpotensi untuk mencapai jumlah RM4.3 bilion jika rakyat Malaysia menyumbang RM1 sehari. Semua kajian terdahulu, pada hakikatnya tidak mengkaji potensi kaedah kutipan wakaf tunai yang diguna pakai tetapi beberapa anggaran dibuat bagi mengukuhkan kajian yang dibincangkan. Namun, anggaran jumlah kutipan yang dinyatakan merujuk kepada jumlah wakaf tunai yang boleh dikumpulkan dalam kalangan individu secara suka rela.

Berdasarkan pelbagai kaedah perwakafan, pelan takaful wakaf merupakan salah satu kaedah berwakaf yang semakin mendapat perhatian dan diterima masyarakat khususnya di Malaysia. Dengan menambah elemen wakaf kepada skim perlindungan takaful yang menepati Syariah, ia bukan sahaja memberi kelebihan dalam mengintegrasi dan meningkatkan dana wakaf tunai malah, dilihat berpotensi sebagai sumber dana alternatif yang berupaya menjaga maslahah ekonomi dan sosial (Hussein 'Azeemi,

Muhamad Firdaus & Azman 2019, 2020). Muhammad Ridhwan (2020) menyatakan bahawa dengan adanya pelan takaful wakaf, ia mewujudkan satu platform perlindungan kewangan Islam yang bukan hanya untuk melindungi diri peserta pelan sendiri seperti pelan takaful sedia ada bahkan, memberikan perlindungan dan meringankan beban golongan yang kurang berkemampuan yang terdiri daripada Orang Kurang Upaya (OKU), begitu juga mereka yang tergolong dalam kalangan B40[1] dan B20[2].

Menurut statistik (2017-2019), pelan takaful wakaf yang dilaksanakan oleh YWM melalui kerjasama dengan beberapa buah syarikat takaful seperti Takaful Ikhlas General Berhad (TIGB)[3], Sun Life Takaful Malaysia Berhad (SLMT)[4] dan AmMetLife Takaful Berhad (AmMetLife Takaful)[5] telah berjaya mengumpulkan sejumlah dana wakaf berjumlah RM124,715.00 (lihat Jadual 2). Fenomena ini menunjukkan pengaplikasian takaful wakaf semakin berkembang dan berjaya menarik peserta pelan untuk berwakaf menerusi sebahagian sumbangan daripada nilai caruman atau jumlah manfaat yang diterima oleh mereka kepada YWM. Maka, potensi kutipan wakaf tunai melalui takaful wakaf juga wajar untuk dinilai dan diketahui.

JADUAL 2: Kutipan Dana Menerusi Takaful Wakaf

Kerjasama YWM Bersama	Tahun & Kutipan Dana (RM)			Jumlah Keseluruhan (RM)
	2017	2018	2019	
Takaful Ikhlas Family Berhad	TM	TM	TM	TM
Sun Life Takaful Malaysia	828.00	54 942.00	66 945.00	122 715.00
AmMetLife Takaful Berhad	0	0	2 000.00	2 000.00
Jumlah	**828.00**	**54 942.00**	**68 945.00**	**124 715.00**

Sumber: Yayasan Waqaf Malaysia (2021b)

Nota:

TM   Tiada maklumat

[1] B40 merupakan golongan yang mempunyai pendapatan seisi rumah dengan purata bulanan di bawah RM4,850 (Jabatan Perangkaan Malaysia 2019).

[2] B20 adalah merupakan golongan yang hanya mampu memenuhi keperluan asas seperti makanan, rumah dan pakaian (Sri Ayu Kartika 2019; Jabatan Perangkaan Malaysia 2019).

[3] TIGB memperuntukkan RM1,000 di atas nama peserta pelan untuk sumbangan wakaf kepada YWM sekiranya berlaku kematian. Peserta pelan juga boleh berwakaf kepada YWM dengan maksimum 1/3 daripada jumlah manfaat sijil takaful setelah kematian peserta pelan (YWM 2021d).

[4] SLMT
    a. Produk Sun Infinity-I:
       SLMT akan membayar 5% daripada jumlah keseluruhan caruman selepas kematian peserta pelan kepada YWM. Produk ini boleh disertai oleh masyarakat bukan Islam (YWM 2021d).
    b. Produk SunLink Istismar Plus:
       SLMT akan membayar kepada YWM maksimum 10% daripada manfaat peserta pelan dan kematian akibat kemalangan diri bagi pihak peserta pelan daripada dana tabarru' apabila berlakunya kematian ((YWM 2021d).

[5] AmMetLife Takaful menawarkan peserta pelan untuk memilih YWM sebagai salah satu penerima manfaat sijil takaful (YWM 2021d).

METODOLOGI

Data Kajian

Data kajian adalah data sekunder yang didapati daripada laporan tahunan institusi berkaitan dari tahun 2015-2019 termasuk Jabatan Perangkaan Malaysia, Syarikat Takaful Ikhlas, Laporan Persatuan Takaful Malaysia dan Bank Negara Malaysia. Selain itu, Yayasan Wakaf Malaysia juga telah bekerjasama untuk membekalkan beberapa data yang relevan. Data kajian hanya meliputi data berkaitan dengan takaful motor. Di Malaysia, takaful motor mendominasi campuran portfolio dalam takaful am, iaitu melebih 60% dari tahun 2015-2019, seperti yang ditunjukkan oleh Jadual 3. Selain itu, penyertaan takaful/ insurans motor adalah mandatori di bawah undang-undang Malaysia dan ini akan mengurangkan bilangan pembolehubah rawak yang dimasukkan sebagai input dalam persamaan (model) untuk meramal potensi kutipan pelan takaful wakaf.

JADUAL 3: Campuran Portfolio Takaful Am

Campuran Portfolio Takaful Am	2015	2016	2017	2018	2019
Motor	61.90%	60.50%	59.20%	62.30%	64.80%
Kebakaran	20.30%	21.05	21.50%	20.10%	18.00%
Lain-lain	17.80%	18.50%	19.30%	17.60%	17.20%

Sumber: Laporan Tahunan, Persatuan Takaful Malaysia (2019)

Kaedah Analisis

Data kajian dianalisis menggunakan Kaedah Simulasi Monte Carlo (SMC). Menurut Mun (2015), SMC adalah penjana nombor rawak yang digunakan untuk membuat ramalan, anggaran dan analisis risiko. Tambahnya lagi, simulasi akan mengira pelbagai senario yang digambarkan melalui model (rumus/ persamaan) tertentu dengan memilih pelbagai nilai bagi pembolehubah rawak yang mempunyai taburan kebarangkalian yang telah ditentukan terlebih dahulu secara berulang-ulang (Mun, 2015). Setiap scenario menghasilkan ramalan yang berkaitan dengan model. Dalam kaedah ini pembolehubah rawak dianggap sebagai input manakala ramalan yang merupakan peristiwa yang dikehendaki sebagai output. Kaedah SMC mengizinkan semua input diambil kira dalam satu model secara serentak dan pada masa yang sama mengekalkan kerawakan (tabiat sebenar) pembolehubah tersebut.

Seperti yang diterangkan, kaedah SMC menjana nilai-nilai yang mungkin bagi pembolehubah rawak berdasarkan kepada andaian taburan kebarangkalian tertentu, contohnya taburan normal, lognormal, seragam, segi tiga dan diskrit. Dalam kajian ini, taburan yang digunakan adalah taburan segi tiga iaitu taburan kebarangkalian berterusan (*continuous probability distribution*) yang berbentuk segi tiga. Taburan ini dianggap yang paling mudah memandangkan parameter taburan dianggarkan daripada data sampel iaitu:

Nilai minimum sampel sebagai parameter a;
Niilai puncak (ketinggian segi tiga) iaitu statistik yang munasabah (seperti purata, penengah atau mod) sebagai parameter b;
Nilai maksimum sampel sebagai paremeter c;

di mana: a≤b≤c

Nilai minimum, puncak dan maksima adalah data input yang digunakan untuk meramal jumlah kutipan wakaf tunai (output) berdasarkan model yang ditetapkan. Simulasi sebanyak 1000 larian dilakukan bagi memperoleh 1000 data bagi setiap input yang terlibat untuk meramal output. Oleh kerana 1000 data telah dijana maka output yang diperoleh juga adalah sebanyak 1000 nilai. Nilai-nilai ini ditunjukkan dalam bentuk taburan. Natijahnya, ramalan yang dilakukkan terhadap output bukanlah bersifat statik (ramalan titik) tetapi bersifat stokastik iaitu ramalan berdasarkan taburan. Selain itu, kaedah SMC menyediakan nilai kebarangkalian kebolehcapaian ramalan tersebut.

Pemboleh Ubah Kajian

Dalam kaedah SMC, terdapat dua kategori data yang diperlukan iaitu input dan output. Output merupakan peristiwa yang dikehendaki. Dalam kajian ini, jumlah kutipan wakaf tunai bertindak sebagai output dan diramal menggunakan empat model yang berbeza (M1 – M4). Manakala, input merujuk kepada pemboleh ubah rawak yang digunakan untuk meramal output. Kaedah SMC membenarkan input mengambil pelbagai nilai mengikut taburan yang telah ditetapkan dan dalam kajian ini taburan yang diaplikasikan ialah taburan segi tiga. Antara input yang digunakan dalam kajian ini termasuk penguasaan pasaran TIGB, bilangan kematian peserta takaful motor, pertumbuhan sumbangan kasar takaful motor dan sumbangan peserta takaful yang diserahkan sebagai bahagian wakaf. Selain itu, terdapat beberapa pemalar yang digunakan iaitu syer pasaran takaful motor, bahagian wakaf yang disumbangkan dalam pelan IWE dan sumbangan kasar takaful motor. Berikut ialah penerangan terperinci bagi input dan pemalar yang diguna pakai dalam kajian ini:

A. Input

i. *Bahagian pasaran takaful motor Takaful Ikhlas General Berhad (TIGB)*

Dalam M1, kutipan wakaf tunai diramal berdasarkan kepada pelan Ikhlas Waqf & Endowmen yang ditawarkan oleh TIGB. Oleh sebab itu penguasaan TIGB dalam pasaran takaful motor perlu diperoleh. Berdasarkan laporan Takaful Dynamics (2015), TIGB menguasai bahagian pasaran takaful am sebanyak 12%.

Sementara itu, M2 akan meramal kutipan wakaf tunai jika semua takaful operator yang menawarkan takaful motor Bersama-sama menawarkan manfaat wakaf dalam pelan takaful motor masing-masing. Oleh sebab itu, syer pasaran takaful motor diperingkat industri digunakan. Setakat ini, terdapat lima operator takaful yang menawarkan takaful motor iaitu Takaful Ikhlas General Berhad, Zurich General Takaful Malaysia Berhad, Syarikat Takaful Malaysia Am Berhad, Etiqa General Takaful Berhad dan Hong Leong MSIG Takaful Berhad. Laporan Persatuan Takaful Malaysia (2019) menyatakan bahawa syer pasaran takaful motor adalah pada 20.3%.

ii. *Bilangan kematian peserta takaful motor*

Di bawah M1 dan M2, manfaat wakaf hanya akan dibayar apabila peserta takaful motor meninggal dunia. Oleh sebab itu, M1 dan M2 memerlukan data bilangan kematian peserta takaful motor, namun data ini tidak boleh diperoleh secara langsung daripada pengendali takaful terbabit kerana tertakluk di bawah peraturan sulit dan persendirian, Skop kematian terpaksa dihadkan iaitu hanya kepada kematian akibat kemalangan kenderaan. Memandangkan jenis kenderaan yang paling tinggi berada di jalan raya adalah kereta dan motosikal (Laporan Jabatan Perangkaan Malaysia, 2020), maka kemalangan maut yang hanya membabitkan dua jenis kenderaan ini yang diambil kira.

Berdasarkan Jadual 4, bilangan kemalangan maut bagi kereta dan motosikal sepanjang tahun 2015 – 2019 tidak konsisten. Didapati bahawa purata kemalangan maut akibat kereta dan motosikal ialah 841.8 dan 3851.2 setahun. Sementara itu, bilangan kemalangan maut yang membabitkan kereta dan motosikal paling rendah ialah pada tahun 2018 dan 2019 iaitu sebanyak 780 dan 3617. Bilangan kematian akibat kemalangan kereta dan motosikal paling tinggi berlaku pada tahun 2016 dan yang berjumlah 889 dan 4077. Bilangan kematian total peserta takaful motor adalah jumlah bilangan kematian bagi kedua-dua jenis kenderaan ini. Contohnya, bilangan kematian total akibat daripada kemalangan pada tahun 2018 ialah sebanyak 4535 (780+3755). Bilangan kematian total akan berada pada julat nombor yang tertentu.

JADUAL 4: Pendaftaran Kenderaan Baru dan Kemalangan Maut

Item	2015	2016	2017	2018	2019
Kemalangan maut (pemandu kereta)	861	889	818	780	861
Kemalangan maut (penunggang motosikal)	3,816	4,077	3,991	3,755	3,617

Sumber: Jabatan Perangkaan Negara (2020)

iii. *Pertumbuhan sumbangan kasar takaful motor*

Dalam M3 dan M4, output diramal berdasarkan kepada jumlah sumbangan peserta takaful motor, tidak seperti dalam M1 dan M2 yang berdasarkan jumlah manfaat wakaf di bawah IWE. Di sebabkan, sumbangan sebenar yang dibayar oleh setiap peserta takaful tidak dapat diperoleh, maka kajian ini perlu mendapatkan kadar pertumbuhan sumbangan takaful motor di peringkat industri. Kadar pertumbuhan yang ditetapkan bersifat rawak dan mengambil nilai yang berada dalam julat tertentu.

Berdasarkan Jadual 5 jumlah sumbangan kasar bagi takaful motor meningkat agak perlahan pada tahun 2016-2017 selepas mengalami kadar pertumbuhan dua digit pada tahun 2015. Walau bagaimanapun, sumbangan kasar takaful motor pada tahun 2018 telah meningkat sebanyak 13.40%, kepada RM1.72 billion. Pada tahun 2019, sumbangan kasar telah mencatatkan angka RM2.15 billion iaitu peningkatan sebanyak 24.90% berbanding tahun sebelumnya. Kadar pertumbuhan sumbangan kasar takaful motor paling rendah dan tinggi ialah 2.3% dan 24.9% masing-masing. Maka, pertumbuhan sumbangan kasar takaful motor dijangkakan berada dalam julat 2.30 – 24.9%.

JADUAL 5: Sumbangan Kasar Takaful Motor

	2015	2016	2017	2018	2019
Sumbangan Kasar Takaful Motor (RM billion)	1.42	1.46	1.52	1.72	2.15
Kadar Pertumbuhan Sumbangan Kasar Takaful Motor	10.10%	2.30%	4.10%	13.40%	24.90%

Sumber: Laporan Tahunan 2019, Persatuan Takaful Malaysia (2019)

iv. Sumbangan peserta takaful yang diserahkan sebagai bahagian wakaf

Sumbangan kasar takaful motor merupakan bayaran yang dikenakan kepada peserta sebagai ganti untuk mendapatkan perlindungan. Elemen sumbangan kasar terdiri daripada kadar sumbangan tulen, marjin perbelanjaan, kerugian luar jangka dan marjin keuntungan. Sejak liberalisasi insurans motor yang telah dikuatkuasakan pada 1 Julai 2017, sumbanagn takaful motor tidak lagi dikawal oleh tarif. Malah, sumbangan takaful motor akan bergantung kepada profil risiko individu, model perniagaan dan strategi pengendali takaful.

Dalam M3 dan M4, output diramal berdasarkan kepada kepelbagaian nilai dalam sumbangan peserta takaful. Ini bermakna model ini mengandaikan, peserta dengan suka rela akan menyerahkan peratusan tertentu daripada jumlah sumbangan mereka sebagai wakaf tunai. Model ini tidak lagi diaplikasi dalam takaful motor, namun telah diamalkan di bawah pelan takaful wakaf keluarga iaitu Takaful Mulia yang mana sebanyak 3% daripada jumlah sumbangan peserta dimasukkan sebagai manfaat wakaf. Berdasarkan keadaan ini, maka M2 dan M3 akan mengandaikan peserta takaful motor akan menyerahkan peratusan sumbangan mereka dalam julat 1-3%.

B. Pemalar

i. Syer pasaran takaful motor

Syer pasaran dilayan sebagai pemalar dalam M1 dan M2 dan ditetapkan pada kadar 20.3%. (Laporan Tahunan Persatuan Takaful Malaysia, 2019).

ii. Bahagian wakaf yang disumbangkan dalam pelan IWE

IWE ditawarkan kepada peserta yang menyertai mana-mana sijil takaful am yang ditawarkan oleh Syarikat Takaful Ikhlas Berhad termasuk takaful motor, kediaman dan kemalangan peribadi. Di bawah IWE, terdapat dua opsyen wakaf tunai yang ditawarkan kepada peserta di bawah mana-mana pelan takaful am (Syarikat Takaful Ikhlas). Pertama, pengendali takaful memperuntukkan RM1000 di atas nama peserta sebagai sumbangan wakaf sekiranya berlaku kematian kepada peserta akibat peril yang dilindungi di bawah setiap pelan takaful am yang disertainya. Kedua, peserta boleh menambah jumlah sumbangan wakaf sebanyak RM1000 dengan menyertai pelan takaful kemalangan peribadi, di mana jumlah perlindungan sehingga 30% akan disalurkan untuk sumbangan wakaf. Maka, nilai pemalar yang digunakan ialah RM1000.

iii. Sumbangan kasar takaful motor

Berdasarkan Jadual 5, sumbangan kasar takaful motor ditetapkan pada jumlah RM2.15 bilion (Laporan Persatuan Takaful Malaysia, 2019).

Spesifikasi Model

M1 merujuk kepada model yang menggambarkan situasi sedia ada di pasaran, manakala M3 – M4 merupakan model yang menggua pakai situasi yang diandaikan/ boleh dipertimbangkan dalam meningkatkan jumlah kutipan wakaf tunai melalui pelan takaful wakaf. Beberapa andaian diperlukan untuk membentuk setiap model ini. Jadual 6 memaparkan andaian yang digunakan dan rumus yang terlibat dalam setiap model.

JADUAL 6: Andaian dan Model Kajian

Model (M)	Andaian
M1	1. Jumlah kutipan wakaf berdasarkan terma dan syarat dalam pelan IWE iaitu pengendali takaful terbabit akan membayar wakaf tunai yang bernilai RM1000 jika berlaku kematian akibat kemalangan ke atas peserta takaful motor;
	2. Kematian peserta adalah akibat kemalangan yang membabitkan kereta dan motosikal sahaja;
	3. Syer pasaran takaful motor tidak berubah sepanjang 5 tahun kajian pada 20.3%;
	4. Hanya sebuah pengendali takaful yang menawarkan IWE – amalan sedia ada di pasaran.
	5. Penguasaan pasaran pengendali takaful yang menawarkan IWE adalah sekitar 10 – 12%.
Rumus M1	Jumlah kutipan wakaf tunai = Syer pasaran motor takaful x *penguasaan pasaran takaful ikhlas* x (*Bilangan kematian motor + bil kematian kereta*) x jumlah wakaf tunai peserta

Jumlah kutipan wakaf tunai = 20.3% x (*10-12%*) x (*bilangan kematian peserta*) x 1000 |
M2	1. Jumlah kutipan wakaf berdasarkan terma dan syarat dalam pelan IWE iaitu pengendali takaful terbabit akan membayar wakaf tunai yang bernilai RM1000 jika berlaku kematian akibat kemalangan ke atas peserta takaful motor;
	2. Kematian peserta adalah akibat kemalangan yang membabitkan kereta dan motosikal sahaja;
	3. Syer pasaran takaful motor tidak berubah sepanjang 5 tahun kajian pada 20.3%;
	4. Semua pengendali takaful am menawarkan pelan takaful wakaf yang mempunyai fitur seperti IWE opsyen 1.
Rumus M2	Jumlah kutipan wakaf tunai = Syer pasaran motor takaful x (*Bilangan kematian motor + bil kematian kereta)* x jumlah wakaf tunai peserta

Jumlah kutipan wakaf tunai = 20.3% x (*bilangan kematian peserta*) x 1000 |
M3	1. Jumlah kutipan wakaf tidak tertakluk kepada kematian peserta tetapi berdasarkan kepada sumbangan peserta pada kadar 1 - 3%;
	2. Sumbangan kasar takaful motor tetap sepanjang tahun kajian pada jumlah 2.15 bilion;
	3. Pertumbuhan sumbangan kasar takaful motor pada kadar 3 – 30%
	4. Hanya sebuah pengendali takaful yang menawarkan pelan takaful wakaf seperti dalam (1).
	5. Penguasaan pasaran pengendali takaful dalam (3) adalah sekitar 10 – 12%.
Model M3	Jumlah kutipan wakaf tunai = Sumbangan kasar takaful motor x *Pertumbuhan sumbangan kasar takaful motor* x *Syer pasaran Syarikat Takaful Ikhlas* x *Sumbangan peserta takaful motor*

Jumlah kutipan wakaf tunai = 2.15 b x (*3%-30%*) x (*10-12%*) x (*1-3%*) |
M4	1. Jumlah kutipan wakaf tidak tertakluk kepada kematian peserta tetapi berdasarkan kepada sumbangan peserta pada kadar 1 - 3%;
	2. Sumbangan kasar takaful motor tetap sepanjang tahun kajian pada jumlah 2.15 bilion;
	3. Pertumbuhan sumbangan kasar takaful motor pada kadar 3 – 30%
	4. Semua pengendali takaful am menawarkan pelan takaful wakaf seperti dalam (1).
Model M4	Jumlah kutipan wakaf tunai = Sumbangan kasar takaful motor x *Pertumbuhan sumbangan kasar takaful motor* x *Sumbangan peserta takaful motor*

Jumlah kutipan wakaf tunai = 2.15 b x (*3%-30%*) x (*1-3%*) |

Nota: italic – merujuk kepada input (pembolehubah) rawak

HASIL KAJIAN

Jadual 7 menunjukkan hasil analisis diskriptif bagi kutipan wakaf tunai menggunakan empat model ramalan (M1 – M4). Kutipan purata yang boleh diperoleh daripada M1 ialah sebanyak RM109,517 dan nilai median ialah RM109,881. Kutipan minimum dan maksimum yang mungkin diperoleh ialah RM91,871 dan RM126,275 masing-masing. Manakala 25% dan 75% persentil ialah RM104,998 dan RM114,077.

Bagi M2, kutipan purata, median, maksima dan minima adalah 936,012, 933,698, 1 juta dan 883,627 masing-masing (rujuk Jadual 7). Nilai 25% dan 75% persentil ialah 919,217 dan 951,293. Semua nilai ini adalah lebih besar berbanding nilai yang sama ditunjukkan apabila mengguna andaian dalam M1. Keadaan ini memang dijangkakan kerana M2 mengandaikan semua pengendali takaful am di Malaysia menawarkan pelan takaful wakaf motor yang mempunyai fitur yang sama dengn IWE. Syer pasaran takaful motor di Malaysia merangkumi peratusan sebanyak 20.3%. Sedangkan dalam M1, hanya sebuah pengendali takaful yang menawarkan IWE dengan penguasaan pasaran takaful motor sekitar 10-13% sahaja. Peningkatan yang berlaku adalah lebih daripada 5 kali ganda bagi setiap nilai yang dicerap.

Hal yang sama dapat diperhatikan dalam semua nilai yang dicerap bagi M3 di mana nilai purata, median, maksima, minima, 25% dan 75% persentil bagi kutipan wakaf tunai menunjukkan peningkatan berbanding nilai yang sama dalam M1 dan M2. Nilai-nilai tersebut ditunjukkan dalam Jadual 7 (lajur 4 di bawah M3). Ini disebabkan oleh M3 mengandaikan bahawa kutipan wakaf tunai adalah tertakluk kepada 1 – 3% daripada sumbangan peserta dalam takaful motor, bukannya tertakluk kepada jumlah kes kematian akibat kemalangan yang dialami peserta seperti dalam M1 dan M2. Oleh sebab itu, bilangan peserta yang menyertai pelan takaful motor sudah tentu lebih ramai berbanding dengan peserta yang mengalami kematian akibat kemalangan.

Kutipan wakaf tunai semakin menunjukkan peningkatan di bawah andaian M4. Nilai purata, median, maksima dan minima ialah RM59.5 juta, RM61 juta, RM83 juta dan RM26 juta. Manakala bagi 25% dan 75% persentil, kutipan wakaf tunai adalah sebanyak RM51 juta dan RM69.8 juta (Jadual 7, lajur 5 -M4). Dapat diperhatikan M4 memberikan kutipan yang tertinggi berbanding model yang lain, M1 – M3 untuk semua nilai yang dinyatakan di atas. Kutipan wakaf tunai di bawah M4 lebih tinggi daripada M1 dan M2 kerana kutipan wakaf tunai dalam M4 adalah tertakluk kepada bilangan peserta yang menyertai pelan takaful motor, bukannya bilangan peserta yang mengalami kematian akibat kemalangan. Secara puratanya, bilangan peserta yang bernasib baik adalah lebih ramai berbanding peserta yang akan mengalami musibah (Rejda, 2017). Maka, keadaan ini secara langsung menyebabkan peningkatan dalam jumlah kutipan wakaf tunai. Selain daripada itu, kutipan wakaf tunai di bawah M4 juga adalah lebih tinggi berbanding M3 dan ini disebabkan oleh andaian bahawa semua pengendali takaful am menawarkan pelan takaful wakaf motor, sedangkan dalam M3, diandaikan hanya sebuah sahaja pengendali takaful am yang berbuat demikian.

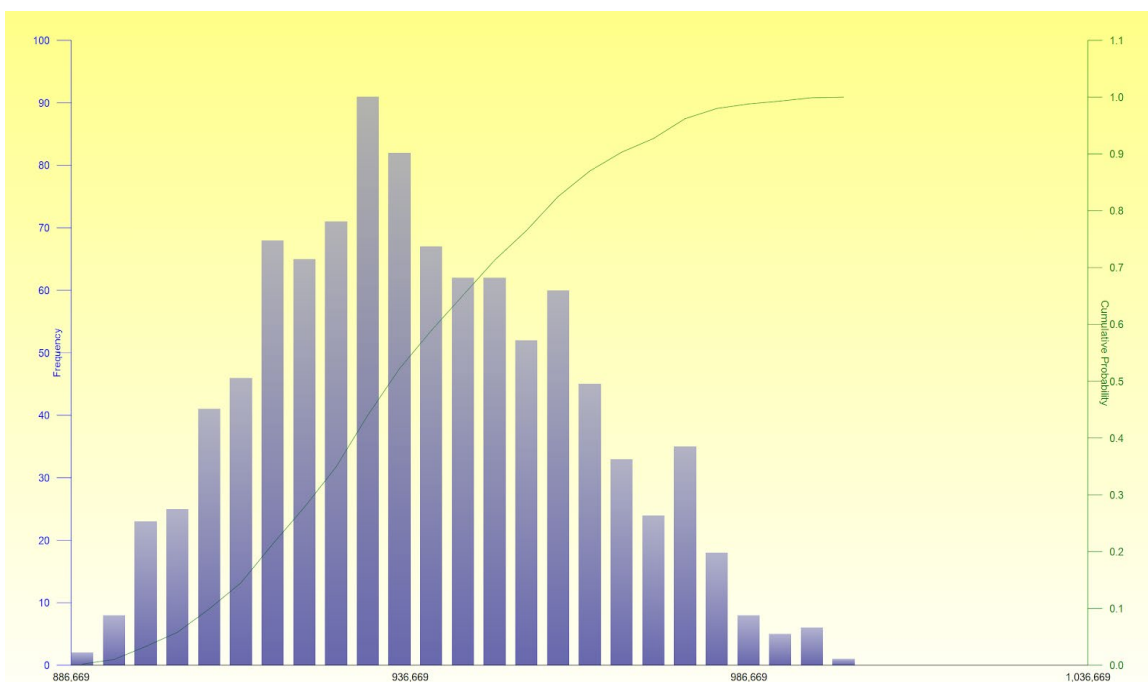JADUAL 7: Hasil Analisis Diskriptif M1 – M4 – Kutipan Dana Wakaf Tunai

	Kutipan dana wakaf tunai (RM)			
	M1	**M2**	**M3**	**M4**
Purata	109,517	936,012	6,9 juta	59.5 juta
Median	109,811	933, 698	7 juta	61 juta
Maksima	126,275	1juta	10.4 juta	83 juta
Minima	91,871	883,627	3 juta	26 juta
25% persentil	104,998	919,217	5.8 juta	51 juta
75% persentil	114,077	952,193	8 juta	69.8 juta

Rajah 1 - 4 menunjukkan taburan (histogram) kutipan wakaf tunai yang diperoleh berdasarkan M1 – M4 dengan nilai kekerapan dan kebarangkalian. Rajah 1 mempamirkan bahawa dengan andaian dalam M1, kebarangkalian untuk memperoleh kutipan melebihi RM104,000 ialah 0.75, namun kemungkinan untuk memperoleh kutipan yang melebihi RM114,000 adalah pada 0.25. Maka, untuk memperoleh kutipan dengan nilai maksima adalah lebih sukar (nilai kebarangkalian adalah lebih kecil). Manakala, kutipan pada nilai purata (atau median) mempunyai kebarangkalian 0.5. Satu dapatan yang menarik ialah di bawah M1, tiada kemungkinan untuk mendapat kutipan kurang dari RM92,0000.
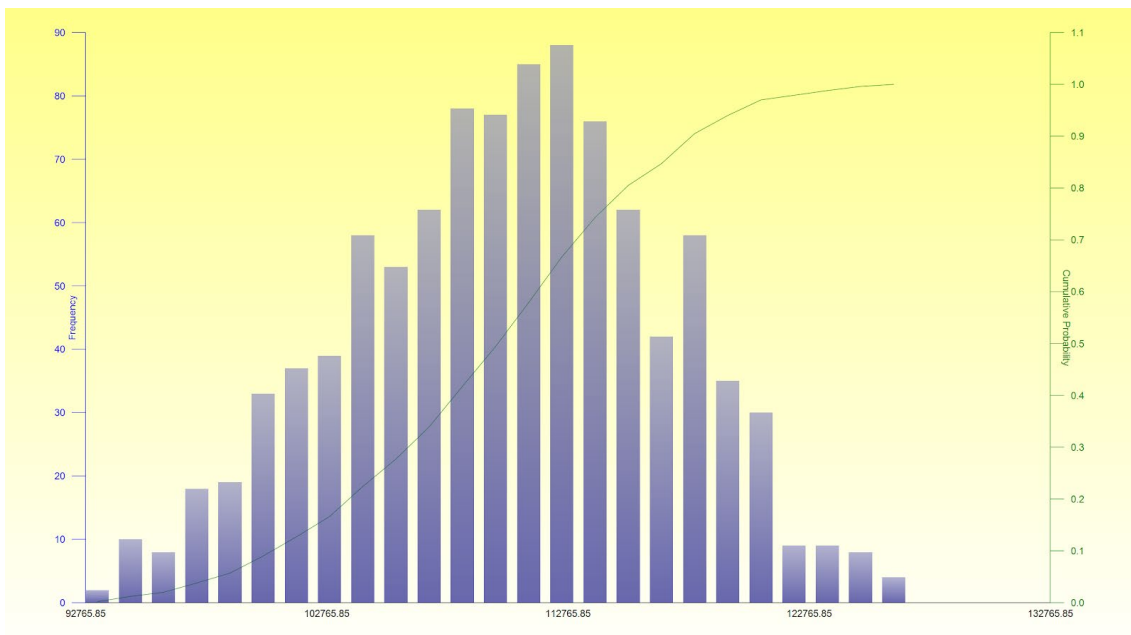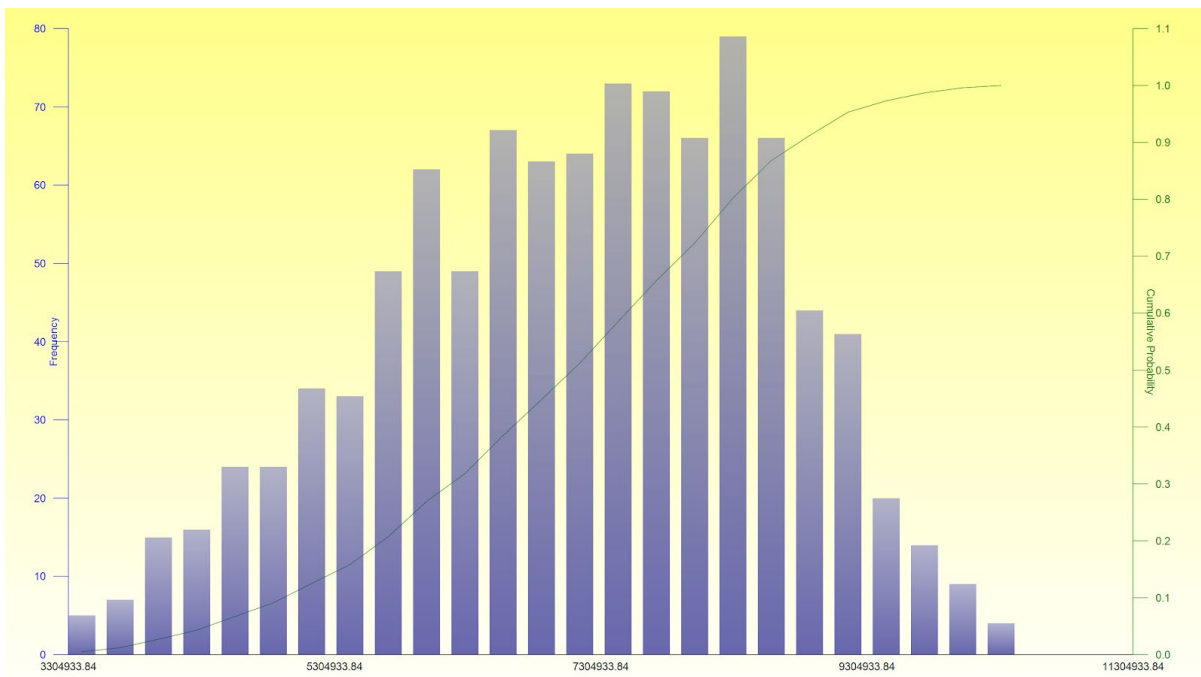
RAJAH 1: Taburan Kutipan Wakaf Tunai – M1

Berdasarkan Rajah 2, wujud kemungkinan yang tinggi (0.95) untuk mendapat kutipan wakaf tunai kurang daripada RM986,000. Dengan kata lain, jumlah kutipan yang lebih daripada jumlah ini adalah lebih sukar. Rajah 2 juga menunjukkan bahawa sekurang-kurangnya jumlah kutipan wakaf tunai yang boleh diperoleh ialah RM886,000 dan lebih. Di bawah andian M2, kebarangkalian yang sama memberikan jumlah kutipan yang lebih tinggi, sebagai contohnya dengan kebarangkalian 50%, jumlah kutipan yang mungkin di capai ialah RM936,000 berbanding dibawah M1 sebanyak RM109,000.
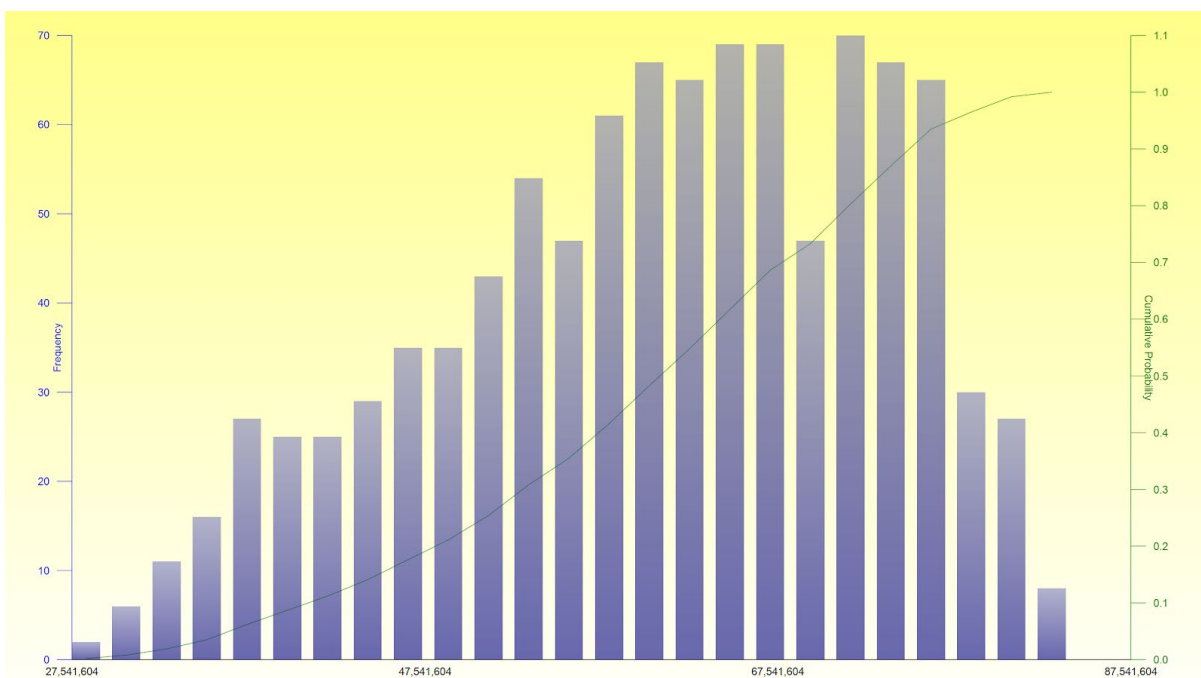

RAJAH 2: Taburan Kutipan Wakaf Tunai – M2

Selari dengan hasil analisis diskriptif dalam Jadual 2, Rajah 3 dan 4 menunjukkan jumlah kutipan yang semakin meningkat untuk kebarangkalian yan sama di bawah andaian M3 dan M4. Wujud kemungkinan yang tinggi iaitu 90% untuk kutipan yang kurang daripada RM9.3 juta dan tiada kemungkinan untuk memperoleh kutipan wakaf tunai yang kurang daripada RM3 juta (rujuk Rajah 3). Di bawah andaian M4, jumlah kutipan wakaf tunai yang kurang daripada RM67 juta boleh diperoleh

dengan kebarangkalian 0.7, dan sekurang-kurangnya jumlah kutipan wakaf tunai yang boleh diperoleh ialah RM27 juta dan lebih (Rajah 4).

RAJAH 3: Taburan Kutipan Wakaf Tunai – M3

RAJAH 4: Taburan Kutipan Wakaf Tunai – M4

PERBINCANGAN DAN KESIMPULAN

Terdapat dua hasil kajian yang penting yang boleh disimpulkan dalam kajian ini. Pertama, berdasarkan M2 yang mana manfaat wakaf berdasarkan kematian peserta takaful motor, jumlah kutipan wakaf tunai dijangka meningkat apabila semua pengendali takaful am diandaikan menawarkan pelan takaful wakaf. Jumlah maksima yang boleh diperoleh ialah RM1 juta berbanding dengan jika hanya sebuah pengendali takaful yang terlibat yang berjumlah RM126,000 sahaja (berdasarkan M1). Perbezaan yang wujud adalah sangat ketara iaitu peningkatannya lebih kurang 8 kali ganda. Hasil kajian juga menunjukkan bahawa

(dengan andaian semua pengendali takaful terlibat) kebolehcapaian kutipan wakaf yang berjumlah kurang daripada RM986,000 adalah sangat tinggi iaitu 90%. Selain itu, tiada kemungkinan untuk mendapat kutipan yang lebih rendah daripada RM886,000.

Kedua, berdasarkan M3 dan M4 yang mana manfaat wakaf yang diwujudkan melalui potongan daripada sumbangan dibuktikan mempunyai potensi yang lebih tinggi dalam meningkatkan kutipan wakaf tunai berbanding dengan manfaat wakaf yang tertakluk kepada kematian peserta takaful motor (sepertimana andaian yang digunakan dalam M1 dan M2). Hasil kajian mendapati bahawa kutipan wakaf tunai maksima berdasarkan M4 mencecah sehingga RM83 juta. Potensi kebolehcapaian juga sangat memberangsangkan di mana sekurang-kurangnya jumlah kutipan wakaf tunai yang boleh diperoleh ialah RM27 juta dan lebih dan 70% kemungkinan untuk memperoleh jumlah kutipan yang kurang daripada RM67 juta. Berdasarkan ramalan jumlah kutipan sebanyak RM67 juta, mungkin beberapa projek mega yang masih dalam fasa pembangunan dapat dibiayai seperti yang ditunjukkan dalam Jadual 8. Maka, tidak keterlaluan jika dikatakan bahawa takaful wakaf mempunyai potensi yang besar sebagai mekanisme kutipan wakaf tunai di negara ini.

JADUAL 8: Projek Mega Wakaf yang Masih dalam Pembangunan

Negeri	Projek	Keperluan dana yang diperlukan (RM)
Negeri Sembilan	Sekolah Menengah Islam Seremban	5 juta
Johor	Wakaf bangunan Sekolah Agama di seluruh negeri Johor	163. 25 juta
	Wakaf mesin hemodialisis	4.5 juta
	Wakaf bangunan Darul Fuqan	6 juta
Terengganu	Pusat Hemodialisis MAIDAM	5 juta
Kelantan	Pusat pengajian Pondok Bunut Payong, di Kota Bharu, Kelantan	5.6 juta
Kedah	Inap Waqf	2.4 juta
Perak	Fasa 2 Hotel Wakaf Taiping, Perak	25 juta
	Pusat Hemodialisis Wakaf di 4 lot tanah di daerah Manjung, Perak	10 juta
	Waqf Business Centre (WBC)	20 juta
	Wakaf Bangunan Kediaman Pelajar Universiti Sultan Azlan Shah (USAS) di Kuala Kangsar, Perak	15 juta
	Wakaf Ilmu Program Mumtaz	10 juta

Sumber: myWakaf (2020); MAIJ (2020); MAIPk (2020)

Dapatan kajian yang pertama menekankan bahawa kerjasama dan gabungan tenaga antara pengendali takaful and institusi wakaf sangat diperlukan dalam menyokong kemampanan pembangunan wakaf di Malaysia. Penawaran pelan-pelan yang berasaskan wakaf perlu diberikan perhatian oleh pengendali takaful sebagai satu tanggungjawab sosial korporat (CSR) dan pembangunan ummah. Ini sejajar dengan potensi institusi kewangan dan ekonomi Islam dalam menyokong Matlamat Pembangunan Lestari (SDG) untuk menyelesaikan masalah kemiskinan (Sadiq dan Mushtaq, 2015). Walaupun pelan takaful wakaf bukan berasaskan keuntungan (Mohamad, Suzana dan Ishak, 2016), penawaran produk-produk seperti ini di pasaran sebagai satu strategi CSR mampu menaikkan reputasi pengendali takaful, seperti mana yang telah dibuktikan dalam kajian-kajian lepas (contohnya, Bhattacharya et al., 2020; Mahmood and Bashir, 2020; Zahari et al., 2020). Oleh itu, pengendali-pengendali takaful perlu berganding bahu untuk membangunkan lebih banyak pelan yang seumpamanya di pasaran. Ia boleh direalisasi melalui pembentukan satu konsortium, sama seperti model yang digunakan dalam Pelan Perlindungan Tenang, iaitu pelan takaful khas untuk golongan B40 di Malaysia.

Berdasarkan dapatan kajian kedua, secara langsung ia mengimplikasikan peranan masyarakat dalam memberi sokongan kepada pembangunan dan perkembangan wakaf negara. Persetujuan daripada peserta takaful wakaf untuk menyalurkan beberapa peratus (contohnya 1 -3%) daripada jumlah sumbangan mereka dalam tabung wakaf mampu meningkatkan jumlah kutipan wakaf tunai secara mendadak. Sumbangan takaful tertakluk kepada kepada peruntukan undang-undang insurans/takaful yang berkaitan dengan *cash before cover'* yang menetapkan pengendali takaful am berlesan tidak dibenarkan mengambil sebarang risiko berkenaan dengan sijil takaful motor kecuali sumbangan yang perlu dibayar diterima oleh pengendali takaful (Akta Perkhidmatan Kewangan Islam, 2013). Maksudnya,

setiap peserta takaful motor perlu membayar dahulu sumbangan takaful sebelum mendapat sebarang perlindungan yang dinyatakan di bawah sijil takaful. Dengan kata lain, peserta tidak mempunyai pilihan untuk menangguhkan atau tidak mahu membayar sumbangan pelan takaful motor jika ingin menggunakan kenderaan mereka dan mendapat perlindungan takaful. Oleh sebab itu, dari perspektif pengendali takaful, pembayaran sumbangan peserta adalah lebih terjamin dan mempunyai disiplin yang tinggi. Secara langsung keadaan ini menjamin kelangsungan amaun yang diperuntukan untuk manfaat wakaf tunai. Dari perspektif peserta pula, potongan 1 – 3% peratus daripada sumbangan takaful yang dibayar oleh peserta sebagai manfaat wakaf mungkin tidak memberi bebanan yang serius kepada peserta takaful. Hal ini berdasarkan kepada kajian Mohamad Suhaimi dan Ab Rahman (2017) yang mendapati bahawa individu yang berpendapatan sederhana dan tinggi sanggup untuk berwakaf serendah RM1 dan RM5 sebulan. Ini bermakna individu sanggup berwakaf serendah RM12 dan RM60 setahun. Tambahan pula, potongan ini juga hanya dilakukan secara 'one-off' kerana sumbangan takaful motor adalah secara tahunan. Aktiviti berwakaf melalui pelan takaful memberi ruang kepada setiap lapisan masyarakat di Malaysia untuk melaksanakan tanggungjawab kepada ummah tanpa perlu meninggalkan komitmen kewangan yang lain (Nurul Hidayah, 2019).

Secara kesimpulannya, pelan takaful wakaf mempunyai potensi yang besar untuk meningkatkan kutipan wakaf tunai. Justeru, semua pihak yang berautoriti termasuk pengendali takaful dan institusi berkaitan wakaf perlu menggembleng tenaga dan usaha untuk menyebar luaskan kepentingan dan kelebihan pelan ini. Inisiatif daripada YWM dan JAWHAR dalam meningkatkan kesedaran masyarakat tentang wakaf juga sangat bermakna dalam menjayakan dan memastikan kelangsungan pelan ini. Justeru, pelan takaful wakaf wajar dipertimbangkan oleh setiap umat Islam sebagai salah satu mekanisme kewangan peribadi yang menyediakan perancangana kewangan masa hadapan yang hakiki dan seimbang antara aspek kewangan dan kerohanian. Sekaligus berupaya mengembangkan dan meningkatkan ekonomi ummah.

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The Moderating Effect of Board Independence on the Relationship Between Enterprise Risk Management and Firm Performance

Nurul YusrinaYusri
Hafizuddin-Syah B.A.M
Rubayah Yakob
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

Board independence is important to balance the diverse shareholder interests and promote public trust. Indeed, board independence allows decision-making to be free from managerial influence. Furthermore, board independence has been proven in the past to influence risk management practices and firm performance. Therefore, this study aims to examine the moderating effect of board independence on the relationship between enterprise risk management and firm performance among manufacturing companies listed in Bursa Malaysia. The financial data for 130 manufacturing firms were collected from DataStream for the period of 2014 to 2018. The multiple regression showed that enterprise risk management has a positive relationship with firm performance. This relationship further strengthens by the presence of board independence as shown in the moderating effect analysis. This study enriches empirical evidence on the argument by the contingency theory of risk management towards valuation effect.

Enterprise Risk Management (ERM) Disclosure and Its Determinant Factors for Public Listed Firms in Malaysia

Sharifah Faatihah Syed Mohd Fuzi
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia and
Faculty of Administrative Science and Policy Studies,
Universiti Teknologi MARA, Malaysia

Mohamat Sabri Hassan
Romlah Jaffar
Mohd. Hafizuddin Syah Bangaan Abdullah
Faculty of Economics and Management
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

This study develops an enterprise risk management (ERM) implementation disclosure index (EMRDI) and examines factors that influence ERM disclosure (ERMD) among publicly listed firms in Malaysia. The currents study contributes to the ongoing debate on the detailed assessment of ERM implementation based on narrative disclosure. Further, this study includes some new determinant factors that can contribute to ERMD. Based on an exploratory factor analysis, this study develops the ERM implementation disclosure framework, which consists of governance and culture, performance/process, strategy, and communication approach as the four components of the ERMDI. A multivariate regression analysis reveals that board size, board independence, female board representation, auditor quality, and dividend yield are positively associated with ERMD. Further, this study also reveals that leverage and liquidity risks are negatively associated with ERMD. Additional analysis indicates the relationship between growth opportunities and ERMD. Due to the requirement by Malaysian regulators towards the disclosure of risk management and internal control practices by publicly listed firms, thus this study can fill the gap in assessing ERM implementation using publicly available information. Further, this study proves that firm uses ERM information as a signalling initiative to differentiate themselves with others. Besides, in information asymmetry, the board of directors can encourage ERMD to mitigate agency problems.

Keywords: corporate governance, COSO, determinant factors, enterprise risk management disclosure

The Effect of Managerial Overconfidence on Tax Management: the Moderating Role of Transfer Pricing

Eva Herianti
Sugiono Paulus
Faculty of Economics and Business,
Universitas Muhammadiyah Jakarta, Indonesia

Memed Sueb
Nanny Dewi Tanzil
Faculty of Economics and Business,
Universitas Padjajaran Bandung, Indonesia

ABSTRACT

This study aims to examine and analyze the effect of managerial overconfidence on tax management with transfer pricing as the moderating variable. The sample of this study was manufacture companies listed in the Indonesian Stock Exchange (IDX) in the 2014-2019 period. The year of analysis ranged from 2015 to 2019. The sample was selected using the purposive sampling technique. The analysis was made using ordinary least square (OLS) with Eviews, version 10. It was found that managers' overconfidence negatively and significantly affected tax management, and transfer pricing moderated such effect. The present study confirmed the agency theory's efficiency perspective, showing that overconfident managers may minimize tax management practice due to risk contingency or because they consider the long-term benefit cost.

Keywords: Managerial Overconfidence, Transfer Pricing, and Tax Management

INTRODUCTION

Tax management is defined as the main concerns for researchers recently. This is due to the fact that this taxation is considered as the primary source of income for the government, and the objective of this taxation is in order to finance all government activities, thus if the tax is not achieved, it can have a negative effects on government activities. One of some factors leads this tax target ratio not to be achieved is due to tax management conducted by taxpayers. Tax management is defined as the ability to pay a low amount of tax over a long period of time (Minnick and Noga 2010). Aggressive tax management is not always related to unethical or illegal behavior, because tax provisions still have a gap for taxpayers to manage taxes in order to minimize the tax payments.

The phenomenon of low tax revenue occurred in January 2019, where the tax revenue for manufacturing industry decreased by 16.2%. The Ministry of Finance of the Republic of Indonesia reported that tax revenue throughout January 2019 increased by 8.82%, from Rp. 79 trillion to Rp. 86 trillion. Although tax revenue attributable to the manufacturing industry increase positively, tax revenue from this manufacturing sector increase negatively, even though this manufacturing sector contributed 20.8% to tax revenue. The source of tax revenue for this manufacturing sector recorded at Rp. 16.77 trillion or decreased by 16.2%. The decline in tax revenue from this manufacturing sector was due to accelerated tax refunds that surged in January 2019. The amount of VAT refunds made of Rp. 16.4 trillion or a growth of 40.66%, whereas in January 2018, the nominal VAT refund of Rp. 11.6 trillion (Nasional Kontan, 2019).

This occasion demonstrates that managers have an important role as an integral part in choosing a tax management strategy and are responsible for allocating company's resources to improve the performance and prosperity for shareholders. Managers attempt to improve the performance of business lines, managers tend to focus on corporate profits, where it will divert company resources for purposes of tax management. Effective tax management is considered to be one of some significant drivers of bottom-line performance as managers invest company resources into company activities to optimize tax management, thereby resulting in lower taxes and higher earnings performance (Minnick and Noga 2010).

The present study focused on the manager's role in affecting the organization's tax management strategy. Managers are obliged to make accurate decisions since they may affect the wealth of the

shareholders (Zulaikah et al., 2019). However, their decision is not always accurate due to bounded rationality, i.e., uncertainties that emerge during the decision-making process that potentially leads to managers' underestimation or overestimation (Trianita & Basuki, 2020).

Bounded rationality, according to Weinstein (1980), may lead managers to a cognitive bias known as overconfidence. It is defined as a psychological bias used by researchers to define a phenomenon in a manager's decision-making process (Park et al., 2020). Managerial overconfidence is one of the manager's characteristics that may influence the managerial decision-making process (Bertrand & Schoar, 2003; Habib & Hossain, 2013; Hsieh et al., 2018; Malmendier & Tate, 2005). Overconfidence makes managers more confident with their own ability, knowledge, and information accuracy than with others'.

There are three types of overconfidence such as overestimation, overplacement, and overprecision (Moore and Healy, 2008). Overestimation focuses on the individual's belief in the level of ability, performance or potential for success of that individual. Overplacement focuses on the individual's belief that himself is better than others, and while overprecision focuses on the individual's belief that his belief is more accurate than the reality that occurs. This overconfidence manager leads the managers to be more optimistic regarding the achievement of the expected results (Bazerman and Moore 2012) and tends to express an excessive level of confidence in their capabilities (Trianita & Basuki, 2020).

Managers who have this overconfidence tend to be more innovative, invest excessively, dare to take risks, delay distributing dividends to shareholders, conduct earnings management, invest in research and development costs, and even commit fraud in financial reporting (Bharati et al., 2016; Goel & Thakor, 2008; Hirshleifer et al., 2012; Hribar & Yang, 2016; Malmendier & Tate, 2008; Malmendier et al., 2011; Schrand & Zechman, 2012; Kouaib & Jarboui, 2017). In addition, managers who have overconfidence tend to do tax avoidance in order to achieve the expected targets, and increase the reputation and credibility of managers for their ability to manage taxes (Chyz, 2013; Hsieh et al., 2018; Lee, 2016; Presley & Abbott, 2013).

The effect of this manager overconfidence on tax management, it can be known based on two perspectives, namely negative and positive perspectives. This negative perspective on the effect of manager overconfidence on tax management will result in a positive regression coefficient. This means that managers who have overconfidence tend to conduct tax management with the aim of minimizing tax payments. This happens because the manager tends to overestimate his knowledge and skills, underestimate the risk of tax sanctions, and considers himself capable of controlling any events and problems in the organization. This condition shows the excessive optimism of the manager.

Managers who have overconfidence tend to promote the tax management practice, which is reflected in the low effective corporate tax rate (Olsen and Stekelberg, 2016). This condition is because tax management is an effective way to achieve profit targets and increase the company's cash flow (Phillips & Rego, 2003; Desai & Dharmapala, 2009; Hanlon, 2005). The motivation of managers to do tax management is to minimize corporate tax payments, so that the manager's goal to fulfill their interests is achieved in accordance with agency theory from the opportunistic side of the manager. The action of this managerial opportunism in the term of tax management is to obtain a bonus or incentive for achieving the company's profit target and reduce the company's cash outflow as a result of higher tax payments.

From the positive perspective, managerial overconfidence may result in a negative regression coefficient. In other words, overconfident managers tend to lower tax management practices. This condition occurs because overconfident managers are viewed as more effective in taking advantage of the growth potential, allowing them to enhance the organization's performance, instead of minimizing tax payment that contains risk contingency. Overconfident managers tend to dare to make investments to create innovation, leading to the organization's performance improvement (Hirshleifer et al., 2012; Graham et al., 2013).

Some previous studies have tried to examine the effect of this overconfidence manager on tax management and the results of these studies indicate research inconsistencies. Aliani et al. (2016) conducted a study on whether CEO and managerial overconfidence had a significant effect on tax planning in the Tunisian context. The result of this study indicates that CEO and managerial overconfidence has a negative and significant effect on tax planning. Olsen & Stekelberg (2016), Hsieh et al. (2018), and Sumunar et al. (2019) show that this overconfidence manager has a positive and significant effects on tax avoidance. Ferris et al. (2013) show that managers who have overconfidence tend to be more involved in international mergers and acquisitions strategy, especially in countries with lower tax rates.

Some previous literature tries to explain that based on various strategies from tax management such as transfer pricing, tax haven utilization, thin capitalization, and debt financing (Pendse, 2012; Janský & Prats, 2013; Rossing & Rohde, 2014). One of several strategies of this tax management through transfer pricing is that the main mechanism conducted out by several multinational companies is for the

practice of transferring profits with the aim of minimizing tax payments (Richardson & Taylor, 2015; Brock & Pogge, 2014; Muhammadi et al., 2016). There are several factors can affect the choice of managers in conducting this transfer pricing, namely that the company is in order to obtain operating profits and also that the interests of the subsidiary is to be able to maintain cash flow conditions (Tang 2016), tax regulations and differences in transfer pricing regulations from each country (Rossing & Rohde, 2014; Borkowski, 2010).

Based on the description of the background of the research has been described above, it shows that this research is important to be conducted by researcher is in order to estimate and also analyze the effect of overconfidence manager and transfer pricing on tax risk: The role of tax management as a moderating variable.

THEORETICAL REVIEW AND HYPOTHESES DEVELOPMENT

Agency Theory

In Agency theory, agency and principal hold a contractual relationship that allows agents to fulfill the principal's interest (Jensen & Meckling, 1976). Such a contractual relationship may trigger the agent's opportunistic or efficient behavior, depending on the contract. From an opportunistic perspective, the agents will act to fulfill their interests since they have information the principals do not have. The agent's opportunistic behavior may imply agents' motivation to achieve the target profit and to conceal information deemed less profitable for the principal, driving them not to show the company's actual condition.

The agent's opportunistic behavior is reflected through bonus mechanism, debt covenant, or political cost. A bonus mechanism is the bonus plan for agents when achieving the target profit, a condition exploited by the agent through an accounting gap. Debt covenant refers to the company's loan to the creditor. Hence, the company uses the accounting gap to obtain debt. Political cost focuses on the company's high profit that draws media attention, causing the agent to use accounting policies to defer profit from the current period to the future period. Therefore, agency cost arises as a result of the conflict of interest between the agent and the principal. Agency cost is defined as the company's expense due to conflict of interest such as audit cost, bonding cost, or recovery cost of the company reputation.

Different from the agent's opportunistic behavior, in the efficiency contract, the agent should be able to optimize the company prospect and contribute to the principal's interest (Holthausen, 1990). In the efficient covenant, decision-making process and internal control are affected by accounting methods. They show a detailed covenant structure, such as requirements in debt agreement or compensation for agents (Christie & Zimmerman, 1991). An efficient contract focuses on the accounting policies to communicate private information to the principals to help them make an investment decision by understanding the company prospect (Holthausen, 1983).

Managerial Overconfidence

Managers play a pivotal role in making the company decision, making them one of the key drivers of the company. Since their decision may influence the company policies, Accurate considerations are needed in every decision-making process. However, their decision is not always accurate due to bounded rationality, i.e., uncertainties that emerge during the decision-making process that potentially leads to overestimation or underestimation (Trianita & Basuki, 2020).

Overestimation and underestimation are psychological biases leading to overconfidence. Overconfidence is the psychological bias in a manager's decision- making process (Park et al., 2020). Their decision bias, as a result of their overconfidence, makes managers believe in their own ability, knowledge, and accuracy than others' (Bhandari and Deaves, 2006). Overconfident managers tend to overestimate their company prospects (Malmendier & Tate, 2006).

According to Moore and Healy (2008), overconfidence is classified into three types, namely overestimation, overplacement, and overprecision. Overestimation means that individuals believe in their ability, performance, and potential success. Overplacement means that individuals believe more in their own ability and others' ability. Overprecision shows that individuals believe that their belief is more accurate than reality. Overconfident managers have high optimism toward their expected results (Bazerman & Moore,2012).

Overconfident managers tend to exaggerate their ability to gain profit, which may create the difference in real performance and expected performance and eventually affect the company's financial management (Hribar & Yang (2016). Previous studies found that overconfident managers make more

investment than other managers (e.g., Hsieh et al., 2014; Schrand & Zechman, 2012; Malmendier & Tate, 2008). Meanwhile, Galasso and Simoe (2011) found that companies with overconfident managers are more innovative.

Transfer Pricing

Transfer pricing refers to a product or service price from one division that is transferred to another division within the same company or across companies with special relationships (Santosa & Suzan, 2018). It is the main choice of many multinational companies to minimize their tax payment (Taylor & Richardson, 2012; Brock & Pogge, 2014; Muhammadi & Ahmed, 2016). Factors underlying management's transfer pricing practice are operational profits, opportunities to help the subsidiary maintain cash flow (Tang, 2016), and differences in tax and transfer pricing regulations in each country (Rossing & Rohde, 2015; Borkowski, 1997).

Transfer pricing is carried out to move the company profit to countries with lower tax tariffs (Blouin et al., 2013; Huizinga & Laeven, 2008). Choosing countries with lower tax tariffs using transfer pricing is a strategy implemented by many big companies (Klassen & Laplante, 2012). However, the government holds the right to protect its fiscal basis from tax management practices through transfer pricing. Accordingly, in the last few decades, many countries exhibit various ways to fight against transfer pricing practice by implementing transfer pricing regulation for a multinational company. Such regulation requires companies to report more data on related party transaction.

Tax Management

Tax management refers to the ability to pay a low amount of tax in a long period (Minnick & Noga, 2010). Tax management may increase the company's value because the profit target could be achieved by lowering the tax burden. Tax management is an effective way to achieve the target profit and enhance the organization's cash flow (Phillips & Rego, 2003; Desai & Dharmapala, 2009; Hanlon, 2005). Its primary purpose is to minimize the company tax payment, allowing the company to achieve its target profit and minimize its outflow.

Tax management may be beneficial for the company. However, it is crucial to consider the cost and long-term benefits when managing tax. In addition to opportunity cost, other costs are needed when managing tax, such as transaction cost, implicit tax, and uncertainty. Since a company will only be involved in tax planning when they receive a clear benefit, benefits from tax management activities should be higher than the cost.

Big companies, according to Hanlon and Slemrod (2010), have a bigger risk of loss when managing their tax because it increases the political cost. As big companies tend to be monitored by public media, managers should not exhibit aggressive behavior in managing their taxes. Aggressive tax management does not necessarily relate to unethical or illegal behavior, considering that gaps in tax provision allow tax management to minimize the tax payment.

Managerial Overconfidence and Tax Management

Managers' decision-making process may be affected by one of the managers' characteristics, overconfidence (Bertrand & Schoar, 2003; Habib & Hossain, 2013; Hsieh et al., 2018; Malmendier & Tate, 2005). Managerial overconfidence refers to an individual's commitment to achieve a certain target and exaggerate his or her ability, competency, and knowledge to obtain a professional reputation and others' recognition (Hsieh et al., 2018). Overconfidence makes managers more confident with their own ability, knowledge, and information accuracy than others'.

Previous studies found that overconfident managers tend to be more innovative, make overinvestment, take greater risk, postpone dividend payment, perform profit management, make investments in research and development, or even commit financial statement fraud (Bharati et al., 2016; Goel & Thakor, 2008; Hirshleifer et al., 2012; Hribar & Yang, 2016; Malmendier & Tate, 2008; Malmendier et al., 2011; Schrand & Zechman, 2012; Kouaib & Jarboui, 2017).

Agency theory is the theoretical basis to explain the effect of overconfidence on tax management. This theory describes the contractual relationship between an agent and the principal (Jensen and Meckling, 1976) where the agent attempts to fulfill the principal's needs. Agency theory provides two perspectives related to the contractual relationship between the agent and the principal, namely opportunistic behavior and efficient contract.

From the perspective of opportunistic behavior, the agent may use the information to fulfill his or her own interest instead of the principal's interest, resulting in a conflict of interest. To minimize the

conflict of interest, the principal spends monitoring costs to the external auditor. Opportunistic behaviors drive managers to exploit gaps in tax regulation, allowing them to manage tax to minimize the company tax payment.

In other words, overconfident managers tend to manage the tax to minimize the tax payment. This condition occurs because they tend to exaggerate their knowledge and skill, underestimate the risk of tax sanctions, and consider themselves to be capable of controlling any events and problems in the organization, showing an overoptimistic attitude. Overconfident managers tend to be overoptimistic. Moreover, they tend to manage their tax, reflected in the company's lower effective tax (Olsen & Stekelberg, 2015). Tax management is an effective way to achieve the target profit and enhance the organization's cash flow (Desai & Dharmapala, 2009; Hanlon, 2005; dan Phillips et al., 2003).

From an efficient contract perspective, overconfident managers tend to decrease tax management practice because they are more effective in taking advantage of the growth potential, allowing them to enhance the organization's performance, instead of minimizing tax payment that contains risk contingency. Overconfident managers tend to dare to make investments to create innovation, leading to the organization's performance improvement (Hirshleifer et al., 2012; Graham et al., 2010).

Aggressive tax management may harm the company's reputation (Hanlon, 2005) and lead to a decline in the company stock price (Hanlon & Slemrod, 2009). It occurs because shareholders view aggressive tax management as a potential future loss (Cook et al., 2017; Drake et al., 2017). While tax management is helpful to reduce the company tax payment in a short-term period, it may adversely affect the company's long-term sustainability. Hence, tax management practice should consider the long-term cost and benefit for the company.

Previous studies show an inconsistency related to the effect of managerial overconfidence on tax management. A study conducted by Aliani et al. (2016) in the Tunisian context found that CEO overconfidence negatively and significantly affects tax planning. Olsen & Stekelberg (2015), Hsieh et al. (2018), and Sumunar et al. (2019) found that managerial overconfidence positively and significantly affects tax avoidance. Ferris et al. (2013) highlight that overconfident managers are more involved in merger strategy and international acquisition, especially in countries with lower tax tariffs. Based on the two perspectives (i.e., opportunistic behavior and efficiency) that may influence the hypotheses directions, it was expected that:

H1: Managerial overconfidence affects tax management.

Managerial Overconfidence, Transfer Pricing, and Tax Management

Transfer pricing refers to a product or service price from one division that is transferred to another division within the same company or across companies with special relationships (Santosa & Suzan, 2018). Transfer pricing is carried out to move the company profit to countries with lower tax tariffs (Blouin et al., 2013; Huizinga & Laeven, 2008). Choosing countries with lower tax tariffs using transfer pricing is a strategy implemented by many big companies (Klassen & Laplante, 2012).

Overconfident managers are more involved in merger strategy and international acquisition, especially in countries with lower tax tariffs (Ferris et al., 2013). This strategy is done to manage tax by transfer pricing to countries with lower tax tariffs (Hsieh et al., 2018). Overconfident managers tend to see a condition as an opportunity to fulfill their interests. From the manager's opportunistic perspective, overconfident managers manage their tax to accumulate funds and make investments through research and development costs or expansion by merger and acquisition, consistent with the company's tax management.

Running international business activities in countries with low tax tariffs may help the company to lower its tax obligation. It may serve as a tool for overconfident managers to fulfill their investment ambition and to avoid paying higher taxes for their profit.

Meanwhile, from an efficiency perspective, overconfident managers will minimize transfer pricing practice, which will eventually minimize tax management practice. It is carried out because aggressive tax management is viewed to have risk contingencies such as damaged company reputation or company stock price drop. As Hanlon (2005) found, aggressive tax management may harm the company's reputation and lead to a decline in the company stock price (Hanlon & Slemrod, 2009). In addition, shareholders may view aggressive tax management as a potential future loss (Cook et al., 2017; Drake et al., 2017). Based on the two perspectives (i.e., opportunistic behavior and efficiency) that may influence the hypotheses directions, it was expected that:

H2: Managerial overconfidence affects tax management through moderation of transfer pricing.

RESEARCH METHODOLOGY

Population and Sample

Population is defined as an event, or a group of people that becomes the focus of a study (Sekaran, 2006). Population of this study was manufacturing companies listed in Indonesia Stock Exchange in 2014-2019 period. The analysis made from 2015-2019, while 2014 was used as the basis to estimate the sales and asset growth as the proxy of managerial overconfidence. The sample of this study was selected using purposive sampling technique with the following criteria.

1. Manufacturing companies listed in IDX in 2014-2019 period.
2. The company should have at least five companies in sub sector to estimate the managerial overconfidence per subsector to obtain data variation, as suggested by Isnugrahadi and Kusuma (2009).
3. The company financial statement is published in Rupiah; companies with financial statement in other than rupiah was excluded.
4. The manufacturing companies should not experience loss during the selected period, otherwise they were excluded.
5. The manufacturing companies should have related party receivable in their financial statement. Companies with no such a transaction were excluded.

Variable Definition and Measurement

1. Managerial Overconfidence
   Managerial overconfidence is defined as managers' overassessment of the companies' long-term performance (Malminder and Tate, 2005). Companies with overconfident managers tend to make higher investments than others (Bown and Sarma, 2007). In the present study, managerial overconfidence was measured by adapting Kouaib and Jarboui's (2017) study.

   $$\text{Sales growth} = \alpha + \beta 1 \text{ Asset growth} + e$$

   Cross sectional regression is done based on the formula above. In other words, regression is carried out per year and per subsector, resulting in residual values. Residual value of > 0 was given score 1, indicating managerial overconfidence, and vice versa.

2. Transfer Pricing
   Transfer pricing refers to a product or service price from one division that is transferred to another division within the same company or across companies with special relationships (Santosa & Suzan, 2017). Transfer pricing was measured following Melmusi (2016), which was also applied in Herianti and Marundha's study (2019).

   $$Related\ Party\ Transaction = \frac{Related\ Party\ Receivables}{Total\ Receivables}$$

3. Tax Management
   Tax management refers to the ability to pay a low amount of tax in a long period (Minnick & Noga, 2010). According to Kohlhase and Pierk (2019), one of the measurements of a company's tax management is Cash ETR, as explained by Dyreng, Hanlon, & Maydew (2008), Lisowsky (2010), and Wilson (2009). In this study, Cash ETR was adapted from Hanlon and Heitzman's study (2010).

   $$Cash\ ETR = \frac{Payment}{Profit\ Before\ Tax}$$

4. Controlling Variables
   The controlling variables in this study were Current ETR and sales growth. Current ETR describes the comparison between the current tax burden to profit before tax. Current ETR was employed to control the effect of managerial overconfidence on tax management that was measured using Cash ETR. Companies engaged with tax management practice through ETR would manage their current tax burden, which will influence the company tax payment. The

higher the current ETR, the higher the Cash ETR. Hanlon and Heitzman's formula (2010) was adopted to measure Current ETR.

$$Cash\ ETR = \frac{Current\ Tax\ Burden}{Profit\ Before\ Tax}$$

Sales growth refers to the difference in sales in year t and sales in year t-1 and divided by sales in year t-1. Sales growth was employed to control the effect of managerial overconfidence on tax management that was measured using Cash ETR. Companies engaged with tax management practice through ETR would manage their current tax burden, which will influence the company's profit. As the company's higher revenue means higher profit, it may affect the company tax payment. Hence, higher sales growth may increase tax management (measured using Cash ETR). The formula conveyed by Wu et al. (2015) was employed to measure the sales growth.

$$Sales\ Growth = \frac{Sales\ t - Sales\ t - 1}{Sales\ t - 1}$$

RESULT AND DISCUSSION

Result

This study used manufacturing companies listed on Indonesia Stock Exchange in the 2014-2019 period. The year analysis ranged from 2015 to 2019. 2014 was used as the baseline to calculate the asset growth and sales growth, the proxies of managerial overconfidence. Table 1 below displays the sampling process.

TABLE 1: Sampling Process

No.	Subsector	Consistent emittent in 2014-2019	Non-rupiah Financial statements	Loss before income tax	No Related Party receivables
Basic Industry and Chemical					
1.	Cement	6	0	(1)	0
2.	Ceramics, Glass, Porcelain	7	0	(4)	(1)
3.	Metal and Allied Product	13	(2)	(6)	(1)
4.	Chemicals	8	(3)	0	(1)
5.	Plastics and Packaging	10	(2)	(3)	(1)
6.	Animal Feed	5	0	(2)	0
7.	Wood Industries	2	0	0	0
8.	Pulp and Paper	7	(3)	0	(2)
9.	Others	2	0	0	0
Miscellaneous Industry					
1.	Machinery and Heavy Equipment	2	0	0	0
2.	Automotive and Components	11	(2)	(3)	(1)
3.	Textile, Garment	16	(9)	(3)	(2)
4.	Footwear	2	0	0	0
5.	Cable	6	(1)	0	(1)
6.	Electronics	1	0	0	0
Consumer Goods Industry					
1.	Food and Beverages	19	0	(6)	(3)
2.	Tobacco Manufacturer	4	0	0	0
3.	Pharmaceuticals	9	0	(1)	(2)
4.	Cosmetics and Household	5	0	(2)	0
5.	Houseware	3	0	0	0

Source: Secondary data, 2021

Descriptive statistic was applied to depict the variables of the study related to the mean and standard deviation.

TABLE 2: Descriptive Statistic

Variable	N	Mean	Std. Dev
CETR	130	0.509	1.368
TPBR	130	0.294	0.309
RETR	130	0.298	0.389
PPEN	130	0.112	0.317

Description: CETR (Tax management), TPBR (Transfer Pricing), RETR (Current ETR), PPEN (Sales growth).
Source: Secondary data, 2021

As shown in table 2, 130 observations were carried out. Tax management was found to have a mean score of 0.509 and a standard deviation of 1.368. Transfer pricing was found to have a mean score comprising 0.294 and a standard deviation comprising 0.309. Current ETR was found to have a mean score of 0.298 and a standard deviation of 0.389. Sales Growth was found to have a mean score comprising 0.112 and a standard deviation comprising 0.317. Out of 130 observations, 61 observations showed that managers have overconfidence, while 69 observations showed that they do not have overconfidence.

Correlational analysis was made to measure the linear strength of the two variables of the study. However, as Ghozali (2013) states, it does not indicate a functional relationship. In other words, it does not differ independent variables from the dependent ones. The following table 3 presents the correlation test result.

TABLE 3: Correlation

Variable	CETR	OVER	TPBR	RETR	PPEN
CETR	1.000				
OVER	-0.143	1.000			
TPBR	-0.026	0.045	1.000		
RETR	0.896	-0.111	-0.089	1.000	
PPEN	-0.051	0.313	0.203	-0.082	1.000

Description: CETR (Tax management), TPBR (Transfer Pricing), RETR (Current ETR), PPEN (Sales growth).
Source: Secondary data, 2021

Table 3 shows the highest correlational value with positive direction in Current ETR and Cash ETR (i.e., 0.896). This value indicates that the higher the current tax burden, the higher the tax management. In other words, companies' tax management practice affects their tax payment.

The second highest positive correlation was found between growth and managerial overconfidence (i.e., 0.313). This condition indicates that higher growth sale is associated with higher level of overconfidence. In other words, managers who can increase their sales growth are more confident with their ability to improve company performance through achieving target profit.

In this study, the main effect and moderating effect are moderated using Baron & Kenny (1986). Table 4 below displays the main effect and moderating effect test.

TABLE 4: The Result of Hypothesis Testing

Independent Variable	Expectation	Dependent Variable: CETR OLS Method Main Effect Test		Dependent Variable: CETR OLS Method Moderating Effect Test	
		Coef.	T-stat.	Coef.	T-stat.
Constant	±	-0.377	-2.471**	-0.557	-2.667***
OVER	-	-0.153	-1.982**	0.061	0.793
TPBR	+	███████	███████	0.580	2.226**
TPBR*OVER	-	███████	███████	-0.764	-2.335**
RETR	+	3.144	4.773***	3.193	4.781***
PPEN	+	0.171	1.814*	0.215	2.020**
F-Stat.		176.238***		110.638***	
Adjusted R^2		0.802		0.809	
DW		2.029		1.989	
Obs.			130		

Description: CETR (Tax management), OVER (Managerial Overconfidence), TPBR (Transfer Pricing), TPBR*OVER (Transfer Pricing – Managerial Overconfidence interaction), RETR (Current ETR), PPEN (Sales growth). Multicollinearity Test result of the main effect VIF OVER (1,368), RETR (2,176), PPEN (2,374). Multicollinearity Test result of the moderating effect VIF OVER (1,697), TPBR (7,384), TPBR*OVER (8,962), RETR (3.032), PPEN (2,683), indicating that there is no multicollinearity. The DW value ranged from 1.54-2.64 (Winarno, 2015), meaning that there is no autocorrelation *, **, ***

Significance at level 10%, 5%, 1%.

Source: Secondary data, 2021

Table 4 displays the H1 test result. H1 states that managerial overconfidence affects tax management. The test result showed that the coefficient value of the effect of managerial overconfidence on tax management was -0,153; the t-statistic was -1,982 and significance level of < 0,05. The result indicates that managerial overconfidence negatively and significantly affects tax management, showing that H1 was supported.

In H2, it was stated that transfer pricing moderates the effect of managerial overconfidence on tax management. The test result showed that the coefficient value of the effect of managerial overconfidence*transfer pricing on tax management was -0.764, t-statistic of -2,335, at the significance level of < 0,05. The result indicates that the interaction of managerial overconfidence and transfer pricing negatively and significantly affects tax management, indicating that H2 was supported.

Discussion

The test result showed that managerial overconfidence negatively and significantly affects tax management. Tax management refers to the ability to pay a low amount of tax in a long period (Minnick & Noga, 2010). According to Kohlhase and Pierk (2019), one of the measurements of a company's tax management is Cash ETR, as explained by Dyreng, Hanlon, & Maydew (2008), Lisowsky (2010), and Wilson (2009).

The result of this study indicates that overconfident managers may minimize tax management. This condition shows that overconfident managers are viewed as more effective in taking advantage of the growth potential, allowing them to enhance the organization's performance instead of minimizing tax payment that contains risk contingency. Overconfident managers tend to dare to invest in innovation, leading to the organization's performance improvement. (Hirshleifer et al., 2012; Graham et al., 2010).

Aggressive tax management may harm the company's reputation (Hanlon, 2005) and lead to a decline in the company stock price (Hanlon & Slemrod, 2009). It occurs because shareholders view aggressive tax management as a potential future loss (Cook et al., 2017; Drake et al., 2017). While tax management is helpful to reduce the company tax payment in a short-term period, it may adversely affect the company's long-term sustainability. Hence, tax management practice should consider the long-term cost and benefit for the company. This is consistent with Aliani et al. (2016) who found that CEO overconfidence negatively and significantly affects tax planning in the Tunisian context.

The result indicates that the interaction of managerial overconfidence and transfer pricing negatively and significantly affects tax management. Transfer pricing refers to a product or service price from one division that is transferred to another division within the same company or across companies with special relationships (Santosa & Suzan, 2018). It is the main choice of many multinational

companies to minimize their tax payment (Taylor & Richardson, 2012; Brock & Pogge, 2014; Muhammadi & Ahmed, 2016). Factors underlying managers' transfer pricing practice include operational profits, opportunities to help the subsidiary maintain cash flow (Tang, 2016), and differences in tax and transfer pricing regulations in each country (Rossing & Rohde, 2015; Borkowski, 1997).

The result indicates that the interaction of managerial overconfidence and transfer pricing negatively and significantly affects tax management. From an efficiency perspective, overconfident managers may prefer not to engage in transfer pricing practice, minimizing tax management practice. It is done because aggressive tax management is viewed to have risk contingencies such as damaged company reputation or company stock price drop. As Hanlon (2005) found, aggressive tax management may harm the company's reputation and lead to a decline in the company stock price (Hanlon & Slemrod, 2009). In addition, shareholders may view aggressive tax management as a potential future loss (Cook et al., 2017; Drake et al., 2017).

CONCLUSION, IMPLICATION, AND LIMITATION

The present study concludes that managerial overconfidence negatively and significantly affects tax management, and transfer pricing moderates such an effect. The present study confirms the agency theory's efficiency perspective, stating that overconfident managers may minimize tax management practice due to risk contingency or because they consider the long-term benefit cost. Overconfident managers are viewed as more effective in taking advantage of the growth potential, allowing them to enhance the organization's performance, instead of minimizing tax payment that contains risk contingency. Overconfident managers tend to dare to invest in innovation, leading to the organization's performance improvement.

The present study also provides information related to tax management on a sub-sector basis, which is still scarce. Separating managerial overconfidence in sub- sector levels is important because each manufacturing sub-sector has different characteristics. In this study, there were at least five companies in each sub-sector to obtain data variation, as suggested by Isnugrahadi and Kusuma (2009). The regulators are recommended to consider the effect of managerial overconfidence in tax management within an efficiency context. This study has some limitations. First, this study only used managerial overconfidence, transfer pricing, and tax management to describe the phenomena of the study, limited to the use of the proxy. Second, the present study only applied a quantitative approach without applying a qualitative approach to complete the statistical results.

Future studies are recommended to examine other variables that affect tax management, such as corporate governance, managerial capabilities, and other variables to improve the adjusted R2. It is also recommended to use triangulation method to complete the quantitative results to attain a more in-depth description of the phenomena.

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Individual Independent Director's Attributes and Related Party Transactions

Nurshahirah Abd Majid
Mohd Mohid Rahmat
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

Kamran Ahmed
School of Accounting,
La Trobe University, Australia

ABSTRACT

This study examines whether the individual independent directors' attributes discipline related-party transactions (RPTs) engagement among listed companies in Malaysia. Based on the sample of 426 listed firms in Malaysia for the year 2017 with a total of 1552 observations, the study finds that independent directors' tenure and actively attending board meetings affect firm engagement in RPTs. However, individual independent director's financial literacy, audit committee membership, and active in attending the audit committee meeting do not affect the RPT-types' engagement, either RPT-efficient or RPT-conflict. Overall, this result offers limited empirical support to the point of view where the findings will provide input to the regulators and policymakers that the capability of individual independent directors in fulfilling their responsibility is truly limited. This circumstance may provide some implications for practices and future research for further exploration.

Keywords: Independent Directors, Related Party Transactions, conflict of interest, individual, attributes, tenure

Firma Audit Pakar Industri dan Pendedahan Urusniaga Pihak Berkaitan

Nur Hidayah Waad
Hamezah Md Nor
Mohd Mohid Rahmat
Harlina Mohamed On
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRAK

Kajian ini mengkaji hubungan antara firma audit pakar industri (FAPI) dan pendedahan urusniaga pihak berkaitan (UPB) yang mana bukti empirikal hubungan antara keduanya masih kurang. UPB merupakan uruniaga yang sukar diaudit dan oleh itu juruaudit yang mempunyai kepakaran industri diandaikan dapat mengesan dan meningkatkan pendedahan UPB. Sejumlah 646 buah syarikat tersenarai di Malaysia yang melibatkan sebanyak 3,230 pemerhatian dari tahun 2014 sehingga 2018 digunakan untuk menguji hipotesis kajian ini. FAPI diukur menggunakan nilai ambang penguasan pasaran yang berbeza iaitu FAPI 10% dan FAPI 20% untuk mendapatkan hasil kajian yang lebih mantap (robust). Kaedah analisis kandungan digunakan untuk mengumpul data UPB. Berdasarkan ujian regresi, hasil kajian mendapati hubungan antara FAPI dan UPB adalah bergantung pada nilai ambang FAPI. Secara khususnya kajian ini mendapati nilai ambang penguasaan pasaran yang lebih tinggi (FAPI 20%) berhubungan secara positif dengan pendedahan UPB. Hasil kajian ini dapat memberi bukti tambahan bahawa firma audit yang mempunyai kepakaran industri yang tinggi dapat memberikan perkhidmatan audit yang lebih berkualiti menerusi peningkatan pendedahan UPB berbanding firma audit bukan pakar. Badan pengamal dan pengawalselia perakaunan boleh mempertimbangkan ciri kepakaran industri dalam mengawal selia syarikat-syarikat yang terbabit dalam mana-mana kontrak yang melibatkan pihak-pihak berkaitan.

Kata kunci: Firma audit pakar; Kualiti audit; Nilai ambang; Pengkhususan industri; Urusniaga pihak berkaitan

ABSTRACT

This study examines the relationship between industry specialist audit firm (ISAF) and related party transaction disclosure (RPT), for which empirical evidence of a relationship between the two is still lacking. RPT is the most difficult transactions to audit and therefore auditors with industry expertise are assumed to be able to detect and increase the disclosure of RPT. A total of 646 listed companies in Malaysia involving a total of 3,230 observations from year 2014 to 2018 were used to test the hypotheses of this study. ISAF was measured at different market share thresholds namely ISAF 10% and ISAF 20% to provide more robust results. Content analysis method was used for RPT data collection. Based on regression test, the results of the study found that the relationship between ISAF and RPT is dependent on the threshold value of ISAF. Specifically, this study found that higher market share threshold (ISAF 20%) was positively related to RPT disclosure. The results of this study can provide additional evidence that audit firm with high industry expertise are able to provide better quality audit services through increased of RPT disclosure compared to non-specialist audit firm. Accounting practitioners and regulators may consider industry expertise criteria in regulating companies involved in any contracts involving related parties.

Corporate Governance, Key Audit Matters and Value Relevance

Nor 'Asyiqin Abu
Faculty of Accountancy,
Universiti Teknologi Mara, Melaka, Malaysia

Romlah Jaffar
Mohamat Sabri Hassan
Mohd Mohid Rahmat
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia, Malaysia

ABSTRACT

The introduction of the ISA 701 *Communicating Key Audit Matters (KAMs) in the Independent Auditor's Report* by the International Auditing and Assurance Standards Board (IAASB) is a major landmark in enhancing the value of the auditor's report. The purpose of KAMs is to provide additional information about the auditor's work, and their disclosure inevitably increases investors' knowledge, allowing investors to make more informed decisions. This study examines two empirical issues related to KAMs. Firstly, this study investigates how the board of directors' (BOD) characteristics affect the KAMs since the monitoring roles by board are argued to influence KAMs, as the frameworks for determining KAMs start with those matters communicated to those charged with governance (TCWG). The board characteristics examined in this study are board size, board independence, female board members, committed board of directors, and board meetings. Secondly, this study investigates whether KAMs are of value relevance among investors. According to Ohlson (1995), financial information is considered useful to investors if it is associated with market values such as share prices. The effect of KAMs on share prices is measured four months after the financial year-end. The study's sample includes 931 firm-year observations on companies listed on Bursa Malaysia between 2016 and 2019. KAMs are measured based on KAMSCORE which takes into account two dimensions: the quantity and the nature of the issues disclosed. KAMSCORE includes five components: the number of KAMs, new KAM issues, and KAMs with fraud, litigation, contingent liability, and liquidity risk. The results of ordinary least squares (OLS) reveal that board independence and female representation on the board are positively and significantly associated with KAMs. This means that independence and female directors demand a more rigorous audit effort, increase the transparency of financial information presented to investors, have a higher risk aversion, and are more conscientious about monitoring activities, all of which align with KAMs disclosure. On the other hand, the effect of board size, committed board, and the number of board meetings are not statistically significant on KAMs. In terms of the effect of KAM implementation, the regression coefficient for KAMSCORE towards share price is positive and statistically significant, meaning that KAMs is useful and value-relevant to investors. In terms of contribution, this study would demonstrate to policymakers and regulators that efforts to improve auditors' reporting are not in vain. Implementation of KAMs should be extended to unlisted companies and even to government entities. In terms of corporate governance, this study demonstrates that effective governance results in enhanced investor information. To conclude, it is necessary to emphasise that our study has several limitations. Firstly, some variables associated with accounting information's value relevance and KAMs may be omitted. Second, this study demonstrates the validity of such a view only in the Malaysian context.

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